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1862.



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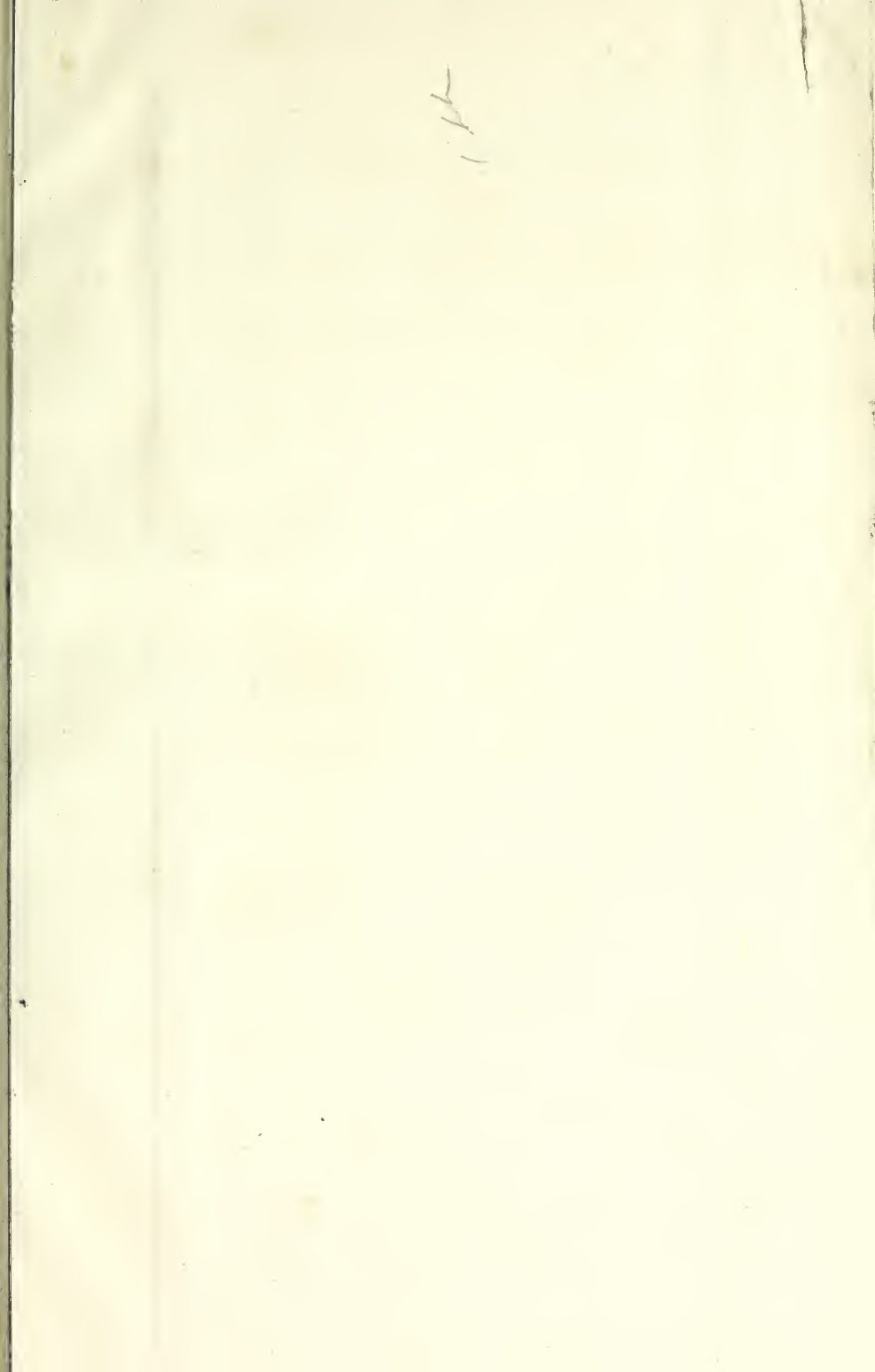
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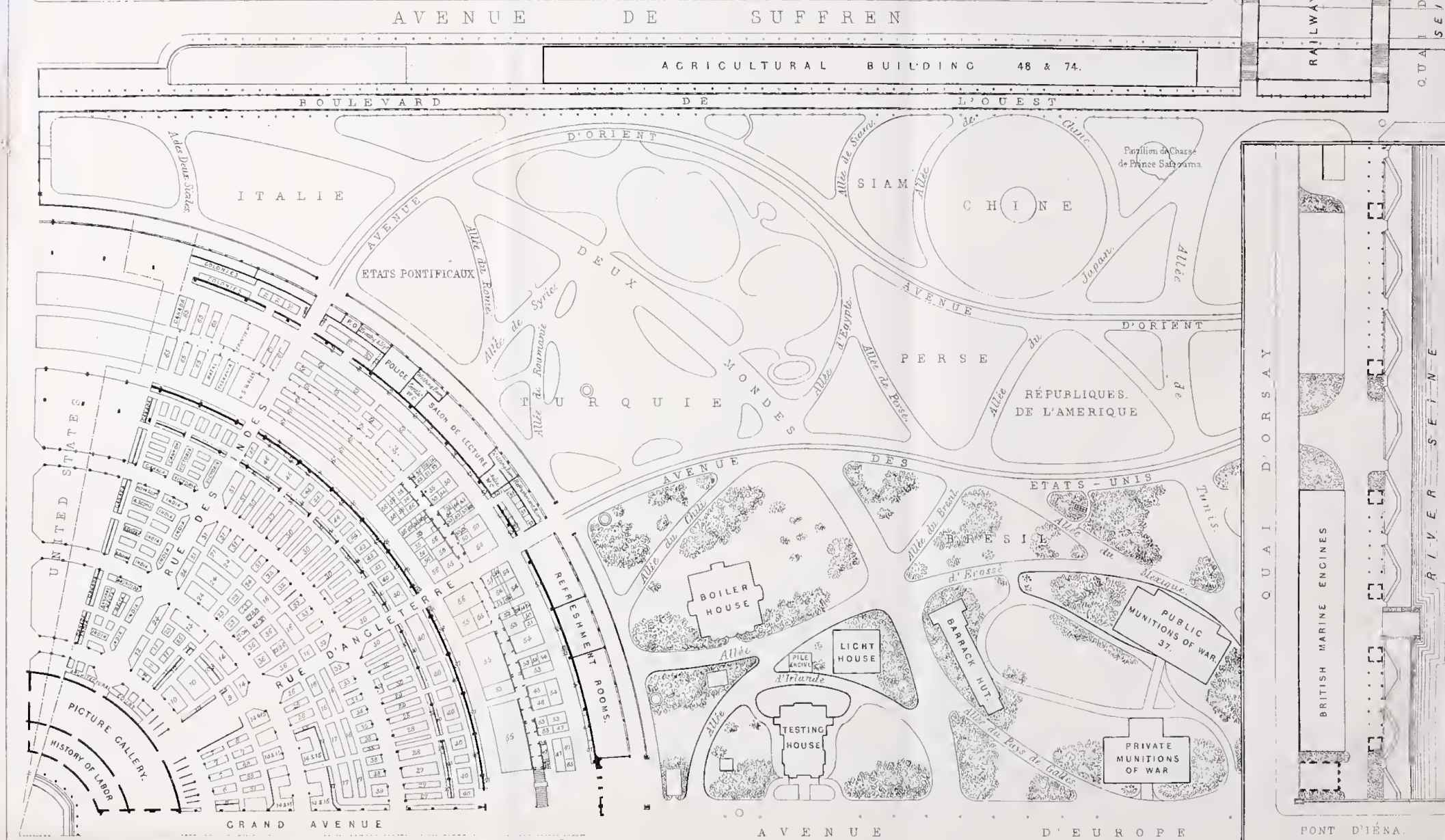
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PLAN OF THE BRITISH SPACE.



PARIS UNIVERSAL EXHIBITION OF 1867.

CATALOGUE

OF

THE BRITISH SECTION.

CONTAINING

A LIST OF THE EXHIBITORS OF THE UNITED KINGDOM
AND ITS COLONIES, AND THE OBJECTS
WHICH THEY EXHIBIT.

IN ENGLISH, FRENCH, GERMAN, AND ITALIAN.

WITH

STATISTICAL INTRODUCTIONS,
AND
AN APPENDIX

IN WHICH MANY OF THE OBJECTS EXHIBITED ARE MORE FULLY DESCRIBED,
TOGETHER WITH

A LIST OF THE AWARDS

MADE TO BRITISH AND COLONIAL EXHIBITORS BY THE
INTERNATIONAL JURY.



LONDON: PRINTED FOR
HER BRITANNIC MAJESTY'S COMMISSIONERS AND SOLD BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND 30 PARLIAMENT STREET.

MDCCCLXVIII.

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BRITISH GUIANA	Wm. Walker, Esq., late Government Secretary of British Guiana, 48 Hilldrop-road, Tufnell-park, London, Special Commissioner in Europe
	P. L. Simmonds, Esq., Hôtel de Russie, Paris, Agent in France
	Hon. Thomas D'Arcy McGee, Minister of Agriculture, Ottawa, Chairman and Executive Commissioner in Europe
	J. C. Taché, Esq., Deputy Minister of Agriculture, Ottawa
CANADA	R. S. M. Bouchette, Esq., H.M. Chief Commissioner of Customs, Ottawa
	Commissioners for Canada
	M. Gustave Bossange, 25 Quai Voltaire, Paris, Hon. Commissioner in France
	J. H. Daley, Esq., Secretary to Chairman of Commissioners
CAPE OF GOOD HOPE	J. B. Currey, Esq., 13 Leinster-gardens, London, Special Executive Commissioner
	A. De Pass, 7 Pembridge-crescent, Bayswater, London, Special Honorary Commissioner
HONGKONG	[This space allotted to W. Hewitt & Co., 32 King William-street, London Bridge.]
	(Dr. J. Forbes Watson, Chief Commissioner.
INDIA	A. A. Dowleas, Esq., Commissioner for Bengal.
	Major Michael, Commissioner for Madras.
	(Dr. George Birdwood, Commissioner for Bombay.

JAMAICA	[No Commission appointed, owing to recent disturbances. One Merchant sends goods.]
LEEWARD ISLANDS (including DOMINICA)	[It appears improbable that any contributions will be sent.]
MALTA	Hon. Sir Victor Houlton, K.C.M.G., Chairman and Executive Commissioner
MAURITIUS	{ Hon. Felix Bedingfield, Mauritius, Chairman and Executive Commissioner James Morris, Esq., 8 Theresa-terrace, Hammersmith, Commissioner in Europe Honorary Commissioners:—Charles Farquhar Shand, Esq., William Gillespie Dickson, Esq., Gustave Adam, Esq., and Elysée Lienard
NATAL	{ Hon. T. Shepstone, Special Executive Commissioner W. C. Sargeant, Esq. R. I. Mann, Esq., M.D., 12 Cecil-street, Strand, London Representatives in Europe.
NEWFOUNDLAND	{ Edward Morris, Esq., St. John's, Newfoundland, Local Secretary F. N. Gisborne, Esq., 445 Strand F. F. Bennett, Esq., Arlington-house, Clifton, Bristol Commissioners in Europe
NEW SOUTH WALES	{ The Hon. T. A. Murray, Sydney, Special Executive Commissioner Charles Moore, Esq., Director of the Botanic Gardens, Sydney Captain W. C. Mayne, Agent for New South Wales, 118 Cannon-street, London E. L. Montefiore, Esq., 47 Rue Laffitte, Paris Representatives in Europe.
NEW ZEALAND	Superintendents of Provinces to act as Commissioners. John Morrison, Esq., 3 Adelaide-place, King William-street, London, Agent in England
NOVA SCOTIA	{ The Rev. Dr. Honeyman, Halifax, N.S., Secretary for Nova Scotia William Cunard, Esq.
QUEENSLAND	{ The Hon. M. C. O'Connell, Brisbane, Chairman of Commissioners in Queensland M. H. Marsh, Esq., M.P., Chairman Hon. R. G. Wyndham Herbert Sir Charles Nicholson, Bart. Arthur Hodgson, Esq. Commissioners in England Messrs. T. Nesbitt & Co., Eastcheap, London, Agents in England P. L. Simmonds, Esq., Hôtel de Russie, Paris, Agent in France
TRINIDAD	Dr. Court, 4 Rue du Centre, Quartier Beaujon, Paris, Agent in Paris Sir Redmond Barry, President of Commission in Victoria
VICTORIA	{ W. Fane de Salis, Esq., Dawley Court, Uxbridge, Chairman Thomas Randall, Esq., 14 Rue Boissy d'Anglas, Paris Thomas Sellar, Esq., Liverpool Commissioners in Europe W. B. Lewis, Esq., Secretary. Offices, 11 Great Queen-street, Westminster

LIST OF BRITISH JURORS AND ASSOCIATE JURORS, DELEGATES, AND REPORTERS,
PARIS EXHIBITION, 1867.

GROUP I.—WORKS OF ART.

Class	Nature of Class	Name of Juror	Name of Associate Juror	Name of Delegate	Name of Reporter
1	Paintings in Oil	Viscount Hardinge	John Leslie, Esq.	Capt. Hichens, R.E.	C. W. Cope, Esq., R.A. J. C. Horsley, Esq., R.A. R. Westmacott, Esq., R.A. F.R.S. Prof. Donaldson J. Marshall, Esq.
2	Other Paintings and Drawings	Hon. Spencer Cowper	S. Vincent, Esq.		
3	Sculpture and Die-sinking	A. H. Layard, Esq., M.P.	W. Calder Marshall, Esq. R.A.		
4	Architectural Designs and Models	James Ferguson, Esq.	Lieut.-Col. Scott, R.E.		
5	Engraving and Lithography	R. J. Lane, Esq., A.E.R.A. Julian Marshall, Esq.	Capt. Hichens, R.E.		

GROUP II.—APPARATUS AND APPLICATIONS OF THE LIBERAL ARTS.

LORD HOUGHTON, <i>Vice-President</i> . BAILLIE COCHRANE, Esq., M.P., <i>Associate Vice-President</i> .					
6	Printing and Books	George Clowes, Esq.	C. Rivers Wilson, Esq.	C. Thurston Thompson, Esq. M.A.	Rev. W. H. Brookfield, M.A.
7	Paper, Stationery, Binding, Painting and Drawing Materials	Warren De la Rue, Esq., F.R.S.	F. Hankey, Esq.	Rev. W. H. Brookfield, M.A.	Dr. J. W. Appell
8	Applications of Drawing and Modelling to the Common Arts	R. Redgrave, Esq., R.A.	H. A. Bowler, Esq.	Lord Sackville Cecil	R. Redgrave, Esq., R.A.
9	Photographic Proofs and Apparatus	Dr. Hugh W. Diamond	Lt.-Col. Gordon, C.B., R.E.	C. Thurston Thompson, Esq.	Dr. Diamond C. Thurston Thompson, Esq.
10	Musical Instruments	Lord Gerald Fitzgerald	Hon. Seymour Egerton, 1st Life Guards	C. Rivers Wilson, Esq.	F. Clay, Esq.
11	Medical and Surgical Instruments and Apparatus	Sir. J. F. Olliffe, M.D. . . . .	. . . . .	G. W. Yapp, Esq.	Sir. J. F. Olliffe, M.D.
12	Mathematical Instruments and Apparatus for teaching Science	C. Brooke, Esq., M.A., F.R.S.	Lieut.-Col. Strange, F.R.S., F.R.A.S.	J. C. Buckmaster, Esq.	C. R. Weld, Esq.
13	Maps and Geographical and Cosmographical Apparatus	Capt. G. H. Richards, R.N., F.R.S.	Lieut.-Col. Cooke, R.E., F.R.G.S.		Lieut.-Col. Cooke, R.E., F.R.G.S.

GROUP III.—FURNITURE AND OTHER OBJECTS FOR THE USE OF DWELLINGS.

14	Fancy Furniture	J. H. Pollen, Esq.	Owen Jones, Esq.	J. H. Pollen, Esq. M. Digby Wyatt, Esq., F.S.A.
15	Upholstery and Decorative Work	M. Digby Wyatt, Esq., F.S.A.	. . . . .	. . . . .
16	Crystal, Fancy Glass, and Stained Glass	E. W. Cooke, Esq., R.A., F.R.S.	Henry Chance, Esq.	A. S. Cole, Esq.
17	Porcelain, Earthenware, and other Fancy Pottery	Right Hon. W. E. Gladstone, D.C.L., M.P.	J. C. Robinson, Esq., F.S.A.	Capt. Hichens, R.E.
18	Carpets, Tapestry, and other Stuffs for Furniture	Peter Graham, Esq. . . . .	. . . . .	. . . . .
19	Paper Hangings	J. G. Crace, Esq. . . . .	. . . . .	C. T. Townshend, Esq.
20	Cutlery	G. Wostenholme, Esq.	C. Asprey, Esq.	A. S. Cole, Esq.
21	Gold and Silver Plate	Percy W. Doyle, Esq., C.B.	G. J. Cayley, Esq.	H. Jerminham, Esq.
22	Bronzes and other Art Castings and Repoussé Work	<i>No Juror allowed</i> . . . . .	. . . . .	A. S. Cole, Esq.
23	Clocks and Watches	C. Frodsham, Esq. . . . .	. . . . .	Lord Sackville Cecil
24	Apparatus and Processes for Heating and Lighting	J. Tyndall, Esq., LL.D., F.R.S.	Rear-Admiral Ryder, C.B., R.N.	Capt. Webber, R.E. T. W. Rowden, Esq.
25	Perfumery	Dr. W. Odling . . . . .	. . . . .	Sydney Whiting, Esq.
26	Leather Work, Fancy Articles, and Basket Work	J. M. Stanley, Esq.	F. West, Esq. . . . .	. . . . .

GROUP IV.—CLOTHING (INCLUDING FABRICS) AND OTHER OBJECTS WORN ON THE PERSON.

DUKE OF MANCHESTER, *President*. Rt. Hon. Sir W. HURTT, M.P., K.C.B., *Associate President*.

27	Cotton Thread and Fabrics	Malcolm Ross, Esq. . . . .	. . . . .	Manchester Chamber of Commerce (J. O. Murray, Esq.)
28	Thread and Fabrics of Flax	William Spotten, Esq. . . . .	. . . . .	Belfast Chamber of Commerce (John Stevelly, Esq.)
29	Combed Wool and Worsted Fabrics	W. Morris, Esq.	J. Law, Esq.	Bradford Chamber of Commerce (Charles Stead, Esq.; Alfred Illingworth, Esq.; Motley Waud, Esq.; J. V. Godwin, Esq.)

Class	Nature of Class	Name of Juror	Name of Associate Juror	Name of Delegate	Name of Reporter
30	Carded Wool and Woollen Fabrics	Edward Huth, Esq.	H. S. Way, Esq.		Leeds Chamber of Commerce (George Leach, Esq.; Thos. Nussey, Esq.)
31	Silk and Silk Manufactures.	Sir. B. S. Phillips	C. S. Haden, Esq.		Prof. Leone Levi
32	Shawls	W. H. Clabburn, Esq.	E. P. Hoare, Esq.	J. C. Buckmaster, Esq.	Prof. Leone Levi
33	Lace, Net, Embroidery, and Small Ware Manufactures	Daniel Biddle, Esq.	Thomas Ball, Esq.		Mrs. Palliser and Prof. Leone Levi
34	Hosiery and Under Clothing and Articles appertaining thereto	A. J. Mundella, Esq.	G. Wallis, Esq.		Prof. Leone Levi
35	Clothing for both Sexes	Lieut.-Col. J. H. Hudson	N. H. M. S. Maskelyne, Esq.	H. Jerningham, Esq.	N. H. M. S. Maskelyne, Esq.
36	Jewellery and Precious Stones	Earl Dudley			(Lieut.-Col. Owen, R.A., (on Artillery) Major Leahy, R.E. (on Military Equipment and Buildings, &c.) Capt. Majendie, R.A. (on Portable Arms) Sir S. Baker
37	Portable Weapons, Arms and Military Equipment	Major-Gen. Sir W. Gordon, K.C.B., R.E.	Major-Gen. C. Dickson, C.B., R.A.	Col. Younghusband, R.A.	George C. T. Bartley, Esq.
38	Travelling Apparatus and Camp Equipage	Sir S. Baker	MacLeod of MacLeod	J. C. Buckmaster, Esq.	
39	Toys	Edward Page, Esq. <i>No Juror allowed</i>		Wentworth L. Cole, Esq.	
GROUP V.—PRODUCTS (RAW AND MANUFACTURED) OF MINING INDUSTRY, FORESTRY, ETC.					
40	Mining and Metallurgy	S. H. Blackwell, Esq.	Capt. W. S. Roden	Lord Sackville Cecil.	Dr. Ansted, F.R.S.
41	Products of the Cultivation of Forests, and of the Trades appertaining thereto	Hon. F. D. McGee	P. L. Simmonds, Esq.		P. L. Simmonds, Esq. T. W. Webber, Esq.
42	Products of Shooting, Fishing, and of the Earth obtained without Cultivation	Prof. Wyville Thomson, F.R.S.	Major Michael	Wentworth L. Cole, Esq.	Prof. Wyville Thomson, F.R.S.
43	Agricultural Products (not used as Food) easily preserved	D. Hanbury, Esq.	Dr. T. Thomson, F.R.S.		Dr. T. Thomson, F.R.S.

44	Chemical and Pharmaceutical Products	Dr. Frankland, F.R.S.	Dr. D. Price	.	.	Dr. Hoffmann
45	Specimens of the Chemical Processes of Bleaching, Dyeing, Printing, and Dressing	Sir Robert Kane, F.R.S.	Dr. C. Cameron	.	.	Prof. Bolley
46	Leather and Skins	Dr. Forbes Watson, A.M., F.R.S.	J. Evershed, Esq.	.	.	J. Evershed, Esq.
GROUP VI.—APPARATUS AND PROCESSES USED IN THE COMMON ARTS.						
LORD RICHARD GROSVENOR, M.P., <i>Vice-President</i> . HUGH C. E. CHILDERS, Esq., M.P., <i>Associate Vice-President</i> .						
47	Apparatus and Processes of the Art of Mining and Metallurgy	Warington W. Smyth, Esq., M.A., F.R.S.	C. Le Neve Foster, Esq.	.	.	Warington W. Smyth, Esq., M.A., F.R.S.
48	Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests	Jacob Wilson, Esq.	Thomas Webb, Esq.	.	.	Thomas Webb, Esq.
49	Apparatus used in Shooting; Fishing Tackle, and Implements used in gathering Fruits obtained without Culture	Col. Hon. H. F. Keane, R.E.	Major J. B. Edwards, R.E.	.	.	Major J. B. Edwards, R.E. Wentworth L. Cole, Esq.
50	Apparatus and Processes used in Agriculture; Works, and in Works for the Preparation of Food	James C. Amos, Esq.	C. Wren Hoskyns, Esq.	.	.	Prof. T. C. Archer
51	Apparatus used in Chemistry, Pharmacy, and in Tan Yards	Dr. Lyon Playfair, C.B., F.R.S.	Prof. T. C. Archer	.	.	Dr. Lyon Playfair, C.B., F.R.S.
52	Prime-movers, Boilers, and Engines specially adapted to the Requirements of the Exhibition	J. Scott Russell, Esq., M.A., F.R.S.	Capt. Beaumont, R.E.	.	.	J. Scott Russell, Esq., M.A., F.R.S.
53	Machines and Apparatus in general	The Earl of Caithness Robert Mallet, Esq., F.R.S., M.I.C.E.	John Anderson, Esq.	.	.	Robert Mallet, Esq., F.R.S., M.I.C.E.
54	Machine Tools	G. W. Hemans, Esq., M.I.C.E., F.R.G.S., F.G.S.	Lieut. M'Hardy, R.E.	.	.	J. Anderson, Esq.
55	Apparatus and Processes used in Spinning and Rope Making	R. D. Marshall, Esq.	.	.	.	.
56	Apparatus and Processes used in Weaving	M. Curtis, Esq.	R. Lloyd, Esq.	.	.	P. Le Neve Foster, Jun., Esq.

Class	Nature of Class	Name of Juror	Name of Associate Juror	Name of Delegate	Name of Reporter
57	Apparatus and Processes for Sewing and for Making-up Clothing	Peter Tait, Esq.	Capt. Ponsonby Cox, R.E. Col. J. L. Tait		Capt. Hichens, R.E.
58	Apparatus and Processes used in the Manufacture of Furniture and Objects for Dwellings	Lieut.-Col. Ewart, R.E.		C. T. Townshend, Esq.	Lieut. Chadwick, R.E.
59	Apparatus and Processes used in Paper Making, Dyeing, and Printing	Wyndham S. Portal, Esq.			Capt. Beaumont, R.E.
60	Machines, Instruments, and Processes used in various Works	C. F. Beyer, Esq.		Lieut. M'Hardy, R.E.	Capt. Beaumont, R.E.
61	Carriages and Wheelwrights' Work	G. N. Hooper, Esq.	Minton Campbell, Esq.		G. N. Hooper, Esq.
62	Harness and Saddlery	Captain Fenn	Henry Götschen, Esq.	H. Sandham, Esq.	Henry Götschen, Esq.
63	Railway Apparatus	J. E. M'Connell, Esq., M.I.C.E.	Sir D. Campbell, Bart.		Sir D. Campbell, Bart.
64	Telegraphic Apparatus and Processes	Sir Charles Wheatstone, F.R.S.	Lord Sackville Cecil	G. W. Yapp, Esq.	Robert Sabine, Esq.
65	Civil Engineering, Public Works, and Architecture	C. H. Gregory, Esq., V.P. Inst. C.E.	Major A. C. Clarke, R.E.	Capt. Webber, R.E.	Capt. Ponsonby Cox, R.E. Henry Cole, Esq., C.B. (on Terra Cotta) Lieut.-Col. H. Scott, R.E. (on Cements, &c.) C. W. Merrifield, Esq., F.R.S. Capt. M. Close (on Lighthouses and Coast Illuminators)
66	Navigation and Life Boats	Captain F. Arrow	Rev. J. Woolley, LL.D.	A. S. Bury, Esq.	

GROUP VII.—FOOD (FRESH OR PRESERVED) IN VARIOUS STATES OF PREPARATION.

67	Cereals and other eatable Farina- ceous Products, and the Products derived from them	J. Druce, Esq.	C. Woolloton, Esq.	
68	Bread and Pastry	No Juror allowed		
69	Fatty Substances used as Food; Milk and Eggs	"		W. Matchwick, Esq.
70	Meat and Fish	"		

{ Dr. Hogg
{
{ E. L. Beckwith, Esq.

GROUP VIII.—LIVE STOCK AND SPECIMENS OF AGRICULTURAL BUILDINGS.

71	Vegetables and Fruit	<i>No Juror allowed</i>	Eric Baker, Esq.	W. Matchwick, Esq.
72	Condiments and Stimulants; Sugar and Confectionery	G. Moffatt, Esq., M.P.	E. L. Beckwith, Esq.	
73	Fermented Drinks	Hon. H. G. Howard		

74	Farm Buildings and Agricultural Works	<i>No Juror allowed</i>	A S. Bury, Esq.	
75	Asses, Horses, Mules	M. Higgins, Esq.	Capt. Cockerell	
76	Bulls, Buffaloes, &c.	<i>No Juror allowed</i>		
77	Sheep, Goats	"		Capt. Cockerell
78	Pigs, Rabbits	"		
79	Poultry	"		
80	Sporting Dogs and Watch Dogs	"		
81	Useful Insects	"		A. Murray, Esq.
82	Fish, Crustacea, and Mollusca	"		

GROUP IX.—LIVE PRODUCE AND SPECIMENS OF HORTICULTURAL WORKS.

DUKE OF CLEVELAND, K.G., *President*.

83	Hot-houses and Horticultural Apparatus	Prof. J. H. Balfour, M.D.	Dr. T. Thomson, F.R.S.	A. S. Bury, Esq.	Dr. T. Thomson, F.R.S.
84	Flowers and Ornamental Plants	<i>No Juror allowed</i>			Dr. Hogg
85	Vegetables	"			Rev. T. C. Bréchant
86	Fruit Trees	"			Dr. J. D. Hooker, F.R.S.
87	Seeds and Saplings of Forest Trees	Dr. J. D. Hooker, F.R.S.	Dr. Moore		
88	Hot-house Plants	James Veitch, Esq.	F. W. Brady, Esq., Q.C.		

GROUP X.

ARTICLES EXHIBITED WITH THE SPECIAL OBJECT OF IMPROVING THE PHYSICAL AND MORAL CONDITION OF THE PEOPLE.

SIR J. P. KAY SHUTTLEWORTH, BART., *Vice-President*.

89	Apparatus and Methods used in the Instruction of Children	Rev. Canon Norris, M.A.	E. C. Johnson, Esq.	H. Jerningham, Esq.	Rev. Canon Norris, M.A. E. C. Johnson, Esq. (on the Instruction of the Blind)
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Class	Nature of Class	Name of Juror	Name of Associate Juror	Name of Delegate	Name of Reporter
90	Libraries and Apparatus used in the Instruction of Adults at Home, in the Workshop, or in Schools and Colleges	Rev. W. Rogers, M.A.	Rev. M. Mitchell, M.A.	C. Rivers Wilson, Esq.	Rev. M. Mitchell, M.A.
91	Furniture, Clothing, and Food from all Sources, remarkable for useful Qualities combined with Cheapness	Viscount Canterbury	Nassau J. Senior, Esq.		R. Soden Smith, Esq., M.A., F.S.A.
92	Specimens of the Clothing worn by the People of different Countries	No Juror allowed	.		Prof. Leone Levi
93	Examples of Dwellings characterised by Cheapness combined with the Conditions necessary for Health and Comfort	"	.	Blanchard Jerrold, Esq.	Edwin Chadwick, Esq., C.B.
94	Articles of all Kinds manufactured by Skilled Workmen	"	.		Blanchard Jerrold, Esq.
95	Instruments and Modes of Work peculiar to Skilled Workmen	"	.		Blanchard Jerrold, Esq.

CAPTAIN DONNELLY, R.E., *Secretary*.
G. C. T. BARTLEY, *Assistant*.

GENERAL REGULATIONS,

DISCUSSED ON 7TH JULY, 1865, AND APPROVED BY IMPERIAL DECREE OF THE 12TH JULY, 1865.

SECTION I.

General Arrangements and System of Classification.

ARTICLE 1.—The Universal Exhibition to be held at Paris in 1867 will be open for the reception of works of art, and of the products of agriculture and industry of all nations.

It will be held in a temporary building on the Champ de Mars. Around the Exhibition building a Park will be formed for the reception of cattle and other live animals, and plants, as well as for those constructions and objects which cannot be exhibited in the main buildings.

The Exhibition will open on the 1st of April, 1867, and will close on the 31st October following.

ART. 2.—The Universal Exhibition of 1867 is placed under the direction of the Imperial Commission nominated by the decree of the 1st February, 1865.

The General Commission appointed by the same decree is charged with carrying out the decisions of the Imperial Commission.

ART. 3.—In every department of the French empire the Imperial Commission will establish, before the 25th August, 1865, a local committee, whose duty it will be:—

1. To make known throughout the whole extent of the department the measures relative to the organisation of the Exhibition, and to distribute the forms of *demands for space* and other documents issued by the Imperial Commission;

2. To point out, before the 31st October, 1865, the principal artists, agriculturists, and manufacturers, whose productions would seem specially calculated to contribute to the success of the Exhibition;

3. To promote, in the manner stated in Article 29, the exhibition of the agricultural products of the department;

4. To appoint a Commission of learned men, agriculturists, manufacturers, overseers, and other persons with special knowledge, to make a careful study of the Exhibition, and to publish a report upon the means of applying in the department the lessons which the Exhibition may have taught;

RÈGLEMENT GÉNÉRAL,

DÉLIBÉRÉ LE 7 JUILLET 1865, APPROUVÉ PAR DÉCRET IMPÉRIAL 12 JUILLET 1865.

PREMIÈRE SECTION.

Dispositions générales et Système de Classification.

ARTICLE 1^{er}.—L'Exposition universelle, instituée à Paris pour l'année 1867, recevra les œuvres d'art et les produits de l'agriculture et de l'industrie de toutes les nations.

Elle aura lieu au Champ de Mars, dans un édifice temporaire. Autour du Palais de l'Exposition sera disposé un Parc destiné à recevoir les animaux et les plantes à l'état vivant ainsi que les établissements et les objets qu'il n'est pas possible d'installer dans l'édifice principal.

L'Exposition ouvrira le 1^{er} avril 1867, et fermera le 31 octobre de la même année.

ART. 2.—L'Exposition universelle de 1867 est placée sous la direction de la Commission impériale, instituée par le décret du 1^{er} février 1865.

Le Commissaire général, nommé par le même décret, est chargé de procéder à l'exécution des mesures adoptées par la Commission impériale.

ART. 3.—Dans chaque département de l'Empire français, la Commission impériale constituera, avant le 25 août 1865, un Comité départemental, qui aura pour mission:

- 1^o De faire connaître dans toute l'étendue du département les mesures concernant l'organisation de l'Exposition, et de distribuer les formules de *demande d'admission* ainsi que les autres documents émanant de la Commission impériale;

- 2^o De signaler, avant le 31 octobre 1865, les principaux artistes, agriculteurs et manufacturiers, dont l'admission à l'Exposition universelle semblerait particulièrement utile à l'éclat de cette solennité;

- 3^o De provoquer, comme il est dit à l'article 29, les expositions de produits agricoles du département;

- 4^o D'instituer une commission de savants, d'agriculteurs, de manufacturiers, de contre-maîtres et autres hommes spéciaux, pour faire une étude particulière de l'Exposition universelle et pour publier un rapport sur les applications qui pourraient être faites, dans le département, des enseignements qu'elle aura fournis;

5. To create, by collecting subscriptions, by association, or by any other means, a fund for the purpose of enabling the overseers, husbandmen, and mechanics of the department to visit and study the Exhibition, and to pay the expenses of publishing the above-mentioned report.

ART. 4.—The Imperial Commission will make the necessary arrangements with the Ministers of War and of Marine, for obtaining a proper representation of the products of Algeria and of the French colonies in the Universal Exhibition.

ART. 5.—The Commissions appointed by the various foreign governments to direct the part which their respective countrymen will take in the Universal Exhibition are in direct communication with the Imperial Commission relative to the exhibition of the works of art and other productions of their country. Consequently, the Imperial Commission will not correspond with foreign exhibitors.

Products sent by a foreign exhibitor can only be admitted through the medium of the foreign Commission which represents him.

The foreign Commissioners will also provide as they may see fit for the carriage, the reception, the arrangement, and the return of the productions of their countrymen. They must, however, conform to the regulations laid down by the Imperial Commission.

ART. 6.—Foreign Commissioners are requested to place themselves as soon as possible in relation with the Imperial Commission, and to depute some person to represent them.

The duty of this representative will be to arrange the questions which refer to foreign exhibitors, and particularly those relative to the allotment of the whole space among the various countries, and to the manner in which each foreign section shall be arranged in the Exhibition building and in the Park.

ART. 7.—In order to facilitate the division of the space allotted to each country between the various classes of objects enumerated in Article 11, the Imperial Commission will place at the disposal of the representatives, for their guidance, the plan of the arrangement of the French section of the Exhibition building, drawn on a scale of two millimetres to a metre (1 in. to 41·6 ft. or $\frac{1}{50}$). This plan shows the arrangement, of the glass cases and counters suitable for each class of objects, as well as the shape, height, and other dimensions of the courts intended for each class. An analogous plan of arrangement, showing the manner in which the portions of the Exhibition building allotted to each foreign country will be subdivided, is to be transmitted to the Imperial Commission before the 31st October, 1865.

Plans in detail, on a scale of two centimetres to the metre (1 in. to 4·16 ft. or $\frac{1}{50}$), showing the place allotted to each exhibitor and to each separate stall, are also to be forwarded with

5° De préparer, par voie de souscription, de cotisation et par toutes autres mesures, la création d'un fonds, destiné à faciliter la visite et l'étude de l'Exposition universelle aux contre-maitres, cultivateurs et ouvrier du département, et à subvenir aux frais de publication du rapport mentionné ci-dessus.

ART. 4.—La Commission impériale s'entendra avec les ministères de la Guerre et de la Marine, pour l'organisation du concours et des Colonies françaises à l'Exposition universelle.

ART. 5.—Les Commissions constituées par les divers Gouvernements étrangers pour diriger la participation de leurs nationaux à l'Exposition universelle correspondent directement avec la Commission impériale pour tout ce qui concerne l'exposition des œuvres d'art et des autres produits de leurs pays. En conséquence, la Commission impériale ne correspond pas avec les exposants étrangers.

Tout produit présenté par un producteur étranger n'est admis que par l'intervention de la Commission étrangère, dont celui-ci relève comme exposant.

Les Commissaires étrangers pourvoient d'ailleurs, selon leurs convenances, au transport, à la réception, à l'installation et à la réexpédition des produits de leurs nationaux, en se conformant toutefois aux mesures d'ordre prescrites par la Commission impériale.

ART. 6.—Les Commissaires étrangers sont invités à se mettre le plus tôt possible en relation avec la Commission impériale et à se faire représenter auprès d'elle par un délégué. Ce délégué sera chargé de traiter les questions qui intéressent les exposants étrangers, et notamment celles qui sont relatives à la répartition de l'espace total entre les diverses nations et au mode d'installation de chaque section nationale dans le Palais et dans le Parc.

ART. 7.—Pour faciliter la répartition de l'espace attribué à chaque nation entre les diverses classes de produits indiquées à l'article 11, la Commission impériale tient à la disposition des délégués, à titre de renseignement, le plan d'installation, à l'échelle de 0^m,002 par mètre, adopté pour la section française du Palais. Ce plan indique la disposition des vitrines ou tables affectées à chaque classe de produits, ainsi que la forme, la hauteur et les autres dimensions des salles réservées à chaque classe.

Un plan analogue d'installation, déterminant les subdivisions de la partie du Palais destinée à chaque nation, devra être remis à la Commission impériale, par chaque Commission étrangère, avant le 31 octobre 1865.

Des plans de détail, à l'échelle de 0^m,020 par mètre, indiquant la place attribuée à chaque exposant et chaque installation individuelle, devront également être remis, avec la

the list of exhibitors, by each Foreign Commission, before the 31st January, 1866, in order that in arranging the interior of the Exhibition building the Imperial Commission may be able to take into consideration the wants of each country.

ART. 8.—Each foreign country may claim, for the formation of a special park, the portion of the Champ de Mars adjoining the space allotted to it in the Exhibition building. The representative of each foreign Commission will settle with the General Commissioner the plan of the paths for the circulation of the public, and of the earthworks, which will be executed at the cost and under the direction of the Imperial Commission.

Each representative will also arrange with the General Commissioner so as to leave at the disposal of the Imperial Commission the portions of the ground which may be in excess of the wants of his countrymen, or to obtain an additional piece of ground from the portions to which other representatives may have given up their claim.

In order to facilitate as much as possible the arrangements of the foreign exhibitors in the portions of the Park allotted to them, the Imperial Commission will place at the disposal of the representatives for their guidance the plans adopted by the French exhibitors for arranging the animals, plants, model cottages, &c. (Appendix A.)

ART. 9.—An official catalogue of the products of all the foreign countries will be drawn up, showing the place which they occupy either in the Exhibition building or in the Park. This catalogue will contain two alphabetical lists, one of the exhibitors, the other of the products exhibited. Foreign Commissioners are requested to send the information necessary for the preparation of the catalogue before the 31st January 1866.

ART. 10.—Those States which can only be represented in Paris in 1867 by a small number of exhibitors, and which are besides in a similar geographical position, are requested to concert together so as to ensure a methodical grouping of the products of an analogous nature.

The Imperial Commission will place at the disposal of the representatives of the Commissions of those States the plans which have been prepared, with a view to harmonise the advantages of such a grouping with the fundamental rule of national representation. In the event of these plans being approved, the Imperial Commission requests the Commissioners of those same States to appoint in Paris for each group an agent, whose duty it will be to carry them out. The architects and officers of the Imperial Commission will afford assistance gratuitously to these agents.

ART. 11.—In each section assigned to the exhibitors of the same country, the objects will be divided into 10 groups and 95 classes; viz.:—

liste des exposants, par chaque Commission étrangère, avant le 31 janvier 1866, pour que, dans les aménagements intérieurs du Palais, la Commission impériale puisse tenir compte des besoins de chaque nation.

ART. 8.—Chaque nation peut réclamer, pour en faire son parc spécial, la portion du Champ de Mars attenante à l'emplacement qui lui est attribué dans le Palais.

Le délégué de chaque Commission étrangère se concertera avec le Commissaire général pour arrêter le plan des voies publiques de circulation et des terrassements, qui doivent être exécutés aux frais et par les soins de la Commission impériale.

Chaque délégué se concertera également avec le Commissaire général pour laisser à la disposition de la Commission impériale les portions de terrain qui excéderaient les besoins de ses nationaux, ou pour obtenir un supplément de terrain dans les surfaces auxquelles d'autres délégués auraient renoncé.

Pour faciliter autant que possible l'installation des exposants étrangers dans les portions du Parc qui leur sont attribuées, la Commission impériale tiendra à la disposition des délégués, à titre de renseignement, les plans adoptés par les exposants français pour l'installation des animaux, des plantes, des spécimens d'habitation, etc. (Pièce A.)

ART. 9.—Il sera dressé un Catalogue officiel des produits de toutes les nations, indiquant la place qu'ils occupent dans le Palais ou dans le Parc. Ce catalogue contiendra deux répertoires alphabétiques, l'un des exposants, l'autre des produits. Les Commissaires étrangers sont invités à envoyer les renseignements nécessaires à la rédaction du catalogue avant le 31 janvier 1866.

ART. 10.—Les États qui ne peuvent se faire représenter, en 1867, à Paris, que par un petit nombre d'exposants, et qui sont d'ailleurs dans une même situation géographique, sont invités à se concerter pour assurer le groupement méthodique des produits de même nature.

La Commission impériale tient à la disposition des délégués des Commissions de ces États les plans qu'elle a préparés en vue de concilier les avantages d'un pareil groupement avec la règle fondamentale de la représentation par nationalité.

La Commission impériale invite les Commissaires de ces mêmes États, dans le cas où ils approuveraient ces plans, à constituer à Paris, pour chaque groupe, un syndicat chargé de procéder à leur exécution. Elle mettra gratuitement à la disposition de ces syndicats ses architectes et ses employés.

ART. 11.—Dans chaque section consacrée aux exposants d'une même nation, les objets seront répartis en 10 groupes et en 95 classes; savoir:

1st Group.—Works of art (Classes 1 to 5).

2nd Group.—Apparatus and applications of the liberal arts (Classes 6 to 13).

3rd Group.—Furniture and other articles intended for dwelling-houses (Classes 14 to 26).

4th Group.—Clothing (including fabrics), and other articles worn on the person (Classes 27 to 39).

5th Group.—Products (raw and manufactured) of mining (Classes 40 to 46).

6th Group.—Instruments, and processes of the common arts (Classes 47 to 66).

7th Group.—Food (fresh and preserved) in various states of preparation (Classes 67 to 73).

8th Group.—Live products and examples of agricultural establishments (Classes 74 to 82).

9th Group.—Live products and examples of horticultural establishments (Classes 83 to 88).

10th Group.—Objects exhibited with the special purpose of improving the physical and moral condition of the people (Classes 89 to 95).

The objects which are included in these groups are given in detail in the System of Classification (Appendix A) annexed to these Regulations.

In order to avail itself of any suggestions that may be made by the French exhibitors and the Foreign Commissioners, the Imperial Commission reserves to itself the right to resolve, in the successive editions of this document, all doubtful questions to which this first publication may give rise.

ART. 12.—No work of art, or object exhibited in the Exhibition building or in the Park may be drawn, copied, or reproduced in any manner whatever, without the authority of the exhibitor who is the author of it. The Imperial Commission reserves to itself the right to authorise the taking of general views of the Exhibition.

ART. 13.—No work of art or object exhibited may be removed before the close of the Exhibition without the special authority of the Imperial Commission.

ART. 14.—Neither French nor foreign exhibitors will have to pay any rent for the space occupied by them in the Exhibition; but all costs incurred for fittings and decoration in the Exhibition building and in the Park must be borne by them.

ART. 15.—Frenchmen and foreigners, by the act of becoming exhibitors, thereby bind themselves to adhere to these Regulations.

ART. 16.—The Imperial Commission will correspond with the Prefets and other authorities of the French Empire through the President or the General Commissioner.

ART. 17.—All communications relative to the Exhibition are to be addressed to *M. le Conseiller d'État, Commissaire général de l'Exposition Universelle de 1867, à Paris.*

Letters need not be prepaid within the jurisdiction of the French Post Office.

1^{er} Groupe.—Œuvres d'art (Classes 1 à 5).

2^e Groupe.—Matériel et applications des arts libéraux (Classes 6 à 13).

3^e Groupe.—Meubles et autres objets destinés à l'habitation (Classes 14 à 26).

4^e Groupe.—Vêtements (tissus compris) et autres objets portés par la personne (Classes 27 à 39).

5^e Groupe.—Produits (bruts et ouvrés) des industries extractives (Classes 40 à 46).

6^e Groupe.—Instruments et procédés des arts usuels (Classes 47 à 66).

7^e Groupe.—Aliments (frais ou conservés), à divers degrés de préparation (Classes 67 à 73).

8^e Groupe.—Produits vivants et spécimens d'établissements de l'agriculture (Classes 74 à 82).

9^e Groupe.—Produits vivants et spécimens d'établissements de l'horticulture (Classes 83 à 88).

10^e Groupe.—Objets spécialement exposés en vue d'améliorer la condition physique et morale des populations (Classes 89 à 95).

Les objets qui se rapportent à ces groupes sont indiqués en détail dans le Système de classification (Pièce A) annexé au présent Règlement.

La Commission impériale, afin de tenir compte des observations qui lui seraient adressées par les exposants français et les Commissaires étrangers, se réserve d'éclaircir, dans des éditions successives de ce document, les doutes que la première rédaction pourrait soulever.

ART. 12.—Aucune œuvre d'art, aucun produit exposé dans le Palais ou dans le Parc, ne peut être dessiné, copié ni reproduit sous une forme quelconque, sans une autorisation de l'exposant qui en est l'auteur. La Commission impériale se réserve d'autoriser la reproduction des vues d'ensemble.

ART. 13.—Aucune œuvre d'art, aucun produit exposé ne peut être retiré avant la clôture de l'Exposition sans une autorisation spéciale de la Commission impériale.

ART. 14.—Les exposants français ou étrangers n'ont à payer aucun loyer pour la place qu'ils occupent à l'Exposition; mais tous les frais d'installation et de décoration, dans le Palais ou dans le Parc, sont à leur charge.

ART. 15.—Les Français et les étrangers, en acceptant la qualité d'exposant, déclarent, par cela même, adhérer aux dispositions du présent Règlement.

ART. 16.—La Commission impériale correspond avec les Préfets et autres autorités de l'Empire français par l'intermédiaire du Président ou du Commissaire général.

ART. 17.—Toute communication relative à l'Exposition doit être adressée à *M. le Conseiller d'État, Commissaire général de l'Exposition Universelle de 1867, à Paris.*

L'affranchissement n'est pas nécessaire dans la juridiction du service postal français.

SECTION II.

Special Arrangements relative to Works of Art.

ART. 18.—Works by French and foreign artists, executed since the 1st January, 1855, will be received for exhibition.

ART. 19.—The following will not be received:
1. Copies, including those which reproduce a work in a manner different to that of the original;

2. Oil paintings, miniatures, water-colour paintings, pastels, designs, and cartoons for stained glass and frescoes, without frames;

3. Sculpture in unbaked clay.

ART. 20.—The Imperial Commission will decide, with the assistance of a special jury, respecting the admission of works by French artists.

The composition and nomination of this jury, and the formalities with which Frenchmen will have to comply in requesting permission to send a work of art to the Exhibition, will be explained by regulations to be published hereafter; these regulations will make known how works of art are to be transmitted and received.

ART. 21.—The Imperial Commission will make known to the persons concerned, before the 1st January, 1867, its decisions respecting the admission of works of art.

ART. 22.—The number and nature of the rewards that may be given in respect of works of art, as well as the constitution of the international jury who will be called upon to act as judges, will be decided hereafter.

SECTION III.

Special Arrangements respecting the Products of Agriculture and Industry.

CHAPTER I.

ADMISSION AND CLASSIFICATION OF PRODUCTS.

ART. 23.—All the products of agriculture and industry will be admitted into the Exhibition with the exception and limitations mentioned in the following article.

ART. 24.—Detonating, explosive, and other substances of a dangerous nature will not be admitted.

DEUXIÈME SECTION.

Dispositions spéciales aux Œuvres d'Art.

ART. 18.—Sont admissibles à l'Exposition les œuvres des artistes français et étrangers exécutées depuis le 1^{er} janvier 1855.

ART. 19.—Sont exclus :

1^o Les copies, même celles qui reproduisent un ouvrage dans un genre différent de celui de l'original;

2^o Les tableaux à l'huile, miniatures, aqua-relles, pastels, dessins et cartons de vitraux et de fresques, lorsqu'ils ne sont pas encadrés;

3^o Les sculptures en terre non cuite.

ART. 20.—La Commission impériale statue, avec le concours d'un Jury spécial, sur l'admission des œuvres des artistes français.

La composition et la nomination de ce Jury, ainsi que les formalités qu'auront à remplir les Français pour demander l'admission d'une œuvre d'art à l'Exposition, seront fixées par un règlement ultérieur; ce règlement fera connaître le mode d'expédition et de réception des œuvres d'art.

ART. 21.—La Commission impériale notifiera aux intéressés, avant le 1^{er} janvier 1867, les décisions qu'elle aura prises sur les demandes d'admission concernant les œuvres d'art.

ART. 22.—Il sera statué ultérieurement sur le nombre et la nature des récompenses qui pourront être décernées au sujet des œuvres d'art, ainsi que sur la constitution du Jury international qui sera appelé à les juger.

TROISIÈME SECTION.

Dispositions spéciales aux Produits de l'Agriculture et de l'Industrie.

TITRE PREMIER.

ADMISSION ET CLASSEMENT DES PRODUITS.

ART. 23.—Sont admissibles à l'Exposition tous les produits de l'agriculture et de l'industrie, sauf les exception et les réserves mentionnées à l'article suivant.

ART. 24.—Sont exclues les matières detonantes, fulminantes et toute autre matière jugée dangereuse.

Spirits and alcohols, oils and essences, corrosive substances, and generally substances which may affect injuriously other products exhibited, or incommode the public, will only be received in strong vessels, specially adapted for the purpose, and of small dimensions.

Percussion caps, fireworks, lucifer matches, and other similar articles can only be received when made in imitation and deprived of all inflammable ingredients.

ART. 25.—Exhibitors of products of an unwholesome and disagreeable nature will be bound to conform at all times to such measures of safety as may be prescribed to them.

The Imperial Commission reserves to itself the right to cause the removal of any products, whether French or foreign, which by their nature or their bulk might appear injurious, unsuitable, or incompatible with the objects of the Exhibition.

ART. 26.—Before the 15th August, 1865, the Imperial Commission will notify to the Foreign Commission the amount of space allotted to each of them for the display of the productions of their respective exhibitors.

Before the 25th August, 1865, the Imperial Commission will publish, in a tabulated form, the amounts of space allotted in the French portion of the Exhibition building to each of the first 73 classes enumerated in Article 11.

ART. 27.—After the publication of this document, French exhibitors carrying on the trades comprised in the same class are requested to come to an understanding among themselves relative to a common plan of arrangement of the space which will have been allotted to their class. If they should agree upon the selection of the exhibitors which this allotment can accommodate, and upon the amount of space which shall be assigned to each, they will nominate one or more representatives who will place themselves into communication with the Imperial Commission, submit their plan and list of exhibitors for its approval, and generally act as the representatives of the common interests of these exhibitors.

ART. 28.—In default of such spontaneous action provided for in the preceding article, the municipal authorities of centres of manufactures, the chambers of commerce, the consultative chambers of arts and manufacture, artistic and industrial societies, agricultural societies and meetings, are requested to urge the producers in their districts to act in concert.

ART. 29.—The department committees (Art. 3) will receive from the Imperial Commission and will communicate to the consultative chambers of agriculture and to the agricultural societies and meetings of the department, the plans adopted for the representation of the agriculture of the various districts of France, in order that they may co-operate in carrying out these plans. They will especially request

Ne sont reçus que dans des vases solides, appropriés et de dimensions restreintes, les esprits ou alcools, les huiles et les essences, les matières corrosives et généralement les corps qui peuvent altérer les autres produits exposés ou incommode le public.

Les capsules, les pièces d'artifice, les allumettes chimiques et autres objets analogues, ne peuvent être reçus qu'à l'état d'imitation et sans aucune addition de matière inflammable.

ART. 25.—Les exposants de produits incommodes ou insalubres doivent se conformer en tout temps aux mesures de sûreté que leur sont prescrites.

La Commission impériale se réserve le droit de faire retirer les produits de toute provenance qui, par leur nature ou leur masse, lui paraîtraient nuisibles ou incompatibles avec le but et les convenances de l'Exposition.

ART. 26.—Avant le 15 août 1865, la Commission impériale notifiera aux Commissions étrangères l'espace accordé à chacune d'elles pour exposer les produits de ses nationaux.

Avant le 25 août 1865, la Commission impériale publiera un tableau des espaces attribués, dans l'emplacement de la section française, à chacune des 73 premières classes indiquées à l'article 11.

ART. 27.—Après cette publication, les producteurs français exerçant les industries comprises dans une même classe sont invités à s'entendre entre eux pour faire un projet d'installation dans l'emplacement qui aura été affecté à leur classe. S'ils se sont mis d'accord sur le choix des exposants que cet emplacement permet d'admettre, et sur l'espace qui devra être alloué à chacun d'eux, ils désigneront un ou plusieurs délégués pour prendre les informations nécessaires auprès de la Commission impériale, lui soumettre leur plan et leur liste d'exposants, et, en général, représenter auprès d'elle les intérêts communs de ces derniers.

ART. 28.—A défaut des réunions spontanées prévues à l'article précédent, les autorités municipales des centres manufacturiers, les chambres de commerce, les chambres consultatives des arts et manufactures, les sociétés artistiques ou industrielles, les sociétés et comices agricoles, sont invités à provoquer le concert des producteurs de leur circonscription.

ART. 29.—Les comités départementaux (art. 3) recevront de la Commission impériale et communiqueront aux chambres consultatives d'agriculture, aux sociétés et aux comices agricoles du département, les plans adoptés pour représenter l'agriculture des diverses régions de la France afin qu'ils concourent à la réalisation de ces plans. Ils inviteront surtout ces sociétés et ces comices à préparer

these societies and meetings to prepare collective exhibitions of types of animals and plants, and models of farm buildings and agricultural works.

The local committees of a large agricultural district will as far as possible act in concert, so as to display, without useless repetitions, the characteristic features of the agriculture of the district.

ART. 30.—The applications for space having reference to the arrangements described in Articles 27, 28, 29, will be made by the representatives of the exhibitors who have been acting in concert, or by those of the societies and bodies who have taken the initiative in the matter. For this purpose, the representatives will cause each exhibitor to fill up and sign, in duplicate, an application for space. These applications are to be addressed to the General Commissioner at Paris (Art. 17).

ART. 31.—Every plan of arrangement prepared either by the exhibitors of the same class acting spontaneously together, or at the instigation of local committees, municipal authorities, chambers of commerce, consultative chambers, agricultural societies or bodies, artistic or industrial societies, will be approved by the Imperial Commission, provided that no objections are raised, and that the general rules and requirements of the Exhibition have been observed.

ART. 32.—The displays thus originating from a common agreement will consist of separate and distinct exhibitions, unless it suit all those joining in the plan to make a collective display, in which, without naming the exhibitors, all the products of a locality or district will be exhibited together.

ART. 33.—In the event of exhibitions carried out in accordance with Articles 27, 28, and 29, producers having any reclamations to make are to address them direct to the General Commissioner, who will submit them to the Imperial Commission.

ART. 34.—In those cases in which the combination suggested in Articles 27, 28, and 29 have not been carried out, each of the exhibitors will fill up and sign two forms of application for space (Art. 30). Both these applications are to be forwarded to the General Commissioner at Paris (Art. 17).

ART. 35.—Applications for space, objections, and all documents relating thereto are to be transmitted to Paris before the 31st October, 1865.

After that date, no application or objection can be entertained except by a special resolution of the Imperial Commission.

ART. 36.—Exhibitors of apparatus requiring the use of water, gas, or steam, are to state, when sending in their application for space, what amount of water, gas, or steam, will be necessary. Those who wish to exhibit machines in motion are to state at what speed each of

des expositions collectives des types d'animaux et de plantes, d'établissements ruraux et d'usines agricoles.

Les comités départementaux d'une grande région agricole se concerteront, autant que possible, pour représenter, sans double emploi, les traits caractéristiques de l'agriculture de cette région.

ART. 30.—Les demandes d'admission se rapportant aux installations mentionnées aux articles 27, 28, 29, sont faites par les délégués des intéressés qui se sont entendus, ou par ceux des corps ou sociétés qui en ont pris l'initiative. A cet effet, les délégués feront remplir et signer par chaque exposant, en double expédition, la demande d'admission. Ils adresseront ces demandes au Commissaire général, à Paris (art. 17).

ART. 31.—Toute installation préparée soit par une entente spontanée des producteurs d'une même classe, soit sous l'influence des comités départementaux, des autorités municipales, des chambres de commerce, des chambres consultatives, des sociétés ou comices agricoles, des sociétés artistiques ou industrielles, sera acceptée par la Commission impériale, si aucune réclamation ne se produit, et si, d'ailleurs, les convenances générales de l'Exposition sont observées.

ART. 32.—Les expositions ainsi conçues en commun se composent d'installations individuelles et distinctes, à moins qu'il ne convienne à tous les intéressés de faire une exposition réunissante, sans désignation de personnes, les produits d'une localité ou d'une région.

ART. 33.—Dans le cas des expositions faites conformément aux articles 27, 28 et 29, les producteurs qui auraient à présenter une réclamation l'adresseront directement au Commissaire général, qui la soumettra à la Commission impériale.

ART. 34.—Dans le cas où le concert prévu par les articles 27, 28 et 29 n'aurait pas eu lieu, les producteurs rempliront et signeront individuellement deux expéditions de la demande d'admission (art. 30); ces deux expéditions seront adressées au Commissaire général, à Paris (art. 17).

ART. 35.—Les demandes d'admission, les réclamations et toutes les pièces qui s'y rapportent, doivent être adressées à Paris, avant le 31 octobre 1865.

Passé cette date, toute demande ou réclamation ne pourra être accueillie que par décision spéciale de la Commission impériale.

ART. 36.—Les constructeurs d'appareils exigeant l'emploi de l'eau, du gaz ou de la vapeur, doivent déclarer, en faisant leur demande d'admission, la quantité d'eau, de gaz ou de vapeur, qui leur est nécessaire. Ceux qui veulent mettre des machines en mouvement

these machines is to be driven and the motive power which it will require.

ART. 37.—Committees will be appointed by the Imperial Commission for the nine groups of agriculture and industry (Art. 11), to advise respecting each application for space, and the objections mentioned in Article 33.

The Imperial Commission alone can decide the admission of exhibitors.


ART. 38.—Each French exhibitor will receive before the 31st December, 1865, an *exhibitor's bulletin* (or ticket), showing his rotation number, the dimensions of the space granted to him, and the address which is to be affixed to the packages he may send.

CHAPTER II.

DESPATCH, RECEPTION, AND PLACING OF GOODS IN THE EXHIBITION BUILDING AND IN THE PARK.

ART. 39.—The cost of packing and carriage of the goods sent to the Exhibition and of the goods which have been exhibited there is to be borne by the exhibitors, both to and fro.

ART. 40.—French packages containing goods intended for the Exhibition are to be marked with the letters E.U. surrounded by a circle

 ; they are to bear in addition the

rotation number of the exhibitor and the direction specified in the exhibitor's bulletin (Art. 38).

The way-bill which accompanies the package is also to contain the name of the exhibitor, the rotation number, and the direction.

The sender will affix on two sides of the package the labels which the Imperial Commission will take care to transmit to him for this purpose in duplicate.

ART. 41.—The Imperial Commission will not interfere in any way between the contractors for the carriage of packages and the exhibitors in respect of the despatch and the reception of the goods.

The exhibitors must therefore, either personally or by their agents, see to the transmission and reception of the packages, and verify their contents.

If neither the exhibitor nor his agent be present to receive the packages on their arrival at the Exhibition, the carrier is bound to remove them immediately.

ART. 42.—Packages from foreign countries must be marked in such a way as to show distinctly from whence they come. The Imperial Commission will make arrangements with the Foreign Commissioners in order that these packages may be transmitted in accordance

indiqueront quelle sera la vitesse propre de chacune de ces machines et la force motrice dont elle aura besoin.

ART. 37.—Des Comités d'admission, institués par la Commission impériale, pour les neuf groupes de l'agriculture et de l'industrie (art. 11), donnent leur avis sur les demandes individuelles d'admission et sur les réclamations mentionnées à l'article 33.

La Commission impériale prononce seule l'admission des exposants.


ART. 38.—Chaque exposant français recevra, avant le 31 décembre 1865, un *bulletin d'exposant* portant son numéro d'ordre, les dimensions de l'espace mis à sa disposition et l'adresse qui devra être placée sur les colis à expédier.

TITRE II.

ENVOI, RÉCEPTION ET INSTALLATION DES PRODUITS AU PALAIS ET DANS LE PARC.

ART. 39.—L'emballage et le transport des produits envoyés à l'Exposition et des produits qui y ont figuré, sont à la charge des exposants, tant pour l'aller que pour le retour.

ART. 40.—Les colis d'origine française renfermant des produits destinés à l'Exposition, doivent porter, comme marques, les lettres E.U.

entourées d'un cercle  ; ils portent, en

outre, le numéro d'ordre de l'exposant et l'adresse à l'Exposition, telle qu'elle est indiquée sur le bulletin d'exposant (art. 38).

La lettre de voiture accompagnant le colis répètera avec le nom de l'exposant ce numéro d'ordre et cette adresse.

L'expéditeur devra fixer sur deux des faces du colis l'étiquette qui lui aura été envoyée en double, à cet effet, par les soins de la Commission impériale.

ART. 41.—Pour ce qui concerne l'expédition et la réception des produits, la Commission impériale s'abstient de toute immixtion entre les entrepreneurs de transport et les exposants.

Les exposants doivent en conséquence pourvoir, soit par eux-mêmes, soit par leurs agents, à l'expédition et à la réception des colis et à la reconnaissance de leur contenu.

Si le destinataire ou son agent n'est pas présent pour recevoir les colis à leur arrivée dans l'enceinte de l'Exposition, l'entrepreneur de transport est tenu de les remporter immédiatement.

ART. 42.—Les colis d'origine étrangère devront tous porter l'indication bien visible de leur provenance. La Commission impériale se concertera avec les Commissaires étrangers pour que l'expédition de ces colis se fasse conformément aux règles indiquées à l'article 40

with the regulations specified in Article 40 for French packages; on this point, however, the Foreign Commissioners will adopt the course which they may consider most advisable.

ART. 43.—French and foreign goods will be received into the Exhibition from the 15th January, 1867, up to the 10th March following inclusive.

These dates may, by special arrangement, be anticipated for objects difficult to place, or deferred for objects of great value.

ART. 44.—The Exhibition is constituted a bonded warehouse.

Foreign goods intended for the Exhibition will be admitted into France, under bond, up to the 5th March, 1867, by the following ports and frontier towns:

Dunkirk, — Lille, — Valenciennes, — Feignies, — Jeumont, — Vireux, — Givet, — Longwy, — Thionville, — Forbach, — Wissembourg, — Strasbourg, — Saint Louis, — Pontarlier, — Bellegarde, — Saint Michel, — Nice, — Marseilles, — Cette, — Le Perthus, — Hendaye,* — Bayonne, — Bordeaux, — Nantes, — Saint Nazaire, — Granville, — Havre, — Dieppe, — Rouen, — Boulogne, — Calais.

ART. 45.—The Imperial Commission will issue special instructions relative to the period when the materials for the buildings, as objects for exhibition, the separate parts of machines and apparatus, heavy and cumbersome articles, and those which require masonry or special foundations, are to be brought into the precincts of the Exhibition.

Such works are to be performed by the exhibitors and at their own cost, in accordance with the plans submitted by them for the approval of the Imperial Commission.

ART. 46.—The Imperial Commission will supply gratuitously the water, gas, steam, and motive power for the machines admitted under the Regulation contained in Article 36. This motive power will, except in special cases, be transmitted by a horizontal main shaft, the diameter and the number of revolutions per minute of which will be made known by the Imperial Commission before the 31st December, 1865.

The exhibitors will have to furnish driving pulleys on the main shaft, connecting pulleys, and intermediate shafting for the purpose of regulating the proper speed of the apparatus, as well as the belts necessary for each of these motions.

Steam-engines which require to be supplied with steam from their own boilers cannot be shown in the Exhibition building, and special directions will therefore be issued respecting them.

ART. 47.—All other expenses, such as the employment of workmen in the building, the

pour les colis d'origine française; toutefois, sur ce point, les Commissaires étrangers adopteront le régime qu'ils jugeront le plus convenable.

ART. 43.—Les produits tant français qu'étrangers seront admis dans l'enceinte de l'Exposition, à partir du 15 janvier 1867, jusques et y compris le 10 mars suivant.

Ces dates pourront être, par des dispositions spéciales, devancées pour les objets dont l'installation est difficile, ou différées pour les objets de grande valeur.

ART. 44.—L'enceinte de l'Exposition est constituée en entrepôt réel de douane.

Les produits étrangers destinés à l'Exposition seront admis, à ce titre, jusqu'au 5 mars 1867, par les ports et villes frontières désignés ci-après:

Dunkerque, — Lille, — Valenciennes, — Feignies, — Jeumont, — Vireux, — Givet, — Longwy, — Thionville, — Forbach, — Wissembourg, — Strasbourg, — Saint Louis, — Pontarlier, — Bellegarde, — Saint Michel, — Nice, — Marseille, — Cette, — Le Perthus, — Hendaye,* — Bayonne, — Bordeaux, — Nantes, — Saint-Nazaire, — Granville, — Le Havre, — Dieppe, — Rouen, — Boulogne, — Calais.

ART. 45.—La Commission impériale déterminera par des instructions spéciales, l'époque à laquelle les matériaux destinés aux constructions formant objet d'exposition, les machines et appareils démontés, les objets lourds ou encombrants, ceux qui exigent des massifs ou des fondations particulières devront être amenés dans l'enceinte de l'Exposition.

Ces travaux de construction et d'installation seront exécutés par les exposants et à leurs frais, conformément aux plans présentés par eux à l'approbation de la Commission impériale.

ART. 46.—La Commission impériale fournit gratuitement l'eau, le gaz, la vapeur et la force motrice pour les machines qui ont donné lieu à la déclaration mentionnée à l'art. 36. Cette force est, en général, transmise par un arbre de couche dont la Commission impériale fera connaître, avant le 31 décembre 1865, le diamètre et le nombre de tours par minute.

Les exposants ont à fournir la poulie sur l'arbre de couche, les poulies conductrices, l'arbre de transmission intermédiaire destiné à régler la vitesse propre de l'appareil ainsi que les courroies nécessaires à chacune de ces transmissions.

Les machines à vapeur qui devraient être alimentées par leurs propres chaudières, ne pouvant être exposées dans le Palais, seront l'objet d'instructions spéciales.

ART. 47.—Tous les autres frais tels que: manutention dans l'exposition; réception et

* A custom-house, to be established on the railway now being made between Barcelona and Perpignan, will be hereafter specified.

* Un bureau de douane, à établir sur le chemin de fer, en construction de Barcelone à Perpignan, sera ultérieurement désigné.

reception and opening of packages, the removal and charge of packing-cases, the construction of counters, stages, glass and other cases, &c., the placing of goods in the Exhibition building and in the Park, the decoration of the stalls, and the return of the goods, are to be borne by the exhibitors, French as well as foreign.

ART. 48.—The arrangement and decoration of the stalls in the French section of the Exhibition building and of the Park can only be executed in conformity with the general plan, and under the superintendence of the officers of the Imperial Commission.

The Imperial Commission will point out to exhibitors who may apply contractors for the execution of their work and for the removal and custody of their cases; but they are at liberty to employ any contractors or workmen they may think fit.

ART. 49.—The various stalls and fittings may be erected in the Exhibition as fast as the buildings are completed; they must be commenced at latest on the 1st December, 1866, and must be ready for the reception of goods before the 15th January, 1867.

ART. 50.—The passages reserved outside the exhibiting space being strictly calculated for the purpose of circulation, packages and empty cases are not allowed to remain therein.

Cases must, therefore, be unpacked as fast as they are received. The Imperial Commission will direct its own officers to unpack for the exhibitors, and at their risk and peril, the cases left in the passages intended for circulation.

From the 11th to the 28th March, 1867, the goods already unpacked and placed in the stalls, are to be arranged and displayed for exhibition. The 29th and 30th March are reserved for the purpose of a general cleaning. A review of the whole Exhibition will take place on the 31st March.

The Imperial Commission will take all measures necessary to have the Exhibition complete in all its parts by the 28th March. It will, therefore, dispose of all those portions of space which, on the 14th January, 1867, are not occupied by stalls ready for the reception of goods, and of all those stalls which, on the 10th March, do not contain goods enough to fill them.

ART. 51.—Immediately after they have been unpacked, the cases that have been used for the carriage of the goods either in France or from abroad are to be removed by the exhibitors or their agents. If they should fail to do this without delay, the Imperial Commission will remove the cases and packing, and will not be in any way responsible for their preservation.

ART. 52.—Special instructions will be published hereafter for the organisation and arrangement of the products and objects for exhibition which are to be placed in the Park.

ouverture des colis; enlèvement et conservation des caisses et emballages; construction des tables, estrades, vitrines ou casiers; installation des produits dans le Palais et dans le Parc; décoration des emplacements; réexpédition des produits, sont à la charge des exposants, tant français qu'étrangers.

ART. 48.—Les arrangements et l'ornementation des installations de la section française, dans le Palais et dans le Parc, ne peuvent être exécutés que conformément au plan général et sous la surveillance des agents de la Commission impériale.

La Commission impériale indiquera aux exposants qui en feront la demande, des entrepreneurs pour l'exécution de leurs travaux et pour la manutention de leurs colis; mais les exposants resteront libres d'employer des entrepreneurs ou des ouvriers de leur choix.

ART. 49.—Les installations diverses pourront être mises en place dans le Palais au fur et à mesure de l'achèvement des constructions; elles devront être commencées au plus tard le 1^{er} décembre, 1866, et être prêtes à recevoir les produits avant le 15 janvier 1867.

ART. 50.—Les espaces réservés en dehors des installations de produits étant strictement calculés pour les besoins de la circulation, il est interdit d'y laisser stationner les colis ou les caisses vides.

En conséquence, les colis devront être déballés au fur et à mesure de leur réception. La Commission impériale procédera d'office, pour le compte des exposants et à leurs risques et périls, au déballage des colis abandonnés par eux sur les voies de circulation.

Du 11 au 28 mars 1867, les produits déjà déballés et placés dans les installations devront y être arrangés et étalés pour l'Exposition. Le 29 et le 30 mars sont réservés pour un nettoyage général. La révision de toute l'Exposition aura lieu le 31 mars.

La Commission impériale prendra toutes les mesures nécessaires pour que l'Exposition soit complète au 28 mars, dans toutes ses parties. En conséquence, elle disposera de tout emplacement qui, au 14 janvier 1867, ne serait pas occupé par une installation toute prête, ou de toute installation qui, au 10 mars, n'aurait pas reçu des produits en quantité suffisante.

ART. 51.—Aussitôt après le déballage, les caisses ayant servi au transport des produits de toute provenance doivent être emportées par les exposants ou leurs agents. Faute par eux d'y pourvoir immédiatement, la Commission impériale fait enlever les caisses et emballages, sans prendre aucune responsabilité pour leur conservation.

ART. 52.—Des instructions spéciales seront publiées ultérieurement pour l'organisation et l'installation des produits et des objets d'exposition qui doivent prendre place dans le Parc.

CHAPTER III.

GENERAL ADMINISTRATION AND POLICE
ARRANGEMENTS.

ART. 53.—The name of the producer will be affixed to the goods exhibited. The name of the retailer who usually acts as his agent may be added with the producer's consent.

The Imperial Commission will, when required, make arrangements for the exhibition of goods under the name of the retailer, when they are not sent for exhibition by the producer.

ART. 54.—Exhibitors are requested to insert after their own names or the names of their firms, the names of those persons who have contributed in a special manner to the merit of the products exhibited, either as inventors or designers, or by some process of manufacture, or by some remarkable skill in the workmanship.

ART. 55.—The cash price of the objects exhibited and the place where they may be purchased may be stated. This information must be given upon all objects included in Class 91. In all the classes, the prices, if stated, must be adhered to by the exhibitor as respects the buyer, under penalty of exclusion from competition.

Objects sold may not be removed before the close of the Exhibition without the special permission of the Imperial Commission.

ART. 56.—The Imperial Commission will take every means to preserve from damage the articles exhibited, but it will not hold itself in any way responsible for any loss by fire, or for any accident, damage, or injury, great or small, which may happen to them, from whatever cause it may arise. Exhibitors must take upon themselves the expense of insurance if they should see fit to avail themselves of that precaution.

The goods exhibited will be watched by the necessary staff, but the Commission will not be responsible for any thefts or embezzlements which may be committed.

ART. 57.—A special notice posted in the Exhibition building and in the Park will make known the staff appointed to organise the interior of the building. It will also contain the names of the officers whose duty it will be to give assistance to the exhibitors, and to watch over the security of the Exhibition.

ART. 58.—A ticket will be delivered to each exhibitor, which will give him free admission to the Exhibition. This ticket will not be transferable. If it should be proved that the exhibitor has lent or given his ticket to some other person, it will be forfeited without prejudice to further proceedings at law.

To secure the carrying out of this regulation, the ticket of admission must be signed by the holder, who will have to enter the Exhibition by certain prescribed doors only, and he may

TITRE III.

ADMINISTRATION ET POLICE.

ART. 53.—Les produits sont exposés sous le nom du producteur. Ils peuvent, avec l'agrément de ce dernier, porter, en outre, le nom du négociant qui en est le dépositaire habituel.

La Commission impériale se concerte au besoin avec des négociants pour faire figurer sous leur nom, à l'Exposition, des produits qui ne seraient pas présentés par les producteurs.

ART. 54.—Les exposants sont invités à inscrire à la suite de leur nom ou de leur raison sociale, les noms des personnes qui ont contribué d'une manière spéciale au mérite des produits exposés, soit à titre d'inventeur, soit par le dessin des modèles, soit par les procédés d'exécution, soit par l'habileté exceptionnelle du travail manuel.

ART. 55.—Le prix de vente au comptant et le lieu de vente peuvent être indiqués sur les objets exposés. Cette indication est exigée pour tous les objets compris dans la classe 91. Dans toutes les classes, les prix, s'ils sont indiqués, sont obligatoires pour l'exposant, vis-à-vis de l'acheteur, sous peine d'exclusion du concours.

Les objets vendus ne peuvent être enlevés avant la fin de l'Exposition, à moins d'une autorisation spéciale de la Commission impériale.

ART. 56.—La Commission impériale prendra les mesures nécessaires pour garantir de toute avarie les produits exposés; mais elle ne sera, en aucune façon, responsable des incendies, accidents, dégâts ou dommages dont ils auraient à souffrir, quelle qu'en soit la cause ou l'importance. Elle laisse aux exposants le soin d'assurer leurs produits, directement et à leurs frais, s'ils jugent à propos de recourir à cette garantie.

Elle fera surveiller, par le personnel nécessaire, les produits exposés, mais elle ne sera pas responsable des vols et détournements qui pourraient être commis.

ART. 57.—Un Règlement spécial, affiché dans le Palais et dans le Parc, déterminera l'ordre du service intérieur. Il fera connaître les agents chargés de venir en aide aux exposants et de veiller à la sécurité de l'Exposition.

ART. 58.—Une carte d'entrée gratuite à l'Exposition est délivrée à chaque exposant. Cette carte est personnelle. Elle est retirée, s'il est constaté qu'elle a été prêtée ou cédée à une autre personne, le tout sans préjudice des poursuites de droit.

Pour assurer cette partie du service, la carte d'entrée est signée par le titulaire. Celui-ci est tenu d'entrer par des portes déterminées, et il peut être requis d'établir son identité en

be required to establish his identity by signing his name in a book to be kept for that purpose.

ART. 59.—Exhibitors will be allowed to have their goods taken care of by the agents they may select, but they must be approved by the Imperial Commission.

Personal tickets of free admission will be given to these agents under the conditions laid down in the foregoing article.

An exhibitor's agent can only receive one ticket of admission, whatever number of exhibitors he may represent.

ART. 60.—Exhibitors or their agents must not solicit visitors to make purchases; they will confine themselves to answering enquiries, to handing the address cards, prospectuses, and lists of prices which they may be asked for.

ART. 61.—The Imperial Commission will fix hereafter the prices of admission to be paid by visitors in order to be admitted into the Exhibition.

ART. 62.—An International Jury for making the awards will be formed, divided into nine groups, corresponding with the nine groups of the products of agriculture and industry enumerated in the system of classification (Art. 11, and Appendix A).

The number, the nature, and the various grades of the awards, as well as the constitution and functions of the jury, whose duty it will be to apportion them, will be published hereafter.

ART. 63.—The objects will be studied and experiments conducted under the direction of the members of the jury, and of a scientific, agricultural, and industrial commission, appointed by the Imperial Commission. A report of the facts of general interest brought under notice by their labours will be published.

ART. 64.—Conferences may be held and demonstrations given in the various parts of the Exhibition. Courses of lectures and readings may, in addition, be delivered in a room built for that purpose. These various means of imparting information can only be used by those who have personally obtained the authority of the Imperial Commission.

CHAPTER IV.

CLOSING OF THE EXHIBITION AND REMOVAL OF THE GOODS.

ART. 65.—Immediately after the close of the Exhibition, the exhibitors must begin to pack and remove their goods and fittings.

This operation must be completed before the 30th November, 1867.

apposant sa signature sur une feuille de contrôle.

ART. 59.—Les exposants ont la faculté de faire garder leurs produits par des agents de leur choix, qui devront être agréés par la Commission impériale.

Des cartes d'entrée gratuites et personnelles sont délivrées à ces agents, sous les conditions énoncées dans l'article précédent.

Un agent d'exposants ne peut avoir plus d'une carte d'entrée, quel que soit le nombre des exposants qu'il représente.

ART. 60.—Les exposants ou leurs agents s'abstiendront de provoquer les visiteurs à faire des achats; ils se borneront à répondre aux questions, à délivrer les adresses, prospectus et prix courants, qui leur seront demandés.

ART. 61.—La Commission impériale fixera ultérieurement le tarif des prix d'entrée que les visiteurs auront à payer pour être admis dans l'enceinte de l'Exposition.

ART. 62.—Il sera institué un Jury international des récompenses, partagé en neuf groupes correspondant aux neuf groupes des produits de l'agriculture et de l'industrie dénommés dans le Système de classification (art. 11 et Pièce A).

Un Règlement ultérieur déterminera le nombre, la nature et les divers degrés de récompenses, ainsi que la constitution et les attributions du Jury chargé de les répartir.

ART. 63.—Il sera procédé à des études et à des expériences, sous la direction des membres du Jury des récompenses et d'une commission scientifique, agricole et industrielle, nommée par la Commission impériale. Des publications feront connaître les résultats d'intérêt général signalés par ces travaux.

ART. 64.—Des conférences et des démonstrations pourront être faites dans les diverses parties de l'Exposition. Des cours et des lectures pourront être, en outre, organisés dans une salle construite à cet effet. Ces divers enseignements ne pourront être donnés qu'en vertu d'autorisations personnelles délivrées par la Commission impériale.

TITRE IV.

CLÔTURE DE L'EXPOSITION ET ENLÈVEMENT DES PRODUITS.

ART. 65.—Aussitôt après la clôture de l'Exposition, les exposants doivent procéder à l'emballage et à l'enlèvement de leurs produits et de leurs installations.

Cette opération devra être terminée avant le 30 novembre 1867.

After that date, the goods, cases, and fittings which may not have been taken away by the exhibitors or their agents, will be removed and deposited in a public warehouse at the cost and risk of the exhibitors. The objects which, by the 30th June, 1868, may not have been removed from that warehouse, will be publicly sold, and the net proceeds of the sale will be applied to some work of charity.

Done and discussed by the Imperial Commission, the 7th July, 1865.

(Signed) ROUHER,
Minister of State, Vice President.

Considered and annexed to the decree of the 12th July, 1865.

(Signed) ROUHER,
Minister of State, charged ad interim with the Ministry of Agriculture, Commerce, and Public Works.

(Signed) DE CHANCOURTOIS,
Secretary of the Imperial Commission.

A true copy :

(Signed) F. LE PLAY,
Councillor of State, General Commissioner.

Passé ce terme, les produits, les colis et les installations qui n'auraient pas été retirés par les exposants ou leurs agents, seront enlevés d'office et consignés dans un magasin public, aux frais et risques des exposants. Les objets qui, au 30 juin 1868, n'auraient pas été retirés de ce magasin, seront vendus publiquement ; le produit net de la vente sera appliqué à une œuvre de bienfaisance.

Fait et délibéré par la Commission impériale, le 7 juillet 1865.

Le Ministre d'État, Vice-Président,
Signé : ROUHER.

Vu et annexé au décret du 12 juillet 1865.

Le Ministre d'État, chargé par interim du Ministère de l'Agriculture, du Commerce et des Travaux publics.

Signé : ROUHER.

Le Secrétaire de la Commission impériale,
Signé : DE CHANCOURTOIS.

Pour ampliation :

Le Conseiller d'État, Commissaire général,
Signé : F. LE PLAY.

SYSTEM OF CLASSIFICATION

ADOPTED BY THE IMPERIAL COMMISSION.

GROUP I.

Works of Art.

CLASS 1—PAINTINGS IN OIL.

(Exhibition Building, Gallery I.)

Paintings on canvas, panels, and on other grounds.

CLASS 2—OTHER PAINTINGS AND DRAWINGS

(Exhibition Building, Gallery I.)

Miniatures, water colour paintings; pastels and drawings of all kinds; paintings on enamel, earthenware and china; cartoons for stained glass and frescoes.

CLASS 3—SCULPTURE AND DIE-SINKING.

(Exhibition Building, Gallery I.)

Sculpture in high-relief. Bas-reliefs. Repoussé work and chasing.

Medals, cameos, engraved stones. Niello work.

CLASS 4—ARCHITECTURAL DESIGNS AND MODELS.

(Exhibition Building, Gallery I.)

Studies and details. Elevations and plans of buildings. Restorations based upon existing ruins or documents.

CLASS 5—ENGRAVING AND LITHOGRAPHY.

(Exhibition Building, Gallery I.)

Mezzo-tints. Coloured engravings.

Lithographs executed with pencil and with brush. Chromolithographs.

GROUP II.

Apparatus and Applications of the Liberal Arts.

CLASS 6—PRINTING AND BOOKS.

(Exhibition Building, Gallery II.)

Specimens of typography; autographic proofs; lithographic proofs, black or coloured; proofs of engravings.

New books, and new editions of books already known; collections of works forming special libraries; periodical publications. Drawings, atlases, and albums of a technical or instructive kind.

CLASS 7—PAPER, STATIONERY; BINDING; PAINTING AND DRAWING MATERIALS.

(Exhibition Building, Gallery II.)

Paper; card and paste board; ink; chalks, pencils, pastels; writing materials; articles for the writing table; inkstands, letter weights, &c. Copying presses.

SYSTEME DE CLASSIFICATION

ADOPTÉ PAR LA COMMISSION.

GROUPE I.

Œuvres d'Art.

CLASSE 1—PEINTURES À L'HUILE.

(Palais, Galerie I.)

Peintures sur toiles, sur panneaux, sur enduits divers.

CLASSE 2—PEINTURES DIVERSES ET DESSINS.

(Palais, Galerie I.)

Miniatures, aquarelles; pastels et dessins de tous genres; peintures sur émail, sur faïence et sur porcelaine; cartons de vitraux et de fresques.

CLASSE 3—SCULPTURES ET GRAVURES SUR MÉDAILLES.

(Palais, Galerie I.)

Sculptures en ronde-bosse. Bas-reliefs. Sculptures repoussées et ciselées.

Médailles, camées, pierres gravées. Nielles.

CLASSE 4—DESSINS ET MODÈLES D'ARCHITECTURE.

(Palais, Galerie I.)

Études et fragments. Représentations et projets d'édifices. Restorations d'après des ruines ou des documents.

CLASSE 5—GRAVURES ET LITHOGRAPHIES.

(Palais, Galerie I.)

Gravures en noir. Gravures polychromes.

Lithographies en noir, au crayon et au pinceau. Chromolithographies.

GROUPE II.

Matériel et Applications des Arts Libéraux.

CLASSE 6—PRODUITS D'IMPRIMERIE ET DE LIBRAIRIE.

(Palais, Galerie II.)

Spécimens de typographie; épreuves autographiques; épreuves de lithographies, en noir ou en couleur; épreuves de gravures.

Livres nouveaux et éditions nouvelles de livres déjà connus; collections d'ouvrages formant des bibliothèques spéciales; publications, périodiques. Dessins, atlas et albums publiés dans un but technique ou pédagogique.

CLASSE 7—OBJETS DE PAPETERIE; RE-LIURES, MATÉRIEL DES ARTS DE LA PEINTURE ET DU DESSIN.

(Palais, Galerie II.)

Papiers; cartes et cartons; encres; craies, crayons, pastels; fournitures de bureau; articles de bureau; encriers, pèse-lettres, etc. Presses à copier.

Articles made of paper; lamp-shades, lanterns, flower-pot covers, &c.

Registers, copy-books, albums and note-books. Bindings, loose covers for books, cases.

Various products used in water-colour painting and tinting; colours in cakes, pastels, bladders, tubes, and shells. Instruments and apparatus for the use of painters, designers, engravers, and modellers.

CLASS 8—APPLICATIONS OF DRAWING AND MODELLING TO THE COMMON ARTS.

(Exhibition Building, Gallery II.)

Designs for industrial purposes, designs made, reproduced, or reduced by some mechanical process. Decorative painting, lithographs or engravings for industrial purposes. Models and small articulated wooden figures, mouldings of figures, ornaments, &c.

Carvings. Cameos, seals and various engraved articles. Objects modelled for industrial purposes, produced by mechanical means; reductions, photo-sculpture, &c. Mouldings.

CLASS 9—PHOTOGRAPHIC PROOFS AND APPARATUS.

(Exhibition Building, Gallery II.)

Photographs on paper, glass, wood, stuffs, and enamel. Heliographic engravings. Proofs of photographs on stone. Photographic stereotypes. Stereoscopic proofs and stereoscopes. Enlarged photographs.

Instruments, apparatus and chemicals used in photography. Materials used in photographic studios.

CLASS 10—MUSICAL INSTRUMENTS.

(Exhibition Building, Gallery II.)

Non-metallic wind instruments; with common mouthpiece, with reeds with or without air reservoirs. Metallic wind instruments, simple, with lengthening pieces, with slides, with pistons, with keys, with reeds. Wind instruments with keyboards, organs, accordions, &c. Stringed instruments played with the fingers or the bow, without keyboards. Stringed instruments with keyboards, pianos, &c. Instruments played by percussion or friction. Automaton instruments, barrel organs, bird organs, &c. Separate parts of musical instruments, and articles used in orchestras.

CLASS 11—MEDICAL AND SURGICAL INSTRUMENTS AND APPARATUS.

(Exhibition Building, Gallery II.)

Instruments and apparatus for dressing wounds and for simple surgery. Instruments for medical research. Surgical instruments and apparatus.

Collections and cases of instruments and drugs specially intended for army and navy surgeons, for veterinary surgeons, for dentists, for oculists, &c. Apparatus for the treatment of suspended animation, drowning persons, &c. Electro-therapeutic apparatus. Local and general anæsthetic apparatus. Apparatus for prosthesis (plastic and mechanical). Orthopædic apparatus, trusses, &c. Various apparatus for sick, infirm, and insane persons. Accessory objects for medical, surgical, and pharmaceutical purposes in hospitals and infirmaries.

Apparatus for the study of anatomy. Apparatus for the study of forensic medicine.

Special apparatus for veterinary purposes.

Baths, hydrotherapeutic apparatus, &c.

Apparatus and instruments for the physical training of children: gymnastics for medical and hygienic purposes.

Apparatus for the succour of the wounded on the field of battle. Civil and military ambulances, for the use of the army and navy.

CLASS 12—MATHEMATICAL INSTRUMENTS AND APPARATUS FOR TEACHING SCIENCE.

(Exhibition Building, Gallery II.)

Instruments for practical geometry; compasses, verniers, micrometers, planimeters, calculating machines, &c. Apparatus and instruments for surveying, topography, geodesy, and astronomy. Apparatus used in different observatories.

Objets confectionnés en papier; abat-jour, lanternes, cache-pots, &c.

Registers, cahiers, albums et carnets. Reliures mobiles, étnis.

Produits divers pour lavis et aquarelles; couleurs en pains, en pastilles, en vessies, en tubes, en écailles. Instruments et appareils à l'usage des peintres, dessinateurs, graveurs, et modelleurs.

CLASSE 8—APPLICATIONS DU DESSIN ET DE LA PLASTIQUE AUX ARTS USUELS.

(Palais, Galerie II.)

Dessins industriels. Dessins obtenus, reproduits ou réduits par procédés mécaniques. Peintures de décors. Lithographies ou gravures industrielles. Modèles et maquettes pour figures, ornements, &c.

Objets sculptés. Camées, cachets et objets divers décorés par la gravure. Objets de plastique industrielle obtenus par des procédés mécaniques; réductions, photo-sculptures, etc. Objets moulés.

CLASSE 9—ÉPREUVES ET APPAREILS DE PHOTOGRAPHIE.

(Palais, Galerie II.)

Photographies sur papier, sur verre, sur bois, sur étoffe, sur émail. Gravures héliographiques. Épreuves lithographiques. Clichés photographiques. Épreuves stéréoscopiques et stéréoscopes. Épreuves obtenues par amplification.

Instruments, appareils et matières premières de la photographie. Matériel des ateliers de photographes.

CLASSE 10—INSTRUMENTS DE MUSIQUE.

(Palais, Galerie II.)

Instruments à vent non métalliques: à embouchure simple, à bec de sifflet, à anches avec ou sans réservoir d'air. Instruments à vent métalliques: simples, à rallonges, à coulisses, à pistons, à clefs, à anches. Instruments à vent à clavier: orgues, accordéons, etc. Instruments à cordes, pincées ou à archet, sans clavier. Instruments à cordes, à clavier: pianos, etc. Instruments à percussion ou à frottement. Instruments automatiques: orgues de barbarie, serinettes, etc. Pièces détachées et objets du matériel des orchestres.

CLASSE 11—APPAREILS ET INSTRUMENTS DE L'ART MÉDICAL.

(Palais, Galerie II.)

Appareils et instruments de pansement et de petite chirurgie. Instruments d'exploration médicale. Appareils et instruments de chirurgie.

Trousses et caisses d'instruments et de médicaments spécialement destinées aux chirurgiens de l'armée et de la marine, aux vétérinaires, aux dentistes, aux oculistes, etc. Appareils de secours aux noyés et aux asphyxiés, etc. Appareils d'électrothérapie. Appareils d'anesthésie locale et générale. Appareils de prothèse plastique et mécanique. Appareils d'orthopédie, bandages herniaires, etc. Appareils divers destinés aux malades, aux infirmes, aux aliénés. Objets accessoires du service médical, chirurgical et pharmaceutique des hôpitaux et infirmeries.

Matériel des recherches anatomiques. Appareils destinés aux recherches de médecine légale.

Matériel spécial de la médecine vétérinaire.

Appareils bainéatoires, hydrothérapiques, etc.

Appareils et instruments destinés à l'éducation physique des enfants; gymnastique médicale et hygiénique.

Matériel des secours à donner aux blessés sur le champ de bataille. Ambulances civiles et militaires, destinées au service des armées de terre et de mer.

CLASSE 12—INSTRUMENTS DE PRÉCISION ET MATÉRIEL DE L'ENSEIGNEMENT DES SCIENCES.

(Palais, Galerie II.)

Instruments de géométrie pratique: compas, verniers, vis micrométriques, planimètres, machines à calculer, etc. Appareils et instruments d'arpentage, de topographie, de géodésie et d'astronomie. Matériel des divers observatoires.

Mathematical apparatus and instruments. Measures and weights of the various countries. Coins and medals.

Scales for scientific purposes. Physical and meteorological apparatus and instruments. Common optical instruments.

Apparatus used in teaching physics, elementary and descriptive geometry, stereotomy, and mechanics.

Models and instruments for technological instruction in general.

Collections for illustrating the teaching of the natural sciences. Figures and models for teaching the medical sciences; anatomical preparations, &c.

CLASS 13—MAPS AND GEOGRAPHICAL AND COSMOGRAPHICAL APPARATUS.

(Exhibition Building, Gallery II.)

Topographical, geographical, geological, hydrographical, and astronomical maps and atlases. Charts. Physical maps of all kinds. Plans in relief.

Terrestrial and celestial globes and spheres. Apparatus for the study of cosmography.

Statistical works and tables. Tables and ephemerides for the use of astronomers and mariners.

GROUP III.

Furniture and other objects for the use of dwellings.*

CLASS 14—FANCY FURNITURE.

(Exhibition Building, Gallery III.)

Sideboards, bookcases, tables, toilet-tables, bedsteads, sofas, couches, billiard-tables, &c.

CLASS 15—UPHOLSTERY AND DECORATIVE WORK.

(Exhibition Building, Gallery III.)

Bed furniture. Stuffed chairs, canopies, curtains, tapestry and other hangings.

Objects of decorative furniture in precious stones and materials. Moulded objects, and ornaments in plaster, statuary pasteboard, &c. Frames. Decorative painting.

Ecclesiastical furniture, naments, and decorations.

CLASS 16—CRYSTAL, FANCY GLASS AND STAINED GLASS.

(Exhibition Building, Gallery III.)

Drinking glasses of crystal, cut glass, plated, mounted, &c.

Window glass, plate glass, and mirrors. Engraved, enamelled, cracked, frosted, &c.

Glass and pebbles for optical purposes, ornaments, &c.

Stained glass windows.

CLASS 17—PORCELAIN, EARTHENWARE AND OTHER FANCY POTTERY.

(Exhibition Building, Gallery III.)

Biscuit. Hard and soft porcelain.

Fine earthenware with coloured glazing, &c. Biscuit of earthenware. Terra cotta. Enamelled lava. Ceramic stoneware.

CLASS 18—CARPETS, TAPESTRY AND OTHER STUFFS FOR FURNITURE.

(Exhibition Building, Gallery III.)

Carpets, moquettes, tapestry, velvet pile, &c. Carpets of felt, cloth, cloth-shearings, silk or floss silk. Straw matting and mats. India-rubber matting.

Appareils et instruments des arts de précision. Mesures et poids des divers pays. Monnaies et médailles.

Balances de précision. Appareils et instruments de physique et de météorologie. Instruments d'optique usuels.

Matériel de l'enseignement des sciences physiques, de la géométrie élémentaire, de la géométrie descriptive, de la stéréotomie, de la mécanique.

Modèles et instruments destinés à l'enseignement technologique en général.

Collections pour l'enseignement des sciences naturelles. Figures et modèles pour l'enseignement des sciences médicales : pièces d'anatomie plastique, etc.

CLASSE 13—CARTES ET APPAREILS DE GÉOGRAPHIE ET DE COSMOGRAPHIE.

(Palais, Galerie II.)

Cartes et atlas topographiques, géographiques, géologiques, hydrographiques, astronomiques, etc. Cartes marines. Cartes physiques de toutes sortes. Plans en relief.

Globes et sphères terrestres et célestes. Appareils pour l'étude de la cosmographie.

Ouvrages et tableaux de statistique. Tables et éphémérides à l'usage des astronomes et des marins.

GROUPE III.

Meubles et autres objets destinés à l'habitation.*

CLASSE 14—MEUBLES DE LUXE.

(Palais, Galerie III.)

Buffets, bibliothèques, tables, toilettes; lits; canapés; sièges; billards, etc.

CLASSE 15—OUVRAGES DE TAPISSIER ET DE DÉCORATEUR.

(Palais, Galerie III.)

Objets de literie. Sièges garnis, baldaquins, rideaux, tentures d'étoffes et de tapisseries.

Objets de décoration et d'ameublement en pierres et en matières précieuses. Pâtes moulées, et objets de décoration en plâtre, carton-pierre, etc. Cadres. Peintures en décors.

Meubles, ornements et décors pour les services religieux.

CLASSE 16—CRISTAUX, VERRERIE DE LUXE ET VITRAUX.

(Palais, Galerie III.)

Gobletterie de cristal, cristaux taillés, cristaux doublés, cristaux montés, etc.

Verres à vitres et à glaces. Verres façonnés, émaillés, craquelés, filigranés, etc.

Verres, cristaux d'optique, objets d'ornement, etc.

Vitraux peints.

CLASSE 17—PORCELAINES, FAÏENCES ET AUTRES POTERIES DE LUXE.

(Palais, Galerie III.)

Biscuits. Porcelaines dures et porcelaines tendres. Faïences fines à couverte colorée, etc. Biscuits de faïence. Terres cuites. Laves émaillées.

Grès cérames.

CLASSE 18—TAPIS, TAPISSERIES ET AUTRES TISSUS D'AMEUBLEMENT.

(Palais, Galerie III.)

Tapis, moquettes, tapisseries, épinglés ou veloutés. Tapis de feutre, de drap, de tontisse, de soie ou de bourre de soie. Tapis de sparterie, nattes. Tapis de caoutchouc.

* Ordinary objects for the use of dwellings, the merit of which lies in their useful qualities combined with cheapness, are methodically exhibited in Class 91 (Group X.).

* Les objets d'usage courant destinés à l'habitation, et qui se recommandent par les qualités utiles unies au bon marché, sont méthodiquement exposés dans la Classe 91 (Groupe X.).

Furniture stuffs of cotton, wool or silk, plain or figured. Horsehair tissues.
Leather cloth, moleskins, &c. Leather hangings, and for covering furniture. Oil-cloth.

CLASS 19—PAPER HANGINGS.

(Exhibition Building, Gallery III.)

Paper hangings, block printed and machine printed. Flock paper, and paper marbled, veined, &c. Paper for making mill-board, for binding, &c.
Paper with artistic designs.
Blinds, painted or printed.

CLASS 20—CUTLERY.

(Exhibition Building, Gallery III.)

Knives, penknives, scissors, razors, &c. Cutlery of every description.

CLASS 21—GOLD AND SILVER PLATE.

(Exhibition Building, Gallery III.)

Church plate, ornamental plate, and plate for the dining table, gold and silver toilet articles and writing materials, &c.

CLASS 22—BRONZES AND OTHER ART CASTINGS, AND REPOUSSÉ WORK.

(Exhibition Building, Gallery III.)

Statues and bas-reliefs in bronze, cast iron, zinc, &c. Bronzes for ornamental and decorative purposes. Imitation bronzes in cast iron, zinc, &c. Castings coated with metal by the galvanic process.

Repoussé work in copper, lead, zinc, &c.

CLASS 23—CLOCKS AND WATCHES.

(Exhibition Building, Gallery III.)

Separate parts of clocks. Clocks, time-pieces, watches, chronometers, regulators, seconds-indicators, stop-watches, &c. Apparatus for measuring time: hour-glasses, water-clocks. Electric-clocks.

CLASS 24—APPARATUS AND PROCESSES FOR HEATING AND LIGHTING.

(Exhibition Building, Gallery III.)

Fenders, fire-places, grates, stoves, and hot-air stoves. Accessory objects for heating. Kitchen stoves. Apparatus for heating by gas.

Apparatus for heating by the circulation of hot water or hot air. Ventilating apparatus. Drying apparatus; drying stoves.

Enamellers' lamps, blow-pipes, portable forges. Lamps for illuminating purposes, fed with animal, vegetable, or mineral oils. Accessory objects for lighting. Matches.

Apparatus and accessory objects for lighting by gas. Lamps for the electric light. Apparatus for the use of the magnesium light, &c.

CLASS 25—PERFUMERY.

(Exhibition Building, Gallery III.)

Cosmetics and pomatums. Perfumed oils; essences, extracts and scents, aromatic vinegar; almond paste, perfumed powders, pastilles, and scent bags; perfumes for burning. Toilet soap.

CLASS 26—LEATHER WORK, FANCY ARTICLES AND BASKET WORK.

(Exhibition Building, Gallery III.)

Cabinets, liqueur cases, glove boxes, caskets, &c. Lacquered articles.

Boxes, jewel boxes, dressing cases, purses, pocket-books, note books, cigar cases.

Turned, engine-turned, carved, engraved articles in wood, ivory, tortoise-shell, &c. Snuff-boxes, pipes. Combs and brushes generally.

Fancy basket-work, wicker-work for bottles, and articles in fine straw.

Tissus d'ameublement, de coton, de laine ou de soie, unis ou façonnés. Tissus de crin.
Cuiris végétaux, moleskines, etc. Cuiris de tenture et d'ameublement. Toiles cirées.

CLASSE 19—PAPIERS PEINTS.

(Palais, Galerie III.)

Papiers imprimés à la planche, au rouleau, à la machine. Papiers veloutés, marbrés, veinés, etc. Papiers pour cartonnages, reliures, etc.
Papiers à sujets artistiques.
Stores peints ou imprimés.

CLASSE 20—COUTELLERIE.

(Palais, Galerie III.)

Couteaux, canifs, ciseaux, rasoirs, etc. Produits divers de la coutellerie.

CLASSE 21—ORFÈVRERIE.

(Palais, Galerie III.)

Orfèvrerie religieuse, orfèvrerie de décoration et de table, orfèvrerie pour ustensiles de toilette, de bureau, etc.

CLASSE 22—BRONZES D'ART, FONTES D'ART DIVERSES ET OUVRAGES EN MÉTAUX REPOUSSÉS.

(Palais, Galerie III.)

Statues et bas-reliefs de bronze, de fonte de fer, de zinc, etc. Bronzes de décoration ou d'ornement. Imitations de bronzes en fonte, en zinc, etc. Fontes revêtues d'enduits métalliques par galvanoplastie.

Repoussés en cuivre, en plomb, en zinc, etc.

CLASSE 23—HORLOGERIE.

(Palais, Galerie III.)

Pièces détachées d'horlogerie. Horloges, pendules, montres, chronomètres, régulateurs. Compteurs à secondes, à pointage, etc. Appareils pour la mesure du temps: sabliers, clepsydres. Horloges électriques.

CLASSE 24—APPAREILS ET PROCÉDÉS DE CHAUFFAGE ET D'ÉCLAIRAGE.

(Palais, Galerie III.)

Foyers, cheminées, poêles et calorifères. Objets accessoires du chauffage. Fourneaux. Appareils pour le chauffage au gaz.

Appareils de chauffage par circulation d'eau chaude ou d'air chaud. Appareils de ventilation. Appareils de dessiccation; étuves.

Lampes d'émailleur, chalumeaux, forges portatives. Lampes servant à l'éclairage au moyen des huiles animales, végétales ou minérales. Accessoires de l'éclairage. Allumettes.

Appareils et objets accessoires de l'éclairage au gaz. Lampes photo-électriques. Appareils pour l'éclairage au moyen du magnésium, etc.

CLASSE 25—PARFUMERIE.

(Palais, Galerie III.)

Cosmétiques et pommades. Huiles parfumées; essences parfumées, extraits et eaux de senteur, vinaigres aromatisés; pâtes d'amandes, poudres, pastilles et sachets parfumés; parfums à brûler. Savons de toilette.

CLASSE 26—OBJETS DE MAROQUINERIE, DE TABLETTERIE ET DE VANNERIE.

(Palais, Galerie III.)

Petits meubles de fantaisie, caves à liqueurs, boîtes à gants, coffrets, etc. Objets de laque.

Boîtes, écrins, nécessaires. Porte-monnaies, portefeuilles, carnets, porte-cigares.

Objets tournés, guillochés, sculptés, gravés, en bois, en ivoire, en écaïlle, etc. Tabatières, pipes.

Peignes; objets de broserie.
Corbeilles et paniers de fantaisie, clissages et objets de sparterie fine.

GROUP IV.

Clothing (including fabrics)* and other objects worn on the person.**CLASS 27—COTTON THREAD AND FABRICS.**

(Exhibition Building, Gallery IV.)

Cotton, dressed and spun.
Pure cotton fabrics, plain or figured. Mixed cotton fabrics.
Cotton velvet.
Cotton ribands and tapes.

CLASS 28—THREAD AND FABRICS OF FLAX, HEMP, &c.

(Exhibition Building, Gallery IV.)

Flax, hemp, and other vegetable fibres, spun.
Linen and drills. Cambric. Linen fabrics, mixed with cotton or silk.
Fabrics made from vegetable fibres as substitutes for flax and hemp.

CLASS 29—COMBED WOOL AND WORSTED FABRICS.

(Exhibition Building, Gallery IV.)

Combed wool; worsted yarn.
Muslin de laine, Scotch cashmere, merinos, serge, &c.
Worsted ribands and laces, mixed with cotton or thread, silk or floss-silk. Hair-tissues pure or mixed.

CLASS 30—CARDED WOOL AND WOOLLEN FABRICS.

(Exhibition Building, Gallery IV.)

Carded wool; woollen yarn.
Cloth and other milled woollen fabrics.
Blankets. Felt of wool or hair for carpets, hats, shaws.
Woollen fabrics unmilled, or slightly milled; flannel, tartans, swansdown.

CLASS 31—SILK AND SILK MANUFACTURES.

(Exhibition Building, Gallery IV.)

Raw and thrown silk. Floss silk, silk yarns.
Silk fabrics, pure, plain, figured, brocaded. Silk fabrics mixed with gold, silver, cotton, wool, thread.
Manufactures of floss-silk, pure or mixed.
Velvet and plush.
Silk ribands, pure or mixed.

CLASS 32—SHAWLS.

(Exhibition Building, Gallery IV.)

Woollen shawls, pure or mixed. Cashmere shawls.
Silk shawls, &c.

CLASS 33—LACE, NET, EMBROIDERY, AND SMALL WARE MANUFACTURES.

(Exhibition Building, Gallery IV.)

Thread or cotton lace made with the distaff, the needle or the loom. Lace made of silk, worsted, or mohair. Gold and silver lace.

Silk or cotton net, plain or figured.

Embroidery, crochet work, &c. Gold, silver, and silk embroidery. Tapestry work and other work done by the hand.

Lace work of silk, floss-silk, worsted, mohair, horse-hair, thread and cotton; laces. Lace-work, real or imitation. Lace-work for military uniforms.

GROUPE IV.

Vêtements (tissus compris)* et autres objets portés par la personne.**CLASSE 27—FILS ET TISSUS DE COTON.**

(Palais, Galerie IV.)

Cotons préparés et filés.
Tissus de coton pur, unis ou façonnés. Tissus de coton mélangé.
Velours de coton.
Rubannerie de coton.

CLASSE 28—FILS ET TISSUS DE LIN, DE CHANVRE, ETC.

(Palais, Galerie IV.)

Lins, chanvres et autres fibres végétales filées.
Toiles et coutils. Batistés. Tissus de fil avec mélange de coton ou de soie.
Tissus de fibres végétales, équivalents du lin et du chanvre.

CLASSE 29 — FILS ET TISSUS DE LAINE PEIGNÉE.

(Palais, Galerie IV.)

Laines peignées; fils de laine peignée.
Mousselines, cachemires d'Écosse, mérinos, serges, etc.
Rubans et galons de laine mélangée de coton ou de fil, de soie, ou de bourre de soie. Tissus de poils purs ou mélangés.

CLASSE 30—FILS ET TISSUS DE LAINE CARDÉE.

(Palais, Galerie IV.)

Laines cardées; fils de laine cardée.
Draps et autres tissus foulés de laine cardée.
Couvertures. Feutres de laine ou poil pour tapis, chapeaux, chaussons.
Tissus de laine cardée non foulés ou légèrement foulés: flanelles, tartans, molletons.

CLASSE 31—SOIES ET TISSUS DE SOIE.

(Palais, Galerie IV.)

Soies grèges et moulinés. Fils de bourre de soie.
Tissus de soie pure, unis, façonnés, brochés. Étoffes de soie mélangée d'or, d'argent, de coton, de laine, de fil. Tissus de bourre de soie, pure ou mélangée.
Velours et peluches.
Rubans de soie pure ou mélangée.

CLASSE 32—CHÂLES.

(Palais, Galerie IV.)

Châles de laine pure ou mélangée. Châles de cachemire.
Châles de soie, etc.

CLASSE 33—DENTELLES, TULLES, BRODERIES ET PASSEMENTERIES.

(Palais, Galerie IV.)

Dentelles de fil ou de coton faites au fuseau à l'aiguille ou à la mécanique. Dentelles de soie, de laine ou de poil de chèvre. Dentelles d'or ou d'argent.

Tulles de soie ou de coton, unis ou brochés.
Broderies au plumetis, au crochet, etc. Broderies d'or, d'argent, de soie. Broderies-tapisseries et autres ouvrages à la main.

Passementeries de soie, bourre de soie, laine, poil de chèvre, crin, fil et coton; lacets. Passementeries en fin et en faux. Passementeries spéciales pour équipement militaire.

* Articles of clothing as ordinarily worn, the merit of which lies in their useful qualities combined with cheapness, are methodically exhibited in Class 91 (Group X.)

* Les objets d'usage courant destinés au vêtement, et qui se recommandent par les qualités utiles unies au bon marché, sont méthodiquement exposés dans la Classe 91 (Groupe X.).

CLASS 34—HOSIERY AND UNDER-CLOTHING AND ARTICLES APPERTAINING THERETO.

(Exhibition Building, Gallery IV.)

Hosiery of cotton, thread, wool, cashmere, silk or floss-silk, pure or mixed.

Under-clothing for men, women, and children. Baby linen.

Flannel and other woollen garments.

Stays. Scarves. Gloves. Gaiters.

Fans, screens. Umbrellas, parasols, walking-sticks, &c.

CLASS 35—CLOTHING FOR BOTH SEXES.

(Exhibition Building, Gallery IV.)

Men's clothes; women's clothes.

Men's hats and caps; women's bonnets and head-dresses.

Wigs and works in hair.

Boots and shoes.

Children's clothes.

Clothing peculiar to various professions and trades.

CLASS 36—JEWELLERY AND PRECIOUS STONES.

(Exhibition Building, Gallery IV.)

Jewellery in precious metals (gold, platinum, silver, aluminium), chased, filigreed, set with precious stones, &c. Plated and imitation jewellery. Ornaments in jet, amber, coral, mother-of-pearl, steel, &c.

Diamonds, precious stones, pearls, and imitation pearls.

CLASS 37—PORTABLE WEAPONS.

(Exhibition Building, Gallery IV.)

Defensive armour: shields, cuirasses, helmets.

Offensive weapons: maces, life-preservers.

Side arms: foils, swords, sabres, bayonets, lances,

axes. Hunting knives (couteaux de chasse).

Missile weapons: bows, cross-bows, slings.

Fire-arms: guns, rifles, pistols, revolvers.

Accessory objects appertaining to every kind of small arms: powder flasks, bullet moulds. Round, oblong, hollow, and explosive projectiles. Copper-caps, priming, cartridges.

CLASS 38.—TRAVELLING APPARATUS AND CAMP EQUIPAGE.

(Exhibition Building, Gallery IV.)

Trunks, valises, saddle bags, &c. Dressing cases and fittings. Travelling bags; travelling rugs; cushions; caps, travelling costumes, and boots; sticks shod with iron, and with hooks; parasols, &c.

Portable apparatus specially intended for scientific voyages and expeditions: photographic apparatus, instruments for astronomical and meteorological observations; equipment and implements for geologists, mineralogists, naturalists, pioneer colonists, &c.

Tents and camp equipage. Furniture of military tents; beds, hammocks, folding chairs. Canteens: hand mills, military cooking stoves, &c.

CLASS 39—TOYS.

(Exhibition Building, Gallery IV.)

Dolls and playthings. Dolls and images in wax. Games for the amusement of children and adults.

Instructive games.

GROUP V.

Products (raw and manufactured) of mining industry, forestry, &c.

CLASS 40—MINING AND METALLURGY.

(Exhibition Building, Gallery V.)

Collections and specimens of rocks, minerals, and ores. Ornamental stones; marble, serpentine, onyx. Hard rocks. Refractory substances. Earths and clays.

Various mineral products. Sulphur. Rock-salt. Salt from salt springs. Bitumen and petroleum.

CLASSE 34—ARTICLES DE BONNETERIE ET DE LINGERIE; OBJETS ACCESSOIRES DU VÊTEMENT.

(Palais, Galerie IV.)

Bonneterie de coton, de fil, de laine ou de cachemire, de soie ou de bourre de soie, purs ou mélangés.

Lingerie confectionnée pour hommes, pour femmes et pour enfants. Layettes.

Confections de flanelles et autres tissus de laine.

Corsets. Cravates. Gants. Guêtres.

Éventails; écrans. Parapluies, ombrelles, cannes, etc.

CLASSE 35—HABILLEMENTS DES DEUX SEXES.

(Palais, Galerie IV.)

Habits d'hommes; habits de femmes.

Coiffures d'hommes; coiffures de femmes.

Perruques et ouvrages en cheveux.

Chaussures.

Confections pour enfants.

Vêtements spéciaux aux diverses professions.

CLASSE 36—JOAILLERIE ET BIJOUTERIE.

(Palais, Galerie IV.)

Bijoux en métaux précieux (or, platine, argent, aluminium), ciselés, filigranés, ornés de pierres fines, etc. Bijoux en doublé et en faux. Bijoux en jayet, ambre, corail, nacre, acier, etc.

Diamants, pierres fines, perles et imitations.

CLASSE 37—ARMES PORTATIVES.

(Palais, Galerie IV.)

Armes défensives; boucliers, cuirasses, casques.

Armes contondantes; massues, casse-tête.

Armes blanches; fleurets, épées, sabres, baïonnettes, lances, haches. Couteaux de chasse.

Armes de jet; arcs, arbalètes, frondes.

Armes à feu; fusils, carabines, pistolets, revolvers.

Objets accessoires d'arquebuserie; poudrières moulées à balles. Projectiles sphériques, oblongs creux, explosibles. Capsules, amorces, cartouches.

CLASSE 38—OBJETS DE VOYAGE ET DE CAMPEMENT.

(Palais, Galerie IV.)

Malles, valises, sacoches, etc. Nécessaires et troussees de voyage. Objets divers; couvertures de voyage; coussins; coiffures, costumes et chaussures de voyage; bâtons ferrés et à grappin, parasols, etc.

Matériel portatif spécialement destiné aux voyages et expéditions scientifiques: appareils de photographie, instruments pour les observations astronomiques et météorologiques; nécessaires et bagages du géologue, du minéralogiste, du naturaliste, du colon pionnier, etc.

Tentes et objets de campement. Mobilier des tentes militaires; lits, hamacs, sièges pliants. Cantines: moulins, fours de campagne, etc.

CLASSE 39—BIMBELOTERIE.

(Palais, Galerie IV.)

Poupées et jouets. Figures de cire et figurines. Jeux destinés aux récréations des enfants ou des adultes.

Jouets instructifs.

GROUPE V.

Produits (bruts et ouvrés) des industries extractives.

CLASSE 40—PRODUITS DE L'EXPLOITATION DES MINES ET DE LA MÉTALLURGIE.

(Palais, Galerie V.)

Collections et échantillons de roches, minéraux et minerais. Roches d'ornement; marbres, serpentines, onyx. Roches dures. Matériaux réfractaires. Terres et argiles.

Produits minéraux divers. Soufre brut. Sel gemme, sel des sources salées. Bitumes et pétroles.

Specimens of fuel in its natural state and carbonized. Compressed coal.

Metals in a crude state: pig-iron, iron, steel, cast steel, copper, lead, silver, zinc, &c. Alloys.

Products of washing and refining precious metals, of gold beating, &c.

Electro-metallurgy: objects gilt, silvered, or coated with copper or steel by galvanic process.

Products of the working of metals: rough castings; bells: wrought-iron; iron for special purposes; sheet-iron and tin plates; iron plates for casing ships and constructions; copper, lead, and zinc sheets.

Manufactured metals; blacksmith's work; wheels and tires; unwelded pipes; chains, &c.

Wire drawing: needles, pins; wire work and wire gauze. Perforated sheet-iron.

Hardware, ironmongery, edge-tools, copper and tin-ware, &c. Other metal manufactures.

CLASS 41—PRODUCTS OF THE CULTIVATION OF FORESTS, AND OF THE TRADES APPERTAINING THERETO.

(Exhibition Building, Gallery V.)

Specimens of different kinds of trees. Wood for cabinet-work, for building purposes. Fire-wood. Timber for shipbuilding; staves; cleft timber shingles. Cork; bark for textile purposes. Tanning, colouring, odoriferous, resinous substances.

Products obtained from forests: charcoal and dried wood; raw potash; turnery; basket-work; straw work; wooden shoes, &c.

CLASS 42—PRODUCTS OF SHOOTING, FISHING, AND OF THE EARTH OBTAINED WITHOUT CULTIVATION.

(Exhibition Building, Gallery V.)

Collections and drawings of terrestrial and amphibious animals, of birds, eggs, fish, of cetacea, of mollusca, and of crustacea.

Products of shooting; furs and skins, hair, bristles, feathers, down; horn, teeth, ivory, bone; tortoise-shell, musk, castoreum, and analogous products.

Products of fishing: train oil, spermaceti, &c.; whalebone; ambergris; shells of mollusca, pearls, mother of pearl, sepia, purple; coral, sponge.

Vegetable products of the earth obtained without culture: mushrooms, truffles, wild fruit, lichens used as dyes, food and fodder; fermented sap; Peruvian bark; useful barks and filaments; wax, resinous gums; india-rubber, gutta-percha, &c.

CLASS 43—AGRICULTURAL PRODUCTS (NOT USED AS FOOD) EASILY PRESERVED.

(Exhibition Building, Gallery V.)

Textile materials; raw cotton, flax and hemp scutched and unscutched, textile vegetable fibres of all kinds; wool in its grease; cocoons of the silk worm.

Various agricultural products used in manufactures, in pharmacy, and for household purposes; oleaginous plants; oils, wax, resin.

Tobacco. German tinder. Tanning substances. Dyeing substances. Preserved fodder.

CLASS 44—CHEMICAL AND PHARMACEUTICAL PRODUCTS.

(Exhibition Building, Gallery V.)

Acids, alkalis. Salts of all kinds. Sea salt, and products extracted from mother water.

Various products of chemistry; wax and fatty substances; soaps and candles; raw materials used in perfumery; resins, tar, and the products derived therefrom; essences and varnishes; various coating substances, blacking. India-rubber and gutta-percha and their products; dyes and colours.

Mineral and sparkling waters, natural or artificial. Raw materials used in pharmacy. Simple and compound drugs.

Échantillons de combustibles crus et carbonisés. Agglomérés de houille.

Métaux bruts: fontes, fers, aciers, fers aciéreux, cuivre, plomb, argent, zinc, etc. Alliages métalliques.

Produits de l'art du laveur de cendres et de l'affineur de métaux précieux, du batteur d'or, etc.

Produits de l'électro-metallurgie: objets dorés, argentés, cuivrés, acierés, etc., par la galvanoplastie.

Produits de l'élaboration des métaux bruts: fontes moulées; cloches; fers marchands; fers spéciaux; tôles et fers-blancs; tôles extra pour blindages et constructions. Tôles de cuivre, de plomb, de zinc.

Métaux ouvrés: pièces de forge et de grosse serrurerie; roues et bandages; tubes sans soudure; chaînes, etc.

Produits de la tréfilerie. Aiguilles, épingles, treillages, tissus métalliques. Tôles perforées.

Produits de la quincaillerie, de la taillanderie, de la feronnerie, de la chaudronnerie, de la tôlerie et de la ferblanterie. Métaux ouvrés divers.

CLASSE 41—PRODUITS DES EXPLOITATIONS ET DES INDUSTRIES FORESTIÈRES.

(Palais, Galerie V.)

Échantillons d'essences forestières. Bois d'œuvre, de chauffage et de construction. Bois ouvrés pour la marine; merrains, bois de fente. Lièges; écorces textiles. Matières tannantes, colorantes, odorantes, résineuses, etc.

Produits des industries forestières: bois torréfiés et charbons; potasses brutes; objets de boissellerie, de vannerie, de sparterie; sabots, etc.

CLASSE 42—PRODUITS DE LA CHASSE, DE LA PÊCHE ET DES CUEILLETES.

(Palais, Galerie V.)

Collections et dessins d'animaux terrestres et amphibies, d'oiseaux, d'œufs, de poissons, de cétacés, de mollusques et de crustacés.

Produits de la chasse: fourrures et pelleteries, poils, crins, plumes, duvets; cornes, dents, ivoire, os; écaille, musc, castoreum et produits analogues.

Produits de la pêche: huile de baleine, spermacéti, etc.; fanons de baleine; ambre gris; coquilles de mollusques, perles, nacrés, sépia, pourpre; coraux, éponges.

Produits des cueillettes ou récoltes obtenues sans culture: champignons, truffes, fruits sauvages, lichens employés pour teintures, aliments et fourrages; sèves fermentées; quinquinas; écorces et filaments utiles; cires, gommés-résines; caoutchouc brut, gutta-percha, etc.

CLASSE 43—PRODUITS AGRICOLES (NON ALIMENTAIRES) DE FACILE CONSERVATION.

(Palais, Galerie V.)

Matières textiles: cotons bruts, lins et chanvres teillés et non teillés, fibres végétales métalliques de toute nature; laines en suint; cocoons de vers à soie.

Produits agricoles divers, employés dans l'industrie, dans la pharmacie et dans l'économie domestique: plantes oléagineuses, huiles, cires, résines.

Tabacs. Amadou. Matières tannantes. Substances tinctoriales. Fourrages conservés.

CLASSE 44—PRODUITS CHIMIQUES ET PHARMACEUTIQUES.

(Palais, Galerie V.)

Acides, alcalis. Sels de toutes sortes. Sel marin et produits de l'exploitation des eaux-mères.

Produits divers des industries chimiques: cires et corps gras; savons et bougies; matières premières de la parfumerie; résines, goudrons et corps dérivés; essences et vernis; enduits divers, cirages. Produits de l'industrie du caoutchouc et de la gutta-percha; matières tinctoriales et colorants.

Eaux minérales et eaux gazeuses, naturelles ou artificielles. Matières premières de la pharmacie. Médicaments simples et composés.

CLASS 45—SPECIMENS OF THE CHEMICAL PROCESSES FOR BLEACHING, DYEING, PRINTING, AND DRESSING.

(Exhibition Building, Gallery V.)

Specimens of dyed thread and fabrics. Specimens of fabrics prepared for dyeing. Printed or dyed linen. Printed cotton fabrics, pure or mixed.

Printed woollen and worsted fabrics, pure or mixed. Printed silk fabrics, pure or mixed.

Printed felt or cloth carpets. Oil cloth.

N.B.—In this class will be exhibited only such specimens as are essential for the proper appreciation of the value of the processes.

CLASS 46—LEATHER AND SKINS.

(Exhibition Building, Gallery V.)

Raw materials used in the dressing of skins and leather.

Raw hides, salted hides. Leather tanned, curried dressed, or dyed. Varnished leather. Morocco and sheepskin. Skins grained, shamoyed, tawed, dressed, or dyed. Prepared skins for glove making. Skins and furs dressed and dyed. Parchment.

Gutwork: strings for musical instruments, gold beater's skin, sinews, &c.

GROUP VI.

Apparatus and processes used in the common arts.

CLASS 47—APPARATUS AND PROCESSES OF THE ART OF MINING AND METALLURGY.

(Exhibition Building, Gallery V.)

Boring apparatus for artesian wells and wells of large diameters. Boring machines and apparatus for breaking down coal, and cutting rocks. Apparatus for blasting by electricity.

Models, plans, and views of the mode of working in mines and quarries. Works for obtaining mineral waters. Mining ladders moved by machinery. Extracting apparatus. Machines for draining; pumps. Ventilating apparatus; ventilators. Safety lamps, lamps for electric light. Apparatus for saving life, parachutes, signals.

Apparatus for the mechanical dressing of ores and mineral fuel. Apparatus for compressing fuel into cakes.

Apparatus for the carbonisation of fuel. Smelting furnaces; smoke consuming apparatus. Apparatus used in metal works. Special apparatus used in forges and foundries.

Electro-metallurgical apparatus.

Apparatus used in metal manufactures of all kinds.

CLASS 48—AGRICULTURAL APPARATUS AND PROCESSES USED IN THE CULTIVATION OF FIELDS AND FORESTS.

(Exhibition Building, Gallery VI.)

Plans of culture, distribution of crops and management. Apparatus for agricultural works; drainage, irrigation. Plans and models of farm buildings.

Tools, implements, machines and apparatus used in husbandry, sowing and planting, harvesting, preparation and preservation of crops. Carts and other rural means of transport. Locomotives and horse-gins.

Manures, organic or mineral.

Apparatus for the physical and chemical study of soils.

CLASSE 45—SPÉCIMENS DES PROCÉDÉS CHIMIQUES DE BLANCHIMENT, DE TEINTURE, D'IMPRESSION ET D'APPRÊTS.

(Palais, Gallery V.)

Échantillons de fils et tissus teints. Échantillons de préparations pour la teinture. Toiles imprimées ou teintes. Tissus de coton, pur ou mélangé, imprimés. Tissus de laine, pure ou mélangée, peignée ou cardée, imprimés. Tissus de soie, pure ou mélangée, imprimés. Tapis de feutre ou de drap imprimés. Toiles cirées.

NOTA.—On n'exposera dans cette classe que les spécimens strictement nécessaires pour faire apprécier la valeur des procédés.

CLASSE 46—CUIRS ET PEAUX.

(Palais, Galerie V.)

Matières premières employées dans la préparation des peaux et des cuirs.

Peaux vertes, peaux salées. Cuirs tannés, corroyés, apprêtés ou teints. Cuirs vernis. Maroquins et basanes. Peaux hongroyées, chamoisées, mégissées, apprêtées ou teintes. Peaux préparées pour la ganterie. Pelleteries et fourrures apprêtées et teintes. Parchemins.

Articles de boyauderie: cordes pour instruments de musique, baudruches, nerfs de bœuf, etc.

GROUPE VI.

Instruments et procédés des arts usuels.

CLASSE 47—MATÉRIEL ET PROCÉDÉS DE L'EXPLOITATION DES MINES ET DE LA MÉTALLURGIE.

(Palais, Galerie VI; Parc.)

Matériel des sondages pour recherches, pour puits artésiens et pour puits à grande section. Machines à forer les trous de mine, à abatre la houille et à débiter les roches. Appareils pour le tirage électrique des mines.

Modèles, plans et vues de travaux d'exploitation de mines et carrières. Travaux de captage des eaux minérales. Échelles de mines mues par des machines. Matériel de l'extraction. Machines d'épuisement, pompes. Appareils d'aérage; ventilateurs. Lampes de sûreté, lampes photo-électriques. Appareils de sauvetage, parachutes, signaux.

Appareils de préparation mécanique des minerais et des combustibles minéraux. Appareils à agglomérer les combustibles.

Appareils pour la carbonisation des combustibles. Foyers et fourneaux métallurgiques; appareils fumivores. Matériel des usines métallurgiques. Matériel spécial des forges et fonderies.

Appareils d'électro-metallurgie.

Matériel des ateliers d'élaboration des métaux sous toutes les formes.

CLASSE 48—MATÉRIEL ET PROCÉDÉS DES EXPLOITATIONS RURALES ET FORESTIÈRES.

(Palais, Galerie VI.)

Plans de culture, assolements et aménagements agricoles. Matériel et travaux du génie agricole: dessèchements, drainage, irrigations. Plans et modèles de bâtiments ruraux.

Outils, instruments, machines et appareils servant au labourage et autres façons données à la terre, à l'ensemencement et aux plantations, à la récolte, à la préparation et à la conservation des produits de la culture. Matériel des charrois et des transports ruraux. Machines locomobiles et manèges.

Matières fertilisantes d'origine organique ou minérale.

Appareils pour l'étude physique et chimique des sols.

Plans of different systems of re-planting, managing, and cultivating forests.

Apparatus used in the cultivation of forests, and in the trades appertaining thereto.

CLASS 49—APPARATUS USED IN SHOOTING, FISHING TACKLE, AND IMPLEMENTS USED IN GATHERING FRUITS OBTAINED WITHOUT CULTURE.

(Exhibition Building, Gallery VI.)

Guns, traps, and shooting apparatus and equipment. Fishing lines and hooks. Harpoons. Nets. Fishing tackle and bait.

Apparatus and implements used in gathering products obtained without cultivation.

CLASS 50—APPARATUS AND PROCESSES USED IN AGRICULTURAL WORKS, AND IN WORKS FOR THE PREPARATION OF FOOD.

(Exhibition Building, Gallery VI.)

Apparatus used in agricultural works: manufacture of artificial manures, of drain-pipes; dairies; apparatus used in making flour, fecula, starches, oils; apparatus used in breweries; distilleries; sugar manufactories, and refineries; workshops for the dressing of textile materials; silk worm nurseries, &c.

Apparatus used in the preparation of alimentary products, bread making machinery and mechanical ovens for bakers, instruments used in making pastry and confectionary. Apparatus for the manufacture of vermicelli, macaroni, &c. Machines for making ship-biscuits. Chocolate machines. Apparatus for roasting coffee. Apparatus for making ices and cool drinks; ice making.

CLASS 51—APPARATUS USED IN CHEMISTRY, PHARMACY, AND IN TAN YARDS.

(Exhibition Building, Gallery VI.; Park.)

Laboratory utensils and apparatus. Apparatus and instruments used in assays for industrial and commercial purposes.

Processes and apparatus used in the manufacture of chemicals, soaps, candles.

Processes and apparatus used in the manufacture of essences, varnishes, and articles in india-rubber and gutta-percha.

Processes and apparatus used in gas-works.

Processes and apparatus used in bleaching.

Processes used in the preparation of pharmaceutical products.

Processes used in tan-yards, and leather dressing.

Processes and apparatus used in glass works and in ceramic manufactures.

CLASS 52 — PRIME-MOVERS, BOILERS, AND ENGINES SPECIALLY ADAPTED TO THE REQUIREMENTS OF THE EXHIBITION.

(Exhibition Building, Gallery VI.; Park.)

Boilers and steam generators with their safety valves. Steam pipes and apparatus connected with them.

Shafts. Pulleys and belts. Appliances for starting and stopping engines, and for throwing in and out of gear.

Engines used for supplying the water and steam necessary in the different sections of the Exhibition building and Park.

Cranes and apparatus of all kinds intended to be used for moving the packages.

Rails and turntables intended to be used for moving the packages, fodder and manure, and for other purposes that may be required in the Exhibition building and Park.

CLASS 53 — MACHINES AND APPARATUS IN GENERAL.

(Exhibition Building, Gallery VI.)

Separate parts of machinery: bearings, rollers, slide-bars, eccentric wheels, toothed wheels, connecting rods,

Plans de systèmes de reboisement, d'aménagement, de culture des forêts.

Matériel des exploitations et des industries forestières.

CLASSE 49—ENGINS ET INSTRUMENTS DE LA CHASSE, DE LA PÊCHE ET DES CUEILLETES.

(Palais, Galerie VI.; Parc.)

Armes, pièges, engins et équipements de chasse. Lignes et hameçons. Harpons. Filets. Appareils et appâts de pêche.

Appareils et instruments pour la récolte des produits obtenus sans culture.

CLASSE 50 — MATÉRIEL ET PROCÉDÉS DES USINES AGRICOLES ET DES INDUSTRIES ALIMENTAIRES.

(Palais, Galerie VI.)

Matériel des usines agricoles: fabriques d'engrais artificiels, de tuyaux de drainage; fromageries et laiteries; minoteries, féculeries, amidonneries; huileries, brasseries, distilleries, sucreries, raffineries; ateliers pour la préparation des matières textiles; magnaneries, etc.

Matériel de la fabrication des produits alimentaires; pétrisseurs et fours mécaniques pour boulangers, ustensiles de pâtisserie et de confiserie. Appareils pour la fabrication des pâtes alimentaires. Machines à faire le biscuit de mer. Machines à préparer le chocolat. Appareils pour la torréfaction du café. Préparation des glaces et des sorbets; fabrication de la glace.

CLASSE 51—MATÉRIEL DES ARTS CHIMIQUES, DE LA PHARMACIE, DE LA TANNERIE.

(Palais, Galerie VI.; Parc.)

Ustensiles et appareils de laboratoire. Appareils et instruments destinés aux essais industriels et commerciaux.

Matériel et appareils des fabriques de produits chimiques, de savons, de bougies.

Matériel et procédés de la fabrication des essences, des vernis, des objets en caoutchouc et en gutta-percha.

Matériel et appareils des usines à gaz.

Matériel et procédés des b'anchisseries.

Matériel de la préparation des produits pharmaceutiques.

Matériel des ateliers de tannerie et de mégisserie.

Matériel et procédés des verreries et des fabriques de produits céramiques.

CLASSE 52—MOTEURS, GÉNÉRATEURS ET APPAREILS MÉCANIQUES SPÉCIALEMENT ADAPTÉS AUX BESOINS DE L'EXPOSITION.

(Palais, Galerie VI.; Parc.)

Chaudières et générateurs de vapeur avec leurs appareils de sûreté. Conduites de vapeur et appareils accessoires.

Arbres de couche. Poulies de renvoi, courroies. Organes de mise en marche, d'arrêt, d'embrayage et de débrayage.

Moteurs employés pour fournir l'eau et la force motrice nécessaires dans les diverses parties du Palais et du Parc.

Grues et appareils de toutes sortes proposés pour la manutention des colis.

Rails et plaques tournantes proposés pour la manutention des colis, des fourrages, des fumiers et pour les autres services du Palais et du Parc.

CLASSE 53—MACHINES ET APPAREILS DE LA MÉCANIQUE GÉNÉRALE.

(Palais, Galerie VI.)

Pièces de mécanismes détachées: supports, galets, glissières, excentriques, engrenages, bielles, parallé-

cranks, parallel-joints, belts, funicular apparatus, &c. Gearing, spring, and catch work, &c. Regulators and governors. Greasing apparatus.

Machines for measuring and registering. Dynamometers, steam-gauges, weighing machines. Gauges for liquids and gas.

Machines used for moving heavy weights.

Hydraulic machines for raising water, &c.; norias (chain-pumps), scoop-wheels, hydraulic rams, &c. Hydraulic engines, water-wheels, turbines, &c.

Steam engines. Boilers, steam generators and apparatus appertaining thereto. Apparatus for condensing steam. Machines set in motion by the evaporation of ether, chloroform, ammonia; of a combination of gases.

Machines set in motion by gas, hot air, compressed air, electro-magnetic machines. Windmills and panemones. Air-balloons.

CLASS 54—MACHINE TOOLS.

(Exhibition Building, Gallery VI.)

Engines and tools for preparing wood for the workshop. Lathes, boring machines, and planing machines. Slotting machines, drilling machines, shaping machines, &c. Screw cutting engines, and riveting machines. Various kinds of tools used in machine workshops.

Tools, engines and apparatus for pressing, crushing, working up, sawing, polishing, &c.

Special tools and engines used in various trades.

CLASS 55—APPARATUS AND PROCESSES USED IN SPINNING AND ROPE MAKING.

(Exhibition Building, Gallery VI.)

Hand spinning apparatus. Separate parts of spinning apparatus. Machines and apparatus used in the dressing and spinning of textile materials. Apparatus and processes for the subsidiary operations appertaining thereto; for drawing, winding, twisting, throwing. Dressing machines. Apparatus for separating the qualities and numbering the thread.

Materials used in rope manufacture. Round, flat, tapering cables, cord and twine; wire rope, cables with wire core, rope-matches, quick-matches, &c.

CLASS 56—APPARATUS AND PROCESSES USED IN WEAVING.

(Exhibition Building, Gallery VI.)

Apparatus used in the preparation of materials for weaving; warping mills, spooling (winding) machines. Card making for the jacquard looms.

Hand looms and mechanical looms for the manufacture of plain fabrics. Looms for the manufacture of figured and brocaded stuffs; damask looms, electric looms. Looms for the manufacture of carpets and tapestry.

Mesh weaving looms for the manufacture of hosiery and net. Apparatus for making lace. Apparatus used in the manufacture of lace-work.

High warp looms, and different modes of preparing the bobbins for weaving.

Accessory apparatus: machines for fulling, callendering, figuring, watering, measuring, folding, &c.

CLASS 57—APPARATUS AND PROCESSES FOR SEWING, AND FOR MAKING UP CLOTHING.

(Exhibition Building, Gallery VI.)

Ordinary implements used by tailors and seamstresses. Sewing, quilting, hemming, and embroidering machines.

Knives for cutting out cloth and leather for making garments and shoes. Machines for making boots and shoes, for nailing and screwing soles.

CLASS 58—APPARATUS AND PROCESSES USED IN THE MANUFACTURE OF FURNITURE AND OBJECTS FOR DWELLINGS.

(Exhibition Building, Gallery VI.)

Machines for cutting veneers. Turning webs, saw frames, &c. Machines for cutting the mouldings and

grammes et joints, courroies, systèmes funiculaires, etc. Embrayages, déclies, etc. Régulateurs et modérateurs de mouvement. Appareils de graissage.

Compteurs et enregistreurs. Dynamomètres, manomètres, appareils de pesage. Appareils de jaugeage des liquides et des gaz.

Machines servant à la manœuvre des fardeaux.

Machines hydrauliques élévatoires: norias, pompes, tympans, béliers hydrauliques, etc. Récepteurs hydrauliques: roues, turbines, machines à colonne d'eau.

Machines motrices à vapeur. Chaudières, générateurs de vapeur et appareils accessoires. Appareils de condensation des vapeurs. Machines à vapeur d'éther, de chloroforme, d'ammoniaque; à vapeurs combinées.

Machines à gaz, à air chaud, à air comprimé. Moteurs électro-magnétiques. Moulins à vent et panemones. Aérostats.

CLASSE 54—MACHINES-OUTILS.

(Palais, Galerie VI.)

Machines-outils servant au travail préparatoire des bois. Tours et machines à aléser et à raboter. Machines à mortaiser, à percer, à découper. Machines à tarauder, à fileter, à river. Outils divers des ateliers de constructions mécaniques.

Outils, machines et appareils servant à presser, à broyer, à malaxer, à scier, à polir, etc.

Machines-outils spéciales à diverses industries.

CLASSE 55 — MATÉRIEL ET PROCÉDÉS DU FILAGE ET DE LA CORDERIE.

(Palais, Galerie VI.)

Matériel du filage à la main. Pièces détachées appartenant au matériel des filatures. Machines et appareils servant à la préparation et à la filature des matières textiles. Appareils et procédés destinés aux opérations complémentaires: étirage, dévidage, retordage, moulinage, apprêts mécaniques. Appareils pour le conditionnement et le tirage des fils.

Matériel des ateliers de corderie. Câbles ronds, plats, diminués, cordes et ficelles, câbles en fils métalliques, câbles à âme métallique, mèches à feu, étoupilles, etc.

CLASSE 56—MATÉRIEL ET PROCÉDÉS DU TISSAGE.

(Palais, Galerie VI.)

Appareils destinés aux opérations préparatoires du tissage: machines à ourdir, à bobiner. Lisages.

Métiers ordinaires et mécaniques pour la fabrication des tissus unis. Métiers pour la fabrication des étoffes façonnées et brochées, battants-brocheurs, métiers électriques. Métiers à fabriquer les tapis et tapisseries.

Métiers à mailles pour la fabrication de la bonneterie et des tulle. Matériel de la fabrication de la dentelle. Matériel des fabriques de passementerie.

Métiers de haute lisse et procédés d'espouillage.

Appareils accessoires: machines à fouler, calandrer, gauffer, moirer, métrer, plier, etc.

CLASSE 57—MATÉRIEL ET PROCÉDÉS DE LA COUTURE ET DE LA CONFECTION DES VÊTEMENTS.

(Palais, Galerie VI.)

Outils ordinaires des ateliers de couture et de confection. Machines à coudre, à piquer, à ourler, à border.

Scies à découper les étoffes et les cuirs pour la confection des vêtements et chaussures. Machines à faire, à clouer et à visser les chaussures.

CLASSE 58—MATÉRIEL ET PROCÉDÉS DE LA CONFECTION DES OBJETS DE MOBILIER ET D'HABITATION.

(Palais, Galerie VI.)

Machines à débiter les bois de placage. Scies à découper, à chantourner, etc. Machines à faire les

beadings of frames, the squares of inlaid floors, furniture, &c. Lathes and other apparatus used in carpentering and cabinet making.

Machines for stamping and burnishing. Machines and apparatus for working stucco, papier-maché, ivory, bone and horn.

Machines for pointing, carving, and reducing statues; for engraving, engine turning, &c.

Machines for sawing and polishing hard substances, marbles, &c.

CLASS 59—APPARATUS AND PROCESSES USED IN PAPER MAKING, DYEING, AND PRINTING.

(Exhibition Building, Gallery VI.)

Apparatus for printing paper hangings and tissues. Machines for engraving cylinders for printing.

Apparatus for bleaching and dyeing, and for the preparation of paper and tissues.

Apparatus for making paper by hand and by machinery. Apparatus for embossing, ruling, glazing, and watering paper. Machines for cutting out, paring, stamping paper, &c.

Materials, apparatus, and products of type-founding; stereotypes, &c. Machines and apparatus used in typography, stereotyping, copper-plate printing, lithography, autography, chalcography, paniconography, chromolithography, &c. Printing of postage stamps. Machines for setting up and sorting types.

CLASS 60—MACHINES, INSTRUMENTS, AND PROCESSES USED IN VARIOUS WORKS.

(Exhibition Building, Gallery VI.)

Coining presses.

Machines for making buttons, pins, pens, envelopes, packing machines, brush-making machines, machines for making cards, capsules, for affixing lead seals to merchandise, for corking bottles, &c.

Tools for, and processes of, making clock-work, toys, marqueterie, baskets, &c.

CLASS 61—CARRIAGES AND WHEELWRIGHTS' WORK.

(Exhibition Building, Gallery VI.)

Separate parts of wheels and carriages; wheels, tires, axles, axle-boxes, iron work, &c., springs and various methods of hanging carriages. Different systems of harnessing. Breaks.

Wheelwrights' work: waggons, tumblers, drays, and other vehicles for special purposes.

Carriages: public, state, and private carriages; sedan chairs, litters, sledges, &c., velocipedes.

CLASS 62—HARNESS AND SADDLERY.

(Exhibition Building, Gallery VI.)

Various articles used for carriage horses and saddle horses; pack saddles, saddles, bridles, and harness for saddle horses, beasts of burden, and draught horses; spurs, whips.

CLASS 63—RAILWAY APPARATUS.

(Exhibition Building, Gallery VI.)

Separate parts: springs, buffers, breaks, &c.

Permanent way: rails, chairs, crossings, switches, fish plates, turntables; buffers; feeding cranes and tanks; optical and acoustic signals.

Rolling stock: waggons for carrying earth, goods, cattle; passenger carriages; locomotives, tenders.

Special machines and tools for the maintenance, repair, and construction of railways.

Apparatus for inclined planes, and self-acting planes; apparatus and engines for atmospheric railways; models of engines, of systems of traction, of apparatus appertaining to railways.

Models, plans, and drawings of platforms, stations, engine houses, and other buildings necessary for the working of railways.

mon lures, les baguettes de cadre, les feuilles de parquet, les meubles, etc. Tours et appareils divers des ateliers de menuiserie et d'ébénisterie.

Machines à estamper et à emboutir. Machines et appareils pour le travail du stuc, du carton-pâte, de l'ivoire, de l'os, de la corne.

Machines à mettre au point, à sculpter, à réduire les statues, à graver, à guillocher, etc.

Machines à scier et polir les pierres dures, les marbres, etc.

CLASSE 59—MATÉRIEL ET PROCÉDÉS DE LA PAPERETERIE, DES TEINTURES ET DES IMPRESSIONS.

(Palais, Galerie VI.)

Matériel de l'impression des papiers peints et des tissus. Machines à graver les rouleaux d'impression.

Matériel du blanchiment, de la teinture et de l'apprêt des papiers et des tissus.

Matériel de la fabrication du papier à la cuve et à la machine. Appareils pour gaufrir, régler, glacer, moirer le papier. Machines à découper, rogner, timbrer les papiers, etc.

Matériel, appareils et produits des fonderies en caractères; clichés, etc. Machines et appareils employés dans la typographie, la stéréotypie, l'impression en taille douce, l'autographie, la chalcographie, la paniconographie, la chromolithographie, etc. Impression des timbres-poste. Machines à composer et à trier les caractères.

CLASSE 60—MACHINES, INSTRUMENTS ET PROCÉDÉS UTILISÉS DANS DIVERS TRAVAUX.

(Palais, Galerie VI.)

Presses monétaires.

Machines servant à la fabrication des boutons, des plumes, des épingles, des enveloppes de lettres, à emballer, à confectionner les brosses, les cartes, à fabriquer les capsules, à plomber les marchandises, à boucher les bouteilles, etc.

Outils et procédés de la fabrication des objets d'horlogerie, de bimbeloterie, de marqueterie, de vanerie, etc.

CLASSE 61—CARROSSERIE ET CHARRONNAGE.

(Palais, Galerie VI.)

Pièces détachées de charonnage et de carrosserie: roues, bandages, essieux, boîtes de roues, ferrures, etc. Ressorts et systèmes divers de suspension. Systèmes d'attelage. Freins.

Produits du charonnage: chariots, tombereaux, camions, véhicules à destination spéciale.

Produits de la carrosserie: voitures publiques, voitures d'apparat, voitures particulières; chaises à porteurs, litères, traîneaux, etc.; vélocipèdes.

CLASSE 62—BOURRELLERIE ET SELLERIE.

(Palais, Galerie VI.)

Articles de harnachement et d'éperonnerie: bâts, selles, caolets; brides et harnais pour montures, pour bêtes de somme et de trait; éperons; fouets et cravaches.

CLASSE 63—MATÉRIEL DES CHEMINS DE FER.

(Palais, Galerie VI.)

Pièces détachées: ressorts, tampons, freins, etc.

Matériel fixe: rails, coussinets, éclisses, changements de voie, aiguilles, plaques tournantes; tampons de choc; grues d'alimentation et réservoirs; signaux optiques et acoustiques.

Matériel roulant: wagons à terrassement, à marchandises, à bestiaux, à voyageurs; locomotives, tenders.

Machines spéciales et outillage des ateliers d'entretien, de réparation et de construction du matériel.

Matériel et machines pour plans inclinés et plans automoteurs; matériel et machines pour chemins de fer atmosphériques; modèles de machines, de systèmes de traction, d'appareils relatifs aux voies ferrées.

Modèles, plans et dessins, de gares, de stations, de remises et de dépendances de l'exploitation des chemins de fer.

CLASS 64—TELEGRAPHIC APPARATUS AND PROCESSES.

(Exhibition Building, Gallery VI.)

Telegraphs based on the transmission of light, sound, &c.

Apparatus for the electric telegraph: posts, wires, stretchers, &c.; batteries, apparatus for sending and receiving messages. Bells and electric signals. Objects appertaining to telegraphy; lightning conductors, commutators, prepared paper for printing messages and for sending autographic messages. Special apparatus for submarine telegraphy.

CLASS 65—CIVIL ENGINEERING, PUBLIC WORKS, AND ARCHITECTURE.

(Exhibition Building, Gallery VI.)

Building materials: stone, wood, metals; ornamental stone; lime, mortar, cements, artificial stone and concrete; roofing tiles, bricks, paving tiles; slates, paste-board, and felt for roofing. Materials used in the preservation of wood, and specimens of preserved wood. Apparatus and instruments for testing building materials.

Apparatus for earthworks; excavators. Apparatus used in timber yards. Tools and processes used by stone-dressers and cutters, masons, carpenters, blacksmiths, joiners, glaziers, plumbers, house painters, &c.

Locksmiths' work; locks, padlocks; railings, balconies, bannisters, &c.

Apparatus and engines used in making foundations: pile-drivers, and pile work, screw piles; pumps, pneumatic apparatus; dredging machines, &c. Apparatus used in hydraulic works connected with harbours, canals, rivers.

Apparatus used in the supply of water and gas. Apparatus used in the maintenance of roads, plantations, and public walks.

Models, plans, and drawings of public works: bridges, viaducts, aqueducts, drains, canal bridges. Lighthouses; public buildings for special purposes; buildings for civil purposes; mansions and houses for letting; lodging houses for the working classes, &c.

CLASS 66—NAVIGATION AND LIFE BOATS.

(Exhibition Building, Gallery VI.; Park.)

Drawings and models of slips, graving docks, floating docks, &c.

Drawings and models of ships of all kinds, sea-going and for rivers. Models of the systems of ship-building adopted in the navy. Apparatus used in navigation.

Boats and barges.

Rigging. Flags and signals.

Buoys, beacons, &c.

Apparatus for swimming, diving, exhibited in action; life belts, life buoys, floats, swimming belts, &c. Diving bells; cork-corsets, nautilus life belts, &c. Submarine boats. Apparatus for saving life at sea, rocket apparatus, life boats, &c.

GROUP VII.

Food (fresh or preserved) in various states of preparation.

CLASS 67—CEREALS AND OTHER EATABLE FARINACEOUS PRODUCTS; AND THE PRODUCTS DERIVED FROM THEM.

(Exhibition Building, Gallery VII.)

Wheat, rye, barley, rice, maize, millet, and other cereals in grain and in flour.

Grain without husk and groats.

Fecula from potatoes, rice, lentils, &c. Gluten.

CLASSE 64—MATÉRIEL ET PROCÉDÉS DE LA TÉLÉGRAPHIE.

(Palais, Galerie VI.)

Appareils de télégraphie fondés sur la transmission de la lumière, du son, etc.

Matériel de la télégraphie électrique: supports, conducteurs, tendeurs, etc.; piles électriques pour la télégraphie; appareils manipulateurs. Sonneries et signaux électriques. Objets accessoires des services télégraphiques: parafoudres, commutateurs, papiers préparés pour télégraphes imprimants et transmissions autographiques. Matériel spécial de la télégraphie sous-marine.

CLASSE 65—MATÉRIEL ET PROCÉDÉS DU GÉNIE CIVIL, DES TRAVAUX PUBLICS ET DE L'ARCHITECTURE.

(Palais, Galerie VI.)

Matériaux de construction: roches, bois, métaux; pierres d'ornement; chaux, mortiers, ciments, pierres artificielles et bétons; tuiles, briques, carreaux; ardoises, cartons et feutres, pour couvertures. Matériel et produits des procédés employés pour la conservation des bois. Appareils et instruments pour l'essai des matériaux de construction.

Matériel des travaux de terrassement; excavateurs. Appareils des chantiers de construction. Outillages et procédés de l'appareilleur, du tailleur de pierres, du maçon, du charpentier, du serrurier, du menuisier, du vitrier, du plombier, du peintre en bâtiments, etc.

Serrurerie fine; serrures, cadenas; grilles, balcons, rampes d'escalier, etc.

Matériel et engins des travaux de fondations: sonnettes, pilotis, pieux à vis; pompes, appareils pneumatiques; dragues, etc. Matériel des travaux hydrauliques, des ports de mer, des canaux, des rivières.

Matériel et appareils servant aux distributions d'eau et de gaz. Matériel de l'entretien des routes, des plantations et des promenades.

Modèles, plans et dessins de travaux publics: ponts, viaducs, aqueducs, égouts, ponts-canaux, etc.; phares; monuments publics de destination spéciale; constructions civiles; hôtels et maisons à louer; cités ouvrières, etc.

CLASSE 66—MATÉRIEL DE LA NAVIGATION ET DU SAUVETAGE.

(Palais, Galerie VI.; Parc.)

Dessins et modèles de cales, bassins de radoub, docks flottants, etc.

Dessins et modèles des bâtiments de tous genres usités pour la navigation fluviale et maritime. Types et modèles des systèmes de construction adoptés dans la marine. Appareils employés dans la navigation.

Canots et embarcations.

Matériel du grément des navires. Pavillons et signaux.

Bouées, balises, etc.

Matériel et exercices de natation, de plongée et de sauvetage; flotteurs, ceintures de natation, etc. Cloches à plongeur; nautilus, scaphandres, etc. Bateaux sous-marins. Matériel du sauvetage maritime, porte-amares, bateaux dits life-boats, etc.

GROUPE VII.

Aliments (frais ou conservés) à divers degrés de préparation.

CLASSE 67—CÉRÉALES ET AUTRES PRODUITS FARINEUX COMESTIBLES, AVEC LEURS DÉRIVÉS.

(Palais, Galerie VII.)

Froments, seigle, orge, riz, maïs, millet et autres céréales en grains et en farines.

Grains mondés et gruaux.

Fécules de pommes de terre, de riz, de lentilles, etc.

Tapioca, sago, arrow-root, cassava, and other fecula. Compound farinaceous products, &c.

Italian pastes, semolina, vermicelli, macaroni.

Alimentary preparations as substitutes for bread, home-made paste, &c.

CLASS 68—BREAD AND PASTRY.

(Exhibition Building, Gallery VII.)

Various kinds of bread with or without yeast. Fancy bread and bread in shapes. Compressed bread for travelling, military campaigns, &c. Navy biscuits.

Pastry of various kinds peculiar to each country. Gingerbread and dry cakes capable of being preserved.

CLASS 69—FATTY SUBSTANCES USED AS FOOD ; MILK AND EGGS.

(Exhibition Building, Gallery VII.)

Fatty substances and oils good for food.

Fresh and preserved milk. Fresh and salt butter. Cheese.

Eggs of all kinds.

CLASS 70—MEAT AND FISH.

(Exhibition Building, Gallery VII.)

Fresh and salt meat of all kinds. Meats preserved by various processes. Meat and soup cakes. Hams and prepared meats.

Poultry and game.

Fresh fish. Salt fish, fish in barrels : cod, herrings, &c. Fish preserved in oil : sardines, tunny, &c.

Crustacea and shell-fish : lobsters, shrimps, oysters ; potted oysters, anchovies, &c.

CLASS 71—VEGETABLES AND FRUIT.

(Exhibition Building, Gallery VII.)

Tubers : potatoes, &c. Dry farinaceous vegetables : beans, lentils, &c. Green vegetables for cooking : cabbages, &c. Vegetable roots : carrots, turnips, &c. Vegetables used for flavouring : Onions, garlic, &c. Salads. Cucumbers. Gourds : pumpkins, melons, &c. Vegetables preserved in salt, vinegar, or by acetic fermentation : sour-kront, &c. Vegetables preserved by various methods.

Fresh fruit. Dried and prepared fruits : prunes, figs, raisins, &c. Fruits preserved without sugar.

CLASS 72—CONDIMENTS AND STIMULANTS : SUGAR AND CONFECTIONERY.

(Exhibition Building, Gallery VII.)

Spices : Pepper, cinnamon, allspice, &c. Table salt. Vinegar. Compound condiments and stimulants : mustard, kari, English sauces, &c.

Tea, coffee, and other aromatic beverages. Chicory and sweet acorn coffee.

Chocolate.

Sugar for household purposes : grape sugar, sugar of milk, &c.

Confectionery : sugar plums, bonbons, nougats, angelica, aniseed, &c. Jellies and preserves. Dried and preserved fruits, cedrats, citrons, oranges, pineapples. Fruits preserved in brandy. Syrups and liqueurs.

CLASS 73—FERMENTED DRINKS.

(Exhibition Building, Gallery VII.)

Vin ordinaire, white and red. Sweet wines and still wines. Sparkling wines. Cider, perry, and other beverages made from fruits.

Beer and other beverages made from cereals. Fermented drinks made from vegetable sap, from milk and sweet substances of all kinds.

Brandies and alcohols. Spirits : gin, rum, tafia, kirsch, &c.

Gluten. Tapioca, sago, arrow-root, cassave et autres féculs. Produits farineux mixtes, etc.

Pâtes dites d'Italie, semoules, vermicelles, macaronis.

Préparations alimentaires propres à remplacer le pain : nouilles, bouillies, pâtes de fabrication domestique, etc.

CLASSE 68—PRODUITS DE LA BOULANGERIE ET DE LA PÂTISSERIE.

(Palais, Galerie VII.)

Pains divers, avec ou sans levain. Pains de fantaisie et pains façonnés. Pains comprimés pour voyages, campagnes militaires, etc. Biscuits de mer.

Produits divers de pâtisserie propres à chaque nation. Pains d'épice et gâteaux secs susceptibles de se conserver.

CLASSE 69—CORPS GRAS ALIMENTAIRES ; LAITAGES ET ŒUFS.

(Palais, Galerie VII.)

Graisses et huiles comestibles.

Laits frais et conservés. Beurres frais et salés. Fromages.

Œufs de toutes sortes.

CLASSE 70—VIANDES ET POISSONS.

(Palais, Galerie VII.)

Vianades fraîches et salées de toute nature. Viandes conservées par divers procédés. Tablettes de viande et de bouillon. Jambons et préparations de viandes.

Volailles et gibiers.

Poissons frais. Poissons salés, encaqués : morues, harengs, etc. Poissons conservés dans l'huile : sardines, thon mariné, etc.

Crustacés et coquillages : homards, crevettes, huîtres ; conserves d'huîtres, d'anchois, etc.

CLASSE 71—LÉGUMES ET FRUITS.

(Palais, Galerie VII.)

Tubercules : pommes de terre, etc. Légumes farineux secs : haricots, lentilles, etc. Légumes verts à cuire : choux, etc. Légumes racines : carottes, navets, etc. Légumes épicés : oignons, ail, etc. Salades. Cucurbitacées : citrouilles, melons, etc. Légumes conservés par le sel, par le vinaigre ou par la fermentation acétique : choucroute, etc. Légumes conservés par divers procédés.

Fruits à l'état frais. Fruits secs et préparés : prunes, figues, raisins, etc. Fruits conservés sans le secours du sucre.

CLASSE 72—CONDIMENTS ET STIMULANTS ; SUCRES ET PRODUITS DE LA CONFISERIE.

(Palais, Galerie VII.)

Épices : poivres, cannelle, piments, etc. Sel de table. Vinaigres. Condiments et stimulants composés : moutardes, kari, sauces anglaises, etc.

Thés, cafés et boissons aromatiques. Cafés de chicorée et de glands doux.

Chocolata.

Sucres destinés aux usages domestiques. Sucres de raisin, de lait, etc.

Produits divers de la confiserie : dragées, bonbons de sucre, fondants, nougats, angélique, anis, etc. Confitures et gelées. Fruits confits : cedrats, citrons, oranges, ananas. Fruits à l'eau-de-vie. Sirops et liqueurs sucrées.

CLASSE 73—BOISSONS FERMENTÉES.

(Palais, Galerie VII.)

Vins ordinaires, rouges et blancs. Vins de liqueur et vins cuits. Vins mousseux. Cidres, poirés et autres boissons tirées des fruits.

Bières et autres boissons tirés des céréales. Boissons fermentées tirées des sèves végétales, du lait et des matières sucrées de toute nature.

Eaux-de-vie et alcools. Boissons spiritueuses, genièvre, rhum, tafia, kirsch, etc.

GROUP VIII.

Live stock and specimens of agricultural buildings.

CLASS 74—FARM BUILDINGS AND AGRICULTURAL WORKS.

(Park.)

Examp'es of the farm buildings of various countries. Utensils used in the stable, cattle shed, kennel, &c. Apparatus for preparing the food of domestic animals.

Agricultural machinery in motion: steam ploughs, reaping and mowing machines, haymaking machines, threshing machines, &c.

Distilleries, sugar mills, sugar refineries, breweries, works for the preparation of flour, fecula, starch; silkworm nurseries, &c.

Presses for wine, cider, oil, &c.

CLASS 75—HORSES, ASSES, MULES.

(Park.)

Animals exhibited as characteristic specimens of the breeds of each country.

Specimens of stabling.

CLASS 76—BULLS, BUFFALOES, &c.

(Park.)

Animals exhibited as characteristic specimens of the breeds of each country.

Specimens of cattle sheds.

CLASS 77—SHEEP, GOATS.

(Park.)

Animals exhibited as characteristic specimens of the breeds of each country.

Examples of sheep folds, sheep walks, &c.

CLASS 78—PIGS, RABBITS.

(Park.)

Animals exhibited as characteristic specimens of the breeds of each country.

Examples of pig styes, and of premises suitable to the rearing of animals of this class.

CLASS 79—POULTRY.

(Park.)

Animals exhibited as characteristic specimens of the breeds of each country.

Examples of poultry houses, pigeon houses, pheasantries, &c. Apparatus for artificial hatching.

CLASS 80—SPORTING DOGS AND WATCH DOGS.

(Park.)

Shepherds' dogs, watch dogs.

Sporting dogs.

Examples of kennels, and apparatus used in training.

CLASS 81—USEFUL INSECTS.

(Park.)

Bees, silkworms, and other kinds of bombyx. Cochineals, insects producing shell lac, &c.

Apparatus used in the culture of bees and silkworms.

CLASS 82—FISH, CRUSTACEA AND MOLLUSCA.

(Park.)

Aquatic animals of a useful kind, exhibited alive.

Aquariums. Apparatus used in pisciculture, in the culture of shell-fish and in the rearing of leeches.

GROUPE VIII.

Produits vivants et spécimens d'établissements de l'agriculture.

CLASSE 74—SPÉCIMENS D'EXPLOITATIONS RURALES ET D'USINES AGRICOLES.

(Parc.)

Types des bâtiments ruraux des diverses contrées. Matériel des écuries, étables, chenils, etc. Appareils pour préparer la nourriture des animaux.

Machines agricoles en mouvement: charrues à vapeur, moissonneuses, faucheuses, faneuses, batteuses, etc.

Types d'usines agricoles: distilleries, sucreries, raffineries; brasseries; minoteries, féculeries, amidonneries; magnaneries, etc.

Pressoirs pour le vin, le cidre, l'huile, etc.

CLASSE 75—CHEVAUX, ÂNES, MULETS, ETC.

(Parc.)

Animaux présentés comme spécimens caractéristiques de l'art de l'éleveur dans chaque contrée. Types d'écuries.

CLASSE 76—BŒUFS, BUFFLES, ETC.

(Parc.)

Animaux présentés comme spécimens caractéristiques de l'art de l'éleveur dans chaque contrée. Types d'étables.

CLASSE 77—MOUTONS, CHÈVRES.

(Parc.)

Animaux présentés comme spécimens caractéristiques de l'art de l'éleveur dans chaque contrée.

Types de bergeries, de parcs à moutons et d'établissements analogues.

CLASSE 78—PORCS, LAPINS, ETC.

(Parc.)

Animaux présentés comme spécimens caractéristiques de l'art de l'éleveur dans chaque contrée.

Types de porcheries et des établissements propres à l'élevage des animaux de cette classe.

CLASSE 79—OISEAUX DE BASSE-COUR.

(Parc.)

Animaux présentés comme spécimens caractéristiques de l'art de l'éleveur dans chaque contrée.

Types des poulaillers, des pigeonniers, des faisanderies, etc. Appareils d'éclosion artificielle.

CLASSE 80—CHIENS DE CHASSE ET DE GARDE.

(Parc.)

Chiens de berger, chiens de garde.

Chiens de chasse.

Types de chenils et engins de dressage.

CLASSE 81—INSECTES UTILES.

(Parc.)

Abeilles. Vers à soie et bombyx divers. Cochenilles, insectes producteurs de laque, etc.

Matériel de l'élevage des abeilles et des vers à soie.

CLASSE 82—POISSONS, CRUSTACÉS ET MOLLUSQUES.

(Parc.)

Animaux aquatiques utiles, à l'état vivant.

Aquariums. Matériel de l'élevage des poissons, des mollusques et des sangsues.

GROUP IX.**Live produce and specimens of horticultural works.****CLASS 83—HOT-HOUSES AND HORTICULTURAL APPARATUS.**

(Park.)

Gardeners', nurserymen's, and horticulturists' tools. Apparatus for watering, for keeping turf in order, &c.

Large conservatories and apparatus appertaining thereto. Window conservatories. Aquariums for aquatic plants.

Fountains and other means employed for ornamenting gardens.

CLASS 84—FLOWERS AND ORNAMENTAL PLANTS.

(Park.)

Species of plants, and examples of culture exhibiting the characteristic types of the gardens and dwellings of each country.

CLASS 85—VEGETABLES.

(Park.)

Species of vegetables, and examples of culture exhibiting the characteristic types of the kitchen gardens of each country.

CLASS 86—FRUIT TREES.

(Park.)

Species of trees, and examples of culture exhibiting the characteristic types of the orchards of each country.

CLASS 87—SEEDS AND SAPLINGS OF FOREST TREES.

(Park.)

Species of trees and examples of culture, illustrating the processes followed in each country for replanting forests.

CLASS 88—HOT-HOUSE PLANTS.

(Park.)

Illustrations of the mode of culture adopted in various countries, with a view either to pleasure or utility.

GROUP X.**Articles exhibited with the special object of improving the physical and moral condition of the people.****CLASS 89—APPARATUS AND METHODS USED IN THE INSTRUCTION OF CHILDREN.**

(Exhibition Building, Gallery II.; Park.)

Plans and models of school buildings. School fittings and furniture.

Apparatus, instruments, models, wall-maps with the object of facilitating the instruction of children. Elementary collections for imparting ordinary scientific information. Drawing examples. Framed examples and apparatus for teaching singing and music.

Apparatus and pictures for teaching the blind, the deaf and dumb.

School books, atlases, maps, and school pictures.

Periodical publications and journals of education.

Works by students of both sexes.

CLASS 90—LIBRARIES AND APPARATUS USED IN THE INSTRUCTION OF ADULTS, AT HOME, IN THE WORKSHOP, OR IN SCHOOLS AND COLLEGES.

(Exhibition Building, Gallery II.)

Books suitable to form a library for the daily use of

GROUPE IX.**Produits vivants et spécimens d'établissements de l'horticulture.****CLASSE 83—SERRES ET MATÉRIEL DE L'HORTICULTURE.**

(Parc.)

Outils du jardinier, du pépiniériste et de l'horticulteur. Appareils d'arrosement, d'entretien des gazons, etc.

Grandes serres et leurs accessoires. Petites serres d'appartement et de fenêtre. Aquariums pour plantes aquatiques.

Jeux d'eau et autres appareils pour l'ornementation des jardins.

CLASSE 84—FLEURS ET PLANTES D'ORNEMENT.

(Parc.)

Espèces de plantes et spécimens de cultures rappelant les types caractéristiques des jardins et des habitations de chaque contrée.

CLASSE 85—PLANTES POTAGÈRES.

(Parc.)

Espèces de plantes et spécimens de cultures rappelant les types caractéristiques des jardins potagers de chaque contrée.

CLASSE 86—ARBRES FRUITIERS.

(Parc.)

Espèces de plantes et spécimens de cultures rappelant les types caractéristiques des vergers de chaque contrée.

CLASSE 87—GRAINS ET PLANTS D'ESSENCES FORESTIÈRES.

(Parc.)

Espèces de plantes et spécimens de cultures rappelant les procédés de repeuplement des forêts, usités dans chaque pays.

CLASSE 88—PLANTES DE SERRES.

(Parc.)

Spécimens des cultures usités dans divers pays, en vue de l'agrément ou de l'utilité.

GROUPE X.**Objets spécialement exposés en vue d'améliorer la condition physique et morale de la population.****CLASSE 89—MATÉRIEL ET MÉTHODES DE L'ENSEIGNEMENT DES ENFANTS.**

(Palais, Galerie II.; Parc.)

Plans et modèles de bâtiments scolaires. Mobiliers d'école.

Appareils, instruments, modèles, cartes murales conçus en vue de faciliter l'enseignement des enfants. Collections élémentaires propres à l'enseignement des notions scientifiques usuelles. Modèles de dessin. Tableaux et appareils propres à l'enseignement du chant et de la musique.

Appareils et tableaux propres à l'enseignement des aveugles et des sourds-muets.

Livres d'école, atlas, cartes et tableaux.

Publications périodiques et journaux d'éducation.

Travaux d'élèves des deux sexes.

CLASSE 90—BIBLIOTHÈQUES ET MATÉRIEL DE L'ENSEIGNEMENT DONNÉ AUX ADULTES DANS LA FAMILLE, L'ATELIER, LA COMMUNE OU LA CORPORATION.

(Palais, Galerie II.)

Ouvrages propres à former la bibliothèque usuelle

heads of families, foremen, labourers, national school-masters, sailors, naturalists when travelling, &c.

Almanacs, aids to memory, and other useful publications sold by hawkers.

School libraries, village libraries, &c.

Apparatus for illustrating technical lectures, necessary for the exercise of certain handicrafts.

CLASS 91—FURNITURE, CLOTHING AND FOOD FROM ALL SOURCES, REMARKABLE FOR USEFUL QUALITIES COMBINED WITH CHEAPNESS.

(Exhibition Building, Galleries III. IV. VII.)

Methodical collection of objects (enumerated in the 3rd, 4th, and 7th Groups) produced for sale by manufacturers on a large scale, or by skilled workmen, and specially recommended as good and economical purchases for domestic use.

N.B.—The price of each object and the place where it can be purchased are to be specified.

CLASS 92—SPECIMENS OF THE CLOTHING WORN BY THE PEOPLE OF DIFFERENT COUNTRIES.

(Exhibition Building, Gallery IV.)

Methodical collection of the garments of both sexes, suitable to all ages, and to the most characteristic occupations of each country.

N.B.—The clothing to be selected is that which best meets the requirements of the climate, or of the calling; which best exhibits the taste peculiar to each people, and which, under these heads, is most in harmony with the natural usages of each country. These clothes are as far as possible to be exhibited upon lay figures.

CLASS 93—EXAMPLES OF DWELLINGS CHARACTERISED BY CHEAPNESS COMBINED WITH THE CONDITIONS NECESSARY FOR HEALTH AND COMFORT.

(Park.)

Examples of dwellings for families, suitable to the different classes of workmen in each country.

Examples of dwellings suggested for factory hands in cities or in the country.

CLASS 94—ARTICLES OF ALL KINDS MANUFACTURED BY SKILLED WORKMEN.

(Exhibition Building and Park.)

Methodical collection of articles (enumerated in the preceding groups) manufactured for sale or for home use by workmen, working on their own account, either alone, or with the aid of the members of their families, or of an apprentice.

N.B.—Those articles only are to be exhibited in this class which deserve praise for their peculiar quality, for the novelty or perfection of the process of manufacture, or for the useful influence which the manufacture exercises upon the physical and moral condition of the people.

CLASS 95—INSTRUMENTS AND MODES OF WORK, PECULIAR TO SKILLED WORKMEN.

(Exhibition Building, Gallery VI.; Park.)

Instruments and processes (enumerated in the 6th Group) usually employed by the labouring classes working on their own account, or specially adapted to the requirements of the work executed at their own homes, with the aid of the members of their families.

Works executed by hand labour, which exhibit, in addition to peculiar excellence of workmanship, the skill, intelligence, or taste of the workmen.

Works executed by hand labour, which, for various reasons, have best held their ground, up to the present time, against the competition of machinery.

du chef de famille, du chef d'atelier, du cultivateur, de l'instituteur communal, du marin, du naturaliste voyageur, etc.

Almanachs, aide-mémoire et autres publications utiles destinées au colportage.

Matériel des bibliothèques scolaires, communales, etc.

Matériel des cours techniques nécessaires à l'exercice de certaines professions manuelles.

CLASSE 91—MEUBLES, VÊTEMENTS ET ALIMENTS DE TOUTE ORIGINE DISTINGUÉS PAR LES QUALITÉS UTILES, UNIES AU BON MARCHÉ.

(Palais, Galeries III. IV. et VII.)

Collection méthodique d'objets (énumérés au 3^e, 4^e et 7^e Groupe) livrés au commerce par de grandes fabriques ou par des ouvriers chefs de métier et spécialement recommandés au point de vue d'une bonne économie domestique.

NOTA.—Les prix et le lieu de vente doivent être indiqués pour chaque objet.

CLASSE 92—SPÉCIMENS DES COSTUMES POPULAIRES DES DIVERSES CONTRÉES.

(Palais, Galerie IV.)

Collection méthodique de costumes des deux sexes, pour tous les âges et pour les professions les plus caractéristiques de chaque contrée.

NOTA.—On choisira les costumes qui satisfont le mieux aux convenances du climat ou de la profession, aux exigences du goût particulier de chaque peuple, et qui, à ces divers titres, sont le plus en harmonie, dans chaque contrée, avec la tradition nationale. On exposera autant que possible ces costumes sur des mannequins.

CLASSE 93—SPÉCIMENS D'HABITATIONS CARACTÉRISÉES PAR LE BON MARCHÉ UNI AUX CONDITIONS D'HYGIÈNE ET DE BIEN-ÊTRE.

(Parc.)

Types d'habitations de famille, propres aux diverses classes de travailleurs de chaque contrée.

Types d'habitations proposés pour les ouvriers des manufactures urbaines ou rurales.

CLASSE 94—PRODUITS DE TOUTE SORTE FABRIQUÉS PAR DES OUVRIERS CHEFS DE MÉTIER.

(Palais, et Parc.)

Collection méthodique de produits (énumérés aux groupes précédents), fabriqués par des ouvriers travaillant à leur propre compte, soit seuls, soit avec le concours de leur famille ou d'un apprenti, pour le commerce ou pour la consommation domestique.

NOTA.—On admettra seulement dans cette classe les produits qui se recommandent par leur qualité propre, par la nouveauté ou la perfection des procédés de travail, ou par l'influence utile que ce travail exerce sur la condition physique et morale de la population.

CLASSE 95—INSTRUMENTS ET PROCÉDÉS DE TRAVAIL, SPÉCIAUX AUX OUVRIERS CHEFS DE MÉTIER.

(Palais, Galerie VI.; Parc.)

Instruments et procédés (énumérés au 6^e Groupe) employés habituellement par des ouvriers travaillant à leur propre compte, ou spécialement adaptés aux convenances du travail exécuté, en famille, au foyer domestique.

Travaux manuels, où se manifestent, avec un caractère particulier d'excellence, la dextérité, l'intelligence ou le goût de l'ouvrier.

Travaux manuels qui, par diverses causes, ont le mieux résisté, jusqu'à l'époque actuelle, à la concurrence des machines.

REGULATIONS

RESPECTING THE NATURE OF THE REWARDS AND THE COMPOSITION OF THE JURIES APPOINTED TO AWARD THEM.

[APPROVED BY IMPERIAL DECREE, JUNE 9, 1866.]

I.—General Arrangements.

ART. 1.—A sum of eight hundred thousand francs (32,000*l.*) will be given in prizes to be awarded at the Universal Exhibition of 1867.

ART. 2.—An International Jury will be appointed to adjudge the awards.

The International Jury will consist of six hundred members, divided amongst the different nations in accordance with the proportion of space which the products of each occupy in the Exhibition.

ART. 3.—The French members of the International Jury will be appointed by the Imperial Commission.

The foreign members will be named by the respective National Commissions of each country.

All the appointments should be made before December 1, 1866.

The Imperial Commission, after consultation with the various foreign commissions, will distribute the members of the jury among the classes.

ART. 4.—The International Jury should accomplish their work from April 1 to May 14, 1867.

With respect, however, to Classes 52, 67 to 88, and 95,* the labours of the jury will be carried on during the whole time the Exhibition remains open.

* NOTE.—Class 52—Prime movers, boilers, and engines specially adapted to the requirements of the Exhibition; Classes 67 to 73, 7th Group—Food in various states of preparation; Classes 74 to 82, 8th Group—Live stock, and specimens of agricultural buildings; Classes 83 to 88, 9th Group—Live produce and specimens of horticultural works; Class 95—Instruments and modes of work peculiar to skilled workmen.

ART. 5.—The grand distribution of the awards will take place on July 1, 1867.

II.—Special Arrangements relative to the Fine Arts Group.

ART. 6.—The rewards at the disposal of the International Jury for works of art are regulated as follows:—

17 grand prizes, each of the value of	2,000 <i>l.</i> = 80 <i>l.</i>
32 first prizes, each of the value of	800 <i>l.</i> = 32 <i>l.</i>
44 second prizes, each of the value of	500 <i>l.</i> = 20 <i>l.</i>
46 third prizes, each of the value of	400 <i>l.</i> = 16 <i>l.</i>

ART. 7.—The rewards specified in Article 6 are divided as follows amongst the four sections of the fine arts, which correspond with the classes of the first group:—

- 1st Section, Classes 1 and 2 combined:—
8 grand prizes, 15 first prizes, 20 second prizes, 24 third prizes.
2nd Section, Class 3:—4 grand prizes, 8 first prizes, 12 second prizes, 12 third prizes.
3rd Section, Class 4:—3 grand prizes, 6 first prizes, 8 second prizes, 6 third prizes.
4th Section, Class 5:—2 grand prizes, 3 first prizes, 4 second prizes, 4 third prizes.

ART. 8.—The jury for the fine arts group consists of 63 members.

The numerical proportion of the French and foreign members is shewn in the accompanying Table.

The French members of the four sections will be nominated by the Imperial Commission from among the members of the jury of selection. An equal number will be taken from each of the three lists of members of whom

that jury was composed, in accordance with the decision of May 12, 1866.

Exhibitors who undertake the functions of international jurors for works of art will be eligible to compete for the awards.

Each of the four sections will be presided over by one of its members, to be selected by the Imperial Commission. Two of the Presidents will be Frenchmen.

ART. 9.—The four sections may combine to suggest, if necessary, modifications in the appointment of the awards as laid down in Art. 7.

The Imperial Commission will nominate one of its members to act as President of the four sections combined.

III.—*Special Arrangements relative to the Nine Groups of the Products of Agriculture and Industry.*

ART. 10.—The rewards at the disposal of the International Jury for the products of agriculture and industry are regulated as follows:—

Grand prizes and money awards of the total value of 250,000 francs (10,000*l.*);

100 Gold Medals, each of the value of 1,000 francs (40*l.*);

1,000 Silver Medals;

3,000 Bronze Medals;

5,000 Honourable Mentions, at the utmost.

All the medals will be of the same pattern.

ART. 11.—The grand prizes are intended to reward the merit of inventions, or of improvements which have brought about a great amelioration in the quality of the products, or in the processes of manufacture.

ART. 12.—The award of the prizes enumerated in Art. 10 for the nine groups of agriculture and industry will be the result of the successive labours of the juries of classes, the juries of groups, and of a superior council.

ART. 13.—The numerical proportion of the French and foreign members in each of the juries of classes is shown in the annexed Table.

ART. 14.—The meetings of all the juries of classes will commence on April 1. At its first meeting the jury will appoint a President, Vice-President, and Secretary; a Reporter must subsequently be elected before April 10, 1867.

ART. 15.—The juries of classes may appoint associates, or experts, to assist them, selected either from members of the other classes of the International Jury, or from persons who are not jurors: in the latter case the selection of the associate or expert must be approved by the Imperial Commission.

ART. 16.—Exhibitors who undertake the functions of jurors, are thereby rendered ineligible to compete for the rewards.

Exhibitors appointed by the jury of a class as associates or experts are also excluded from the competition, as regards the products of the class on which they are asked to advise.

The Imperial Commission, however, reserves the right to authorise certain exceptions to the rules laid down in the preceding paragraphs.

ART. 17.—The Foreign Commissions are requested to appoint to each jury of a class delegates, whose duty it will be to furnish all necessary information to the jury respecting the exhibitors from their respective countries. The place of residence of these delegates must be communicated to the Imperial Commission before March 20, 1867.

The same functions as respects the French section, will be performed for each jury of a class by the corresponding Committee of Selection.

ART. 18.—From April 1 to 14, each jury of a class of Groups 2, 3, 4, 5, 6, and 10, will examine the products, and without making any distinction of nationality will classify the exhibitors who appear deserving of reward.

The jury of a class will then draw up a list of the exhibitors who, under the rule in Art. 16, are excluded from competition, and will suggest such exceptions as may seem desirable.

Finally, the jury will classify, without distinguishing their nationality, the co-operators, foremen, and workmen, whom it considers worthy of notice, either for services rendered to agriculture or industry, or for having taken a part in the production of remarkable objects in the Exhibition.

The classified lists, signed by the members who have taken a part in this work, are to be delivered by the Reporter at the office of the General Commissioner, on April 14, 1867, at latest.

The class juries for Classes 52 and 95, will only be required to furnish the information necessary to determine the number of awards which it may be proper to adjudge to these classes; and to nominate the associates, who will assist them in the unremitting examination which the nature of the objects exhibited requires.

Should the above-mentioned lists not have been furnished by a jury of a class by April 14, the Imperial Commission will direct its own officers to prepare them.

ART. 19.—From April 1 to 14, the juries of classes for Groups 7, 8, and 9, are to draw up the list of associates whose assistance they desire in the examination of the products during the time the Exhibition will remain open, and will furnish the information required, in order to fix the number of rewards.

ART. 20.—The Presidents and Reporters of the juries of classes will be the members of the juries of groups; in the event of the absence of the Presidents, the Vice-Presidents will take their place.

In addition to these members, a President and two Vice-Presidents will be appointed for each jury of a group.

The distribution of Presidents and Vice-Presidents for the juries of groups amongst the

various countries is shown in the accompanying Table.

In accordance with Art. 3, the French Presidents and Vice-Presidents will be appointed by the Imperial Commission; the foreign Presidents and Vice-Presidents will be nominated by the respective foreign Commissions. The Secretary of, each jury of a group will be appointed by the Imperial Commission.

ART. 21.—From April 15 to 28, the juries of groups for Groups 2, 3, 4, 5, 6, and 10, will examine all claims that come within their province, settle the classified lists drawn up by the juries of classes, and mark opposite to each name the award which they propose to make.

With respect to Classes 52 and 95, the jury of the group will only fix the number of rewards.

In the deliberations which concern each successive class the class jury will be associated with the jury of the group. The members thus associated are entitled to give their votes.

The preliminary labours of the juries of groups should be completed, and the result sent in to the office of the General Commissioner, on April 28, at latest. If the work be not finished by that day, the Imperial Commission will be compelled to take the matter into their own hands.

ART. 22.—From April 15 to 28, the juries of groups for Groups 7, 8, and 9, will settle the lists of associates drawn up by the juries of classes, and send in to the office of the General Commissioner suggestions relative to the number of rewards which it may be desirable to assign to each class.

ART. 23.—The Superior Council of the jury will be composed of the Presidents and Vice-Presidents of the juries of groups.

This council will be presided over by one of the Vice-Presidents of the Imperial Commission.

The Secretary and Assistant Secretary of the Imperial Commission will act as secretaries.

ART. 24.—From April 29 to May 5 the Superior Council will apportion the whole number of rewards amongst the various groups.

If it should appear desirable to increase the number of medals, the council may request the Imperial Commission to deduct for that purpose 50,000 frs. (2,000*l.*), at the most, from the sum set apart for grand prizes and money awards.

The labours of the Superior Council must be completed on May 5, at latest.

ART. 25.—A report upon the exhibition of the products of agriculture and industry will be published under the direction and superintendence of a committee, the members of which will be appointed by the Imperial Commission upon the nomination of the Superior Council.

ART. 26.—From May 6 to 12 the juries of groups specified in Art. 21 will apportion the rewards determined by the Superior Council amongst the classes of their respective groups.

The results of this work are to be sent in to the office of the General Commissioner, on May 14, at latest.

ART. 27.—During the whole time that the Exhibition remains open, the Imperial Commission will appoint fortnightly temporary associates, whose duty it will be to assist the juries of classes in the examination of the products, processes, or implements in Classes 67 to 88, sent to the Exhibition for competition during the corresponding fortnight.

These associates will be selected from the lists settled, as stated in Art. 22.

On the second day of each fortnight, the temporary committee, composed of jurors and associates, will classify the exhibitors, co-operators, and workmen whom it may consider deserving of reward, into four categories, under the heads of first prizes, second prizes, third prizes, honourable mentions, of partial competition. This list may be made public at once.

ART. 28.—From October 15 to 20, the juries of groups for Groups 7, 8, and 9, taking as a basis the return of the prizes and honourable mentions awarded by the temporary committees, in accordance with the preceding Article, will draw up for each class a complete list of exhibitors, co-operators, and workmen, and will adjudge the rewards which have been placed at their disposal by the Superior Council.

The certificate will contain a statement of the prizes and honourable mentions which the various temporary committees may have awarded during the Exhibition to the prize holders.

ART. 29.—The juries of classes for Classes 52 and 95 will submit to the Imperial Commission, on October 20, at latest, proposals relative to the rewards reserved for them by the jury of the group.

The Imperial Commission will come to an immediate decision relative to the rewards proposed.

IV.—*Special Arrangements respecting a New Order of Reward.*

ART. 30.—A distinct order of reward is instituted in favour of the persons, establishments, or localities which, by a special organisation, or special institutions, have developed a spirit of harmony among all those co-operating in the same work, and have provided for the material, moral, and intellectual well-being of the workmen.

These rewards consist of ten prizes, of the total value of 100,000 francs (4,000*l.*), and twenty Honourable Mentions:

One grand prize of 100,000 francs may, in addition, be awarded to the person, establishment, or locality, distinguished under this head by a very exceptional superiority.

ART. 31.—A special jury will judge of the merit specified for this order of reward, and will determine the amount of the prizes and the form in which they will be awarded.

One of the Vice-Presidents of the Imperial Commission will act as President of this jury.

The total number of members, including the President, is fixed at twenty-five.

The number of members which the different countries will contribute to this jury is shewn in the accompanying Table.

The Secretary of the Imperial Commission will act as its Secretary.

ART. 32.—In the event of members not being nominated before December 1, 1866, in conformity with Art. 3, the Imperial Commission will select the foreign jurors from amongst the persons accredited to them by the various governments.

ART. 33.—The number of members of the jury who must be present to form a quorum, is fixed at eighteen. The prizes and honourable mentions will be awarded according to the majority of votes. The grand prize can only be awarded by a majority of two-thirds.

ART. 34.—Applications and documents describing and pointing out for the new order of reward, a person, an establishment, or a locality, must be transmitted before December 1, 1866, to the Councillor of State, General Commissioner.

ART. 35.—The first session of the jury will be held on December 1, 1866, in order that they may lay down the regulations for the guidance of applicants, and commence their investigations.

ART. 36.—In a second and last session, from April 15 to May 14, 1867, the jury will come to a final decision on the apportionment of the prizes, and on the persons, establishments, or localities to which they are to be awarded. These prizes will be distributed at the same time as the other rewards, namely, July 1, 1867.

Done and discussed by the Imperial Commission, June 7, 1866.

E. ROUHER,
Minister of State, Vice-President.

E. B. DE CHANCOURTOIS,
Secretary.

True copy.
F. LE PLAY,
Councillor of State, General Commissioner.

APPORTIONMENT of the Members of the International Jury amongst the different States, based upon the Amounts of Space which these States occupy in the Exhibition.

NAMES OF STATES (Arranged according to the order of the Spaces occupied by them in the Palace)	Juries for the Fine Arts, Agriculture, and Industry (See II. and III.)				Special Jury for the New Order of Reward (See IV.)	Total for each State
	Members of Juries of Classes	Presidents of Juries of Groups	Vice-Presidents of Juries of Groups	Total for each State		
	a	b	c	d	e	f
France	239	5	7	251	9	260
Netherlands	4	—	—	4	*(1)	4
Belgium	23	—	1	24	1 (1)	25
Prussia	27	1	1	29	1	30
Minor States of Ger- many	27	1	1	29	1	30
Austria	27	1	1	29	1	30
Swiss Confederation .	10	—	1	11	1	12
Spain	7	—	—	7	1 (2)	8
Portugal	4	—	—	4	*(2)	4
Greece	4	—	—	4	*(2)	4
Denmark	3	—	—	3	*(3)	3
Sweden and Norway .	8	—	—	8	1 (3)	9
Russia	11	—	1	12	1	13
Italy	20	—	1	21	1 (4)	22
Pontifical States . .	1	—	—	1	*(4)	1
Roumanian Princi- palities	1	—	—	1	*(5)	1
Ottoman Empire . .	5	—	—	5	1 (5)	6
Egypt	1	—	—	1	*(5)	1
Various Asiatic States	2	—	—	2	1	3
Persia	1	—	—	1	*(5)	1
Various African States and Oceana	2	—	—	2	*(5)	2
United States of America	8	—	1	9	1	10
Various American States	5	—	—	5	1	6
Great Britain and Ireland	77	2	3	82	3	85
Totals	517	10	18	545	25	570
Reserved						30
Total						600

* The asterisks with reference numbers indicate the groupings together of countries which have been found necessary in order not to exceed the number (25) for the Jury of the new Order of Reward. The apportionment of a juror to the country most largely represented is only done here for the sake of regularity.



PARIS UNIVERSAL EXHIBITION OF 1867.

PART I.

INTRODUCTION

TO THE CATALOGUE OF

THE BRITISH SECTION.

CONTAINING

A BRIEF ACCOUNT OF THE THREE PREVIOUS INTERNATIONAL EXHIBITIONS;

A GENERAL INTRODUCTION TO THE CATALOGUE OF THE BRITISH SECTION;

STATISTICAL NOTES ON THE INDUSTRIES AND COMMERCE OF THE UNITED KINGDOM.

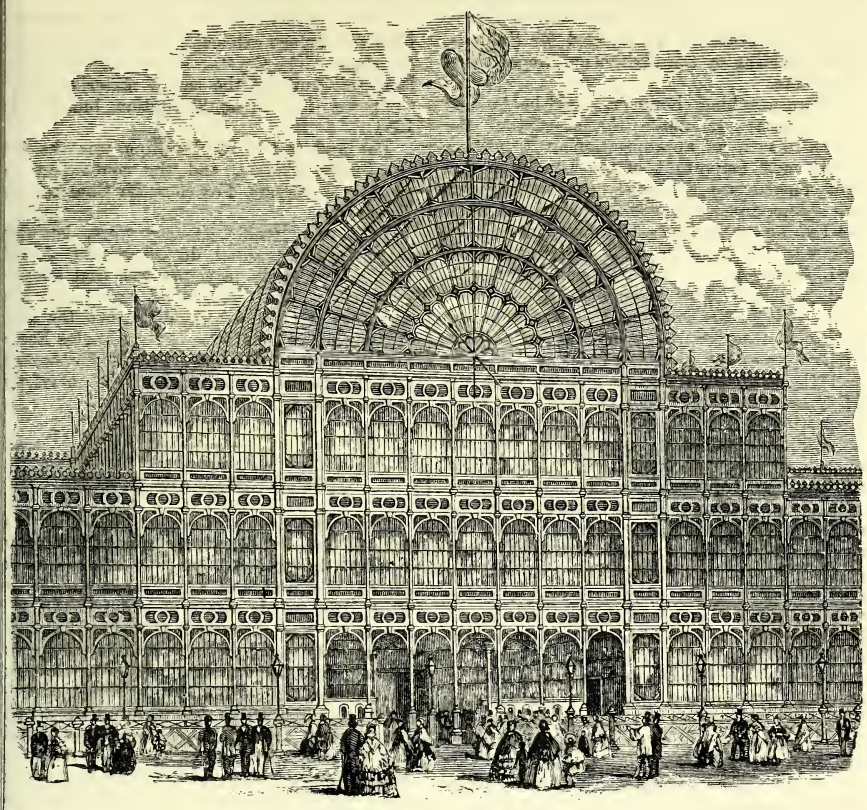
IN ENGLISH, FRENCH, GERMAN, AND ITALIAN.



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LONDON: PRINTED BY
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AND PARLIAMENT STREET



The Great Exhibition of 1851—The Transept.—South View.

STATISTICS OF THE GREAT EXHIBITION OF ALL NATIONS IN 1851, THE PARIS UNIVERSAL EXHIBITION OF 1855, AND THE INTERNATIONAL EXHIBITION OF 1862.

BY WILLIAM MATCHWICK, F.L.S.

THE GREAT EXHIBITION OF ALL NATIONS IN 1851.

THE Exhibition Building, constructed chiefly of glass and iron, was erected in Hyde Park, London, on a spot not much frequented by the public, but exceedingly well-adapted for the required purpose. On the south side of the park, is an open space of considerable dimensions, parallel with and contiguous to the high road which runs to Kensington and Hammer-

smith, and is the great western highway to the metropolis. It is situated about midway between the cavalry barracks at Knightsbridge, and the new entrance to the park, called Queen's Gate, which is some two or three hundred yards east of the old Kensington turnpike. About twenty acres of this spot (originally suggested for such a purpose by the

late Prince Consort) was selected for the proposed building by the Exhibition Royal Commissioners.

Before anything, however, could be done, it was necessary to obtain the consent of the Crown to such an appropriation of a portion of the most important of the London parks. This consent was graciously accorded; but it was accompanied with the condition that when the Exhibition was over, the ground should be restored to its original state, and be rendered again fit for public recreation and enjoyment. And although very strenuous efforts were made to retain the Building, this condition was faithfully observed, and every trace of the Exhibition completely effaced by June 1, 1852; or little more than twenty months from the fixing of the first column on Sept. 25, 1850. Upon the site itself nothing now remains to mark its whereabouts, unless it be two elm trees, carefully protected from injury by iron railings. Both of these trees stood (with others) within the transept, one at the south end, the other at the north. They serve to mark the centre of the building, and (although much injured in after growth by their long and unnatural confinement) afford a tolerable notion of the height and length of the central transept, being trees of mature age, and fair forest specimens of their kind.

Westward of the site, and in a line with it, there is now in course of erection the National Memorial Monument in honour of the late Prince Consort, who was so completely identified with the Great Exhibition of 1851. This monument, when completed, will certainly serve to mark the site of the Great Exhibition, although it is situated some 500 yards

from the eastern extremity of where the building stood. The Crystal Palace, at Sydenham, is mainly built of the actual materials which composed the Great Exhibition building of 1851.

The architect of the Building was the late Sir Joseph Paxton, and the contractors for erecting it Messrs. Fox (now Sir Charles) and Henderson.

Very considerable changes were, however, made in the original design of Sir Joseph Paxton (which in principle was that adopted by him in the erection of the great conservatory at Chatsworth, the seat of the Duke of Devonshire), and it is to Sir Charles Barry, Sir William Cubitt, Mr. Robert Stephenson, and Mr. Brunel, that much of the merit due to the building must be accorded.

DIMENSIONS OF SPACE.

The entire covered space, or total superficial area of the Building, was originally fixed at 800,000 square feet, but was afterwards increased to upwards of a million square feet, or more than twenty acres of ground. Of this space it was estimated that half (500,000 square feet) would be required for the display of the goods, the remaining half being necessary for passages, &c. In allotting this space, the Royal Commissioners laid it down as a principle, that half should be given to Great Britain and her colonies, and half to foreign countries. The following table will, however, show the space originally allotted and that actually occupied:—

	Gross Horizontal Space originally allotted	Space allotted deducting half for Passages	Space actually occupied		
			Net Horizontal Space occupied by Goods	Space occupied by Passages	Total
	Square feet	Square feet	Square feet	Square feet	Square feet
Foreign States	397,800	198,900	131,655	272,121	403,776
Great Britain and Colonies	400,000	200,000	207,059	337,261	544,320
Eastern Refreshment Court	—	—	—	—	12,096
Open Courts and Retiring Rooms	—	—	—	—	6,912
Centre Refreshment Court	—	—	—	—	10,944
Dining and Retiring Rooms	—	—	—	—	6,912
Western Refreshment Court	—	—	—	—	4,032
Open Court and Retiring Rooms	—	—	—	—	8,064
Workshops	—	—	—	—	5,184
Entrances	—	—	—	—	10,368
Offices	—	—	—	—	11,520
Lecture Rooms	—	—	—	—	2,304
Fixed Seats	—	—	—	—	3,456
Unoccupied	—	—	—	—	3,456
Totals	797,800	398,900	338,714	609,382	1,033,344

At the east and west ends of the building a space of 30,712 square feet was enclosed, and applied to the purposes of the exhibition, which is not included in the above.

NUMBER OF EXHIBITORS.

The total number of Exhibitors was 13,937, of whom 7,381 belonged to Great Britain and her colonies, and 6,556 to foreign countries. Some countries, however, as India, Turkey, Egypt, and Tunis, and individuals who joined together to send contributions, are enumerated as one exhibitor; so that including these, the total number of exhibitors may be estimated at between 15,000 and 16,000.

The following return gives the number of Exhibitors in each country, and the space occupied:—

	Number of Exhibitors	Space Occupied
		Square feet
Great Britain	6,861	503,424
British Colonies	520	40,896
Total	7,381	544,320
America (United States)	499	44,352
Austria	731	48,384
Belgium	506	37,440
China	30	5,184
Denmark	39	1,152
Egypt	—	2,304
France	1,710	119,808
Prussia and Zollverein States	1,402	77,184
Greece	36	576
Germany (North)	134	2,880
Netherlands	113	4,608
Persia	12	576
Portugal	157	3,456
Rome	52	3,456
Russia	263	13,824
Sardinia	95	4,032
Spain	286	4,032
Sweden and Norway	117	1,728
Switzerland	263	12,096
Tunis	—	4,608
Turkey	—	6,912
Tuscany	99	4,608
South American States	12	576
Total of Foreign States	6,556	403,776
Total	13,937	1,033,344

COST OF THE EXHIBITION.

From the analysis of expenditure published by the Royal Commissioners, it appears that the payments on account of the building and fittings were 170,000*l*. Taking the net superficial area of covered space at a million square feet, this would give a cost of about 3*s*. 5*d*. the square foot.

The following were the principal heads of expenditure:—

Personal services, including the staff of the royal commission, executive committee, professional assistance, and jurors, amounted to	£ 71,975
Police	19,648

General office expenses, such as rent, furniture, stationery, printing, postage, advertising, &c.	£ 8,869
General maintenance of Exhibition, including coals for boilers, lighting, water, watering roads, implements and tools, repairs, accidents, &c. . . .	4,878
Jury Department—Cost of medals, medal cases, certificates, photographs, presentation reports, trials of agricultural and other machinery	6,917
Law expenses, interest on advances, and contingencies	10,508

Total £122,795

making the total cost of the Exhibition, including the building, about 292,795*l*.

It should, however, be remembered that the contract with Messrs. Fox and Henderson did not include the absolute sale of the building to the Royal Commissioners, being for *use and waste only*, the building itself remaining the property of the contractors. Had it been otherwise, the total actual cost of the Exhibition must have been increased by at least 100,000*l*.

ADMISSION OF VISITORS.

The Exhibition was opened to the public on Thursday, May 1, and finally closed on Saturday, October 11, having thus remained open 141 days. On the following Monday and Tuesday, however, the exhibitors and their friends were admitted free, and on Wednesday, October 15, the final ceremony of closing took place in the presence of the exhibitors, jurors, foreign and local commissioners, representatives of committees and others.

The public were admitted to the Exhibition by season tickets, and money payments at the doors. Gentlemen's season tickets were three guineas, those for a lady two guineas each. After July 31 these rates were reduced to 1*l*. 10*s*. and 1*l*. respectively. On the day of the opening no money was taken, season tickets only being admitted. For the first two days after the opening, the price of admission was 1*l*. From the 5th to the 24th of May (inclusive) the admission was 5*s*. From the 26th of May to the 2nd of August (inclusive), the admission was as follows:—On Mondays, Tuesdays, Wednesdays, and Thursdays, 1*s*.; Fridays, 2*s*. 6*d*., Saturdays, 5*s*.; and from the last-mentioned date to the close of the Exhibition no other change was made, with the exception of reducing the Saturday fee to 2*s*. 6*d*.

At first, the doors were opened for admission at ten in the morning, and closed at six in the evening, with the exception of Saturdays, when the doors were not opened till twelve o'clock. On Monday, August 18, the doors were opened at nine o'clock, instead of ten, and this continued to the end of the Exhibition. Some modifications were subsequently made in the hour of closing, according to the

season. In the height of the summer, the Exhibition was kept open till seven o'clock; and as the season advanced, the bells were rung at six o'clock, and later, ten minutes before sunset.

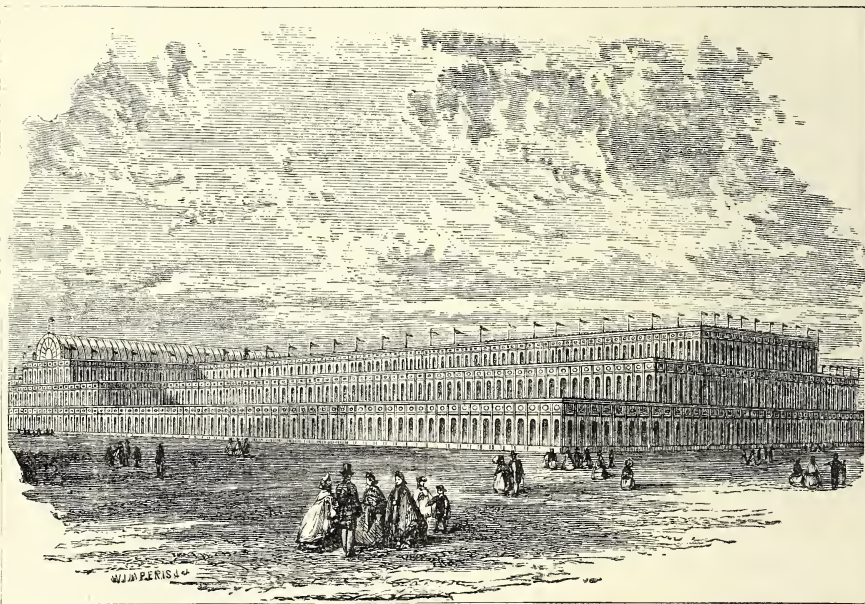
RECEIPTS.

The gross or net receipts from all sources were as follows:—

	£
Subscriptions	67,897
Catalogue contract	3,200
Refreshment contract	5,500
Season tickets	67,514
Taken at the doors	356,278
Retiring rooms, umbrellas, medals struck in the building, and weather charts	4,580
Interest and premium on Exchequer Bills	898
Sundries	233
Total	£506,100

The number of season tickets sold was 25,605, of which 13,494 were for gentlemen, and 12,111 for ladies. Of this number 135 gentlemen's tickets and 184 ladies' tickets were sold after July 31, at the reduced rate of 30s. and 20s. respectively.

The average daily receipts at the doors (exclusive of the opening day, when no money was taken) amounted to 2,548*l.* for the whole period of the Exhibition. During the first three weeks, when the admission fee was 5*s.*, the daily average was 2,546*l.*, a very close approximation to that just stated. The largest amount taken in one day was on Wednesday, October 8 (a shilling day), when 5,283*l.* was received at the doors; and the smallest, on Monday, May 26, amounting to 920*l.* This was the first day on which the admission was reduced to 1*s.*; and the comparatively small amount taken is due to apprehension on the part of the public, that so low a fee would bring such an enormous crowd, as to render a visit to the Exhibition not only full of discomfort, but fraught with danger.



Great Exhibition of 1851.

The following table shows the total receipts at the doors at different rates of payment:—

Number of Days	Entrance Fee		Amount taken		Daily Average	
	£	s. d.	£	s. d.	£	s. d.
2	1	0 0	1,042	0 0	521	0 0
28		5 0	61,347	7 0	2,191	0 0
30		2 6	72,447	11 0	2,414	17 0
80		1 0	221,971	3 0	2,774	12 0
140			356,808	1 0		

The loss on light gold, defaced, spurious, and foreign coin was considerable, amounting to upwards of 530*l.*, which, deducted from the above total, explains an apparent discrepancy between the amount previously given, and that in the above table.

NUMBER OF VISITORS.

The total number of visitors for the whole period of the Exhibition was 6,039,195. During 141 days, 773,766 entered with season tickets.

On two days when the entrance was 1*l*., 1,042 persons paid. On 28 days, when the entrance fee was 5*s*., 245,389 paid. On 30 days, when the entrance fee was 2*s*. 6*d*., 579,579 paid; and on 80 days, when the admission was 1*s*., 4,439,419 paid. Striking a daily average on these numbers, the results are as follows:—

Season tickets . . . 5,473 daily

	£	s.	d.		
Paying	1	0	0	entrance	521
"	0	5	0	"	8,763
"	0	2	6	"	19,319
"	0	1	0	"	55,493

Every facility was given by the Royal Commissioners and Executive Committee for the free admission of all persons whose attendance in the building was absolutely necessary, but no free list was ever actually in operation. All in the employment of the royal commission, police, military, foreign commissioners, certain exhibitors, exhibitors' agents and attendants, members of the metropolitan and provincial press, the jurors, and many others not specified, were admitted gratuitously throughout the whole period of the exhibition, adding considerably to the number always present in the building. The greater number of these came in before the doors were opened, and were not counted by the police; and, as a rule, if known to have business in the building, they were not reckoned at whatever hour they came in.

The greatest number of persons actually within the building at any one time, occurred on Tuesday, October 7 (four days before the closing). The total number of visitors on that day was 109,915, the greatest number on any one day throughout the Exhibition; and at two o'clock on the day mentioned, it was computed that nearly a hundred thousand people were in the building. On Monday, October 6, the total number was 107,815; on Wednesday, October 8, it was 109,760; and on Thursday, October 9, 90,813. The four days named were the last shilling days of the Exhibition, the total being 418,303, or an average of 104,576 for each of those days.

Table showing the total Number of Visitors daily:—

Date	Day of Week	Entrance Fee	Total Number of Visitors, including Season Tickets
May	1 Thursday .	(Day of opening)	25,000
"	2 Friday . .	£1 0 0	16,560
"	3 Saturday .	£1 0 0	16,482
"	5 Monday . .	5 <i>s</i> . 0 <i>d</i> .	19,952
"	6 Tuesday . .	5 0	20,334
"	7 Wednesday	5 0	21,663
"	8 Thursday .	5 0	22,572

Date	Day of the Week	Entrance Fee	Total Number of Visitors, including Season Tickets
May	9 Friday . .	5 <i>s</i> . 0 <i>d</i> .	21,798
"	10 Saturday .	5 0	21,875
"	12 Monday . .	5 0	20,890
"	13 Tuesday . .	5 0	23,418
"	14 Wednesday	5 0	22,759
"	15 Thursday .	5 0	24,204
"	16 Friday . .	5 0	24,726
"	17 Saturday .	5 0	24,389
"	19 Monday . .	5 0	23,880
"	20 Tuesday . .	5 0	27,943
"	21 Wednesday	5 0	28,549
"	22 Thursday .	5 0	29,690
"	23 Friday . .	5 0	30,882
"	24 Saturday .	5 0	34,812
"	26 Monday . .	1 0	23,402
"	27 Tuesday . .	1 0	31,957
"	28 Wednesday	1 0	42,384
"	29 Thursday .	1 0	52,518
"	30 Friday . .	2 6	34,716
"	31 Saturday .	5 0	19,083
June	2 Monday . .	1 0	46,581
"	3 Tuesday . .	1 0	52,302
"	4 Wednesday	1 0	54,016
"	5 Thursday . .	1 0	55,337
"	6 Friday . .	2 6	26,134
"	7 Saturday . .	5 0	12,986
"	9 Monday . .	1 0	54,204
"	10 Tuesday . .	1 0	49,697
"	11 Wednesday	1 0	47,754
"	12 Thursday .	1 0	48,318
"	13 Friday . .	2 6	24,520
"	14 Saturday .	5 0	14,102
"	16 Monday . .	1 0	63,769
"	17 Tuesday . .	1 0	68,155
"	18 Wednesday	1 0	62,663
"	19 Thursday .	1 0	63,863
"	20 Friday . .	2 6	31,834
"	21 Saturday .	5 0	12,732
"	23 Monday . .	1 0	67,555
"	24 Tuesday . .	1 0	68,394
"	25 Wednesday	1 0	58,445
"	26 Thursday .	1 0	57,781
"	27 Friday . .	2 6	29,033
"	28 Saturday .	5 0	11,501
"	30 Monday . .	1 0	52,869
July	1 Tuesday . .	1 0	51,069
"	2 Wednesday	1 0	49,399
"	3 Thursday . .	1 0	55,638
"	4 Friday . .	2 6	26,007
"	5 Saturday . .	5 0	11,747
"	7 Monday . .	1 0	61,670
"	8 Tuesday . .	1 0	65,962
"	9 Wednesday	1 0	58,055
"	10 Thursday .	1 0	61,492
"	11 Friday . .	2 6	30,067
"	12 Saturday .	5 0	11,181
"	14 Monday . .	1 0	62,694
"	15 Tuesday . .	1 0	74,122
"	16 Wednesday	1 0	60,626

Date	Day of the Week	Entrance Fee	Total Number of Visitors, including Season Tickets	Date	Day of the Week	Entrance Fee	Total Number of Visitors, including Season Tickets
July 17	Thursday .	1s. 0d.	63,746	Sept. 24	Wednesday	1s. 0d.	54,540
" 18	Friday . .	2 6	35,338	" 25	Thursday .	1 0	57,161
" 19	Saturday .	5 0	9,327	" 26	Friday . .	2 6	23,694
" 21	Monday .	1 0	70,640	" 27	Saturday .	2 6	20,236
" 22	Tuesday .	1 0	68,161	" 29	Monday .	1 0	68,542
" 23	Wednesday	1 0	50,599	" 30	Tuesday .	1 0	69,346
" 24	Thursday .	1 0	47,458	Oct. 1	Wednesday	1 0	59,071
" 25	Friday . .	2 6	26,882	" 2	Thursday .	1 0	64,298
" 26	Saturday .	5 0	10,399	" 3	Friday . .	2 0	32,051
" 28	Monday .	1 0	67,170	" 4	Saturday .	2 6	30,640
" 29	Tuesday .	1 0	69,036	" 6	Monday .	1 0	107,815
" 30	Wednesday	1 0	58,382	" 7	Tuesday .	1 0	109,915
" 31	Thursday .	1 0	57,309	" 8	Wednesday	1 0	109,960
Aug. 1	Friday . .	2 6	26,897	" 9	Thursday .	1 0	90,813
" 2	Saturday .	5 0	9,725	" 10	Friday . .	2 6	46,913
" 4	Monday .	1 0	62,631	" 11	Saturday .	2 6	53,061
" 5	Tuesday .	1 0	68,069			Total .	6,039,195
" 6	Wednesday	1 0	59,139				
" 7	Thursday .	1 0	60,118				
" 8	Friday . .	2 6	18,466				
" 9	Saturday .	2 6	18,348				
" 11	Monday .	1 0	58,634				
" 12	Tuesday .	1 0	58,554				
" 13	Wednesday	1 0	47,817				
" 14	Thursday .	1 0	49,452				
" 15	Friday . .	2 6	20,861				
" 16	Saturday .	2 6	16,741				
" 18	Monday .	1 0	51,525				
" 19	Tuesday .	1 0	57,079				
" 20	Wednesday	1 0	44,567				
" 21	Thursday .	1 0	50,482				
" 22	Friday . .	2 6	17,978				
" 23	Saturday .	2 6	14,908				
" 25	Monday .	1 0	49,021				
" 26	Tuesday .	1 0	51,311				
" 27	Wednesday	1 0	38,228				
" 28	Thursday .	1 0	44,245				
" 29	Friday . .	2 6	15,590				
" 30	Saturday .	2 6	13,052				
Sept. 1	Monday .	1 0	50,234				
" 2	Tuesday .	1 0	49,866				
" 3	Wednesday	1 0	41,917				
" 4	Thursday .	1 0	44,209				
" 5	Friday . .	2 6	15,726				
" 6	Saturday .	2 6	12,672				
" 8	Monday .	1 0	56,852				
" 9	Tuesday .	1 0	58,015				
" 10	Wednesday	1 0	50,016				
" 11	Thursday .	1 0	54,827				
" 12	Friday . .	2 6	17,959				
" 13	Saturday .	2 6	16,273				
" 15	Monday .	1 0	60,497				
" 16	Tuesday .	1 0	62,622				
" 17	Wednesday	1 0	53,757				
" 18	Thursday .	1 0	58,600				
" 19	Friday . .	2 6	21,488				
" 20	Saturday .	2 6	17,366				
" 22	Monday .	1 0	59,364				
" 23	Tuesday .	1 0	60,382				

JURIES.

The actual number of jurors for the Exhibition was 318—161 British and 157 Foreign; and the numbers appointed for each country were as follows:—

Austria	17
Belgium	14
Denmark	1
Egypt	2
France	38
Great Britain . .	161
Greece	1
Germany (North) .	2
Holland	2
Italy	6
Portugal	2
Russia	7
Sicily	1
Spain	4
Switzerland . . .	7
Sweden	1
Turkey	5
United States . .	24
Zollverein	23

Total 318

Attached to the juries were associate jurors to the number of 100, specially appointed by the juries to assist them in their decisions, but without the power of voting. Seventy of the jurors and associate jurors were also exhibitors. The following table shows the number of jurors and associate jurors in each class.

The thirty classes here enumerated were afterwards practically increased to thirty-four,

by the addition of one sub-class to Class 5, and three sub-classes to Class 10, thus making the number of acting juries thirty-four also.

Class		No. of Jurors	No. of Associate Jurors
RAW MATERIALS			
1	Mining, quarrying, metallurgical operations, and mineral products	8	1
2	Chemical and pharmaceutical processes, and products generally	8	8
3	Substances used as food	6	none
4	Vegetable and animal substances chiefly used in manufactures	8	1
MACHINERY			
5	Machines for direct use, including carriages, and railway and naval mechanism	18	2
6	Manufacturing machines and tools	12	6
7	Civil engineering, architectural, and building contrivances	8	none
8	Naval architecture, and military engineering, ordnance, armour and accoutrements	8	7
9	Agricultural and horticultural machines and implements	15	1
10	Philosophical instruments and processes; musical, horological, and surgical instruments	32	7
MANUFACTURES			
11	Cotton	10	3
12	Woolen and worsted	12	9
13	Silk and velvet	10	none
14	Manufactures from flax and hemp	10	none
15	Mixed fabrics	12	2
16	Leather, skins, furs, feathers, and hair	10	1
17	Paper and stationery, printing and bookbinding	8	1
18	Woven, spun, felted, and laid fabrics, when shown as specimens of printing and dyeing	10	2
19	Tapestry, including carpets, lace, embroidery, and fancy works	10	none
20	Clothing, for personal or domestic use	8	8
21	Cutlery and edge tools	6	4
22	Iron and general hardware	12	7
23	Working in precious metals, jewellery, &c.	10	5
24	Glass	8	12
25	Ceramic manufacture, porcelain, earthenware, &c.	8	2
26	Furniture, upholstery, paper-hangings, papier-maché, and japanned goods	12	4
27	Manufactures in mineral substances used for building or decoration	8	3
28	Manufactures from animal and vegetable substances, not woven, or felted, or included in other classes	8	1
29	Miscellaneous manufactures and small wares	8	3
FINE ARTS			
30	Sculpture, models, and plastic art	15	none
Total		318	100

AWARDS.

Two medals in bronze were awarded by the juries, the council medal, and the prize medal. A certificate of honourable mention was also

given as a third award. The council medal was almost exclusively reserved for remarkable inventions, and was not considered applicable to those instances where excellence of execution was the only merit to be rewarded.

In a few instances pecuniary gifts were added to the honorary distinction of a medal or honourable mention, that is, where artisans had incurred considerable expense in producing an article of interest, without the possibility of being remunerated for the outlay.

The total number of awards made by the juries were:—

Council Medals	171
Prize Medals	2,954
Honourable Mentions	2,123

Total 5,248

Return showing the number of awards which each country gained:—

No. of Exhibitors	Country	Council Medal	Prize Medal	Hon. Mention	Total
6,861	Great Britain (including Guernsey and Jersey)	78	1,302	773	2,153
520	British Colonies	1	130	157	288
499	America (United States)	5	102	53	160
731	Austria	4	114	126	244
506	Belgium	2	114	92	208
30	China	—	5	8	13
39	Denmark	—	8	9	17
—	Egypt	1	3	7	11
1,710	France (including Algiers)	56	619	370	1,045
36	Greece	—	—	6	6
134	Germany (North)	—	9	11	20
113	Netherlands	1	16	15	32
12	Persia	—	—	1	1
157	Portugal	—	14	35	49
52	Rome	1	7	9	17
263	Russia	3	60	65	128
95	Sardinia	—	22	21	43
12	South American States	—	1	2	3
286	Spain	1	43	41	85
117	Sweden and Norway	—	10	9	19
263	Switzerland	2	70	43	115
—	Tunis	1	3	7	11
—	Turkey	1	19	9	29
99	Tuscany	2	30	25	57
1,402	Zollverein States of Germany	12	253	229	494
13,937	Totals	171	2,954	2,123	5,248

SUMMARY OF AWARDS.

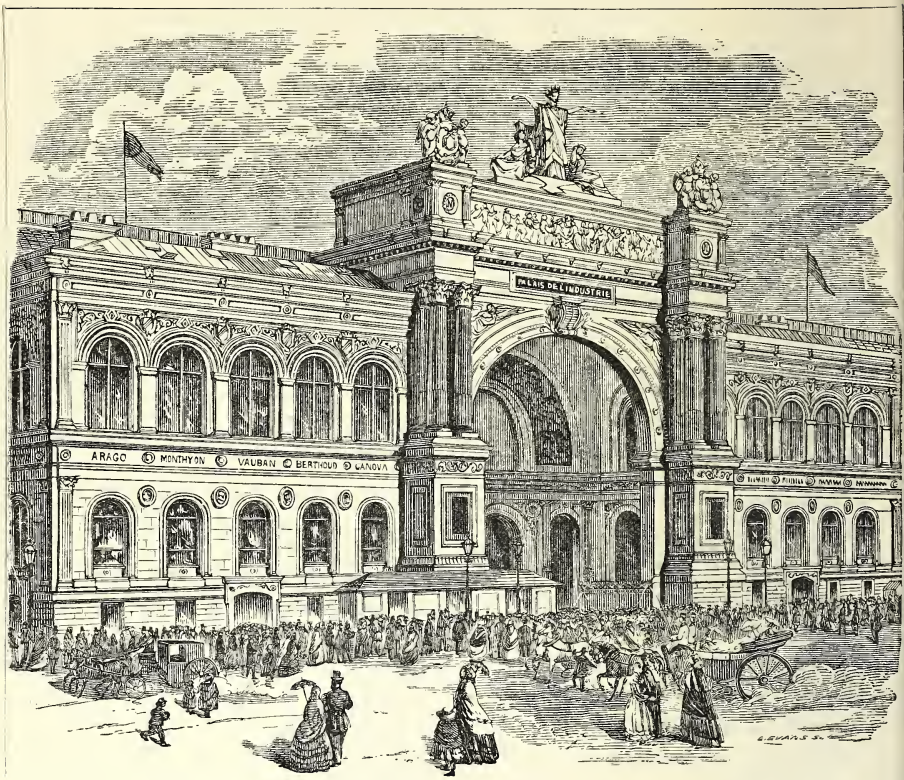
Great Britain and Colonies.

Council Medals	79
Prize Medals	1,432
Honourable Mentions	930
	2,441

Foreign Countries.

Council Medals	92
Prize Medals	1,522
Honourable Mentions	1,193
	2,807

Total 5,248



Principal Entrance to the Palais de l'Industrie.

THE PARIS UNIVERSAL EXHIBITION OF 1855.

It is somewhat difficult to designate the exact localities and relative positions of the various Buildings which were erected for the Paris Universal Exhibition of 1855. The main or principal edifice was an extensive rectangular building, nearly square in shape, situated in the main avenue of the Champs Elysées, and well known as the Palais de l'Industrie. This building was solidly constructed, and intended to be permanent. In it were exhibited the products of the twenty-seven industrial classes chiefly. South of this principal building, and connected with it by covered galleries and passages, was a long and narrow edifice called the Annexe or Galerie du Quai, which extended along and was in close proximity to the north bank of the river Seine. This Annexe, 4,000 feet long, was mainly devoted to the exhibition of machinery. The third building, intended for the three classes forming the division of Fine Arts (Palais des Beaux Arts), was situated at some considerable distance from the two others, be-

ing at the south-west or river end of the Avenue Montaigne. It was entirely separated from the two edifices mentioned; connecting passages even being impracticable by reason of distance and locality.

Between the Palais de l'Industrie and the Annexe, was a circular building, known as the Panorama, or Panorama Rotunda, in which were displayed the crown jewels of France, and a great variety of tapestries, carpets, &c. Outside, and surrounding this Rotunda, was a considerable space partly covered and partly open, in which carriages and vehicles of all kinds, and agricultural machinery and implements were exhibited. Ample space was also provided here for refreshments. The only structure remaining to be named, was the Chinese Exhibition, attached to the Fine Arts Palace, but in no other way connected with it. Indeed, this Chinese Exhibition was never considered a portion of the international display, and is only named here for the sake of completeness, and

because the space it occupied was really a part (though separate) of the Fine Arts building.

Thus there were three separate and distinct buildings, exclusive of the Panorama Rotunda, which served for the French International Exhibition of 1855—the Palace of Industry, or main central building, the Machinery Annexe, and the Fine Arts Palace. As regards the last named building, the French Government had contemplated the possibility of devoting a portion of the new palace of the Louvre to the exhibition of the Works of Art contributed to the Exhibition; and there is no doubt such an intention would have been carried out, but for the impossibility of doing so without great hindrance to the urgent and important works, both of interior and exterior, then going on there.

Although the preparation and erection of these buildings for the Paris Universal Exhibition of 1855 was set on foot and mainly carried out with the capital of a commercial company organised in Paris, yet it was the French Government who really had the whole and sole management of the Exhibition, taking all risk in the enterprise, and guaranteeing to the company a certain per centage of profit on their outlay. The Emperor accordingly appointed Imperial Commissioners, with Prince Napoleon at their head, for the management of the Exhibition; and although the company had certain privileges and the power of making some regulations, it was virtually superseded, and the entire control undertaken by the Government.

Messieurs Viel and Desjardins were the architectural authors of the main building; and Messrs. York and Company were the Contractors for carrying out the works.

All the buildings were of a temporary character, except the main central one; and all, with that exception, were consequently cleared away within a short time after the close of the Exhibition. The main structure (Palais de l'Industrie) in the Champs Elysées was retained, and still exists. It is the property of the Government, and is used for exhibiting works of art, and for other kindred purposes.

DIMENSIONS OF SPACE.

The total horizontal space occupied by all the countries exhibiting in the Industrial divisions, including passages and all entrances, as well as offices and reception rooms, was 152,052 square mètres, or about 1,770,000 English superficial feet. In the Fine Arts building the total space occupied by the works of art in the classes of painting, engraving, lithography, sculpture; and architecture, was 17,639 square mètres, or 15,603 square mètres superficial vertical space for paintings, engravings, &c., and 2,036 horizontal square mètres for works in sculpture, making altogether a total of 169,691 square mètres (about 1,866,000 square feet), as the space actually occupied by exhibitors in the

various classes throughout the Exhibition, and by passages, offices, and all else that was provided for the general accommodation of the public. In this estimation, the entrances, offices, and floor space unoccupied by works of art, in the Fine Arts building, are not included; nor are the dimensions of such space given in the report of the Imperial Commission.

The division of the exhibiting space in the main building, or Palais de l'Industrie, Panorama Rotunda, and Machinery Annexe, was as follows:—

	Sq. Metres
France	55,669
Foreign Countries	46,097
Passages, &c.	17,021
Total	118,786

In the division of Fine Arts, France is stated to have occupied 2,400 square mètres of wall space for paintings, &c.; Great Britain, 938 square mètres; the remainder of the space being divided among ten other countries. In reality, the space occupied by the United Kingdom, for Works of Art, was somewhere about 14,184 square feet.

The following table shows the amount of space occupied by each country in the Industrial classes, exclusive of passages, &c:—

	Sq. Metres
France	54,077
Algeria and French Colonies	1,592
America (U. States)	971
America (South)	178
Austria	5,767
Bavaria	548
Belgium	4,948
German Confederate States	846
Denmark	386
Egypt	328
Spain	703
Papal States	208
Great Britain	14,723
British Colonies	2,659
Greece	189
Hanover	333
Luxemburg	92
Mexico	93
Norway	302
Netherlands	1,039
Portugal	420
Prussia	5,127
Sardinia	706
Saxony	566
Sweden	755
Switzerland	1,572
Tuscany	594
Tunis	198
Turkey	453
Wurtemberg	1,137
Other Countries	256
	101,766
Add for passages, &c.	17,020
Total	118,786

SUMMARY.

	Sq. Metres
France and Colonies . . .	55,669
Gt. Britain and Colonies . . .	17,372
Other Countries . . .	28 725
Passages . . .	17,020

Total . 118,786

As near as can be ascertained, the total horizontal space occupied by Great Britain and her Colonies at the Paris Universal Exhibition of 1855, inside the various buildings, was 183,000 square feet, of which 14,184 square feet were devoted to works in the three classes of Fine Arts.

Although the actual space occupied by each country in the division of Fine Arts is not given in the report of the Imperial Commission, the number of exhibitors in each of the three classes is recorded.

The following tabular statement gives this information:—

Country	Number of Exhibitors			Total
	Painting, Engraving, Litho- graphy	Sculpture	Architec- ture	
France . . .	804	177	91	1072
America (U. S.) . .	11	2	—	13
America (South) . .	2	—	—	2
Austria . . .	66	38	4	108
Baden & Nassau . .	11	1	—	12
Bavaria . . .	35	3	1	39
Belgium . . .	124	17	1	142
Denmark . . .	30	2	—	32
Two Sicilies . . .	3	1	—	4
Spain . . .	27	5	16	58
Papal States . . .	10	6	—	16
Great Britain . . .	212	35	50	297
Greece . . .	3	9	—	12
Hanover . . .	2	—	—	2
Hesse . . .	4	1	—	5
Norway . . .	12	—	—	12
Netherlands . . .	73	2	3	78
Portugal . . .	16	3	—	19
Prussia . . .	94	15	2	111
Sardinia . . .	15	1	1	17
Saxony . . .	13	1	—	14
Sweden . . .	18	4	2	24
Switzerland . . .	43	4	—	47
Tuscany . . .	7	3	—	10
Hanse Towns . . .	16	1	—	17
Wurtemberg . . .	8	—	—	8
Other Countries . .	2	1	1	4
TOTALS . .	1671	332	172	2175

In the report presented to Parliament on the British division of the Exhibition, the number of English artists exhibiting in the Fine Arts section, and the number of their works, is thus given:—

Works in oil . . .	234	contributed by 99 artists
Water-colours . . .	145	" 52 "
Engravings and Lithographs } . . .	197	" 62 "
Architectural works . . . }	127	" 51 "

Statues . . .	51	} contributed by 35 artists
Busts and Bas-reliefs . . .	24	
Total . . .	778 works	299 artists

And the estimated value of the British works sent was as follows:—

	£
Oil Paintings . . .	96,130
Water-Colours . . .	15,653
Engravings and Lithographs . . .	1,676
Architectural works . . .	5,765
Sculpture . . .	18,336

Total . £137,560

Showing an average value of 411*l.* for each of the works in oil; about 108*l.* for each of those in water-colours; and about 244*l.* for each work in sculpture. Engravings, lithographs, and architectural drawings are not included in this calculation, for obvious reasons.

In addition to the above statistical facts relative to the horizontal or superficial space of the Paris Exhibition, it may, perhaps, be interesting to state the amount of vertical surface occupied by exhibits, and the linear or running measurement of the whole twenty-seven Industrial classes. These calculations are extracted from the report of the Imperial Commission.

	Linear Measure- ment Metres	Vertical or Wall Surface Sq. metres
France, Algeria, and Colonies . . . }	18,949	33,421
Austria . . .	2,335	3,512
Belgium . . .	1,509	2,350
Great Britain and Colonies . . . }	4,404	6,373
Prussia . . .	1,828	2,796
Sweden . . .	464	442
Switzerland . . .	409	584
Remaining countries . . .	3,871	4,131
Total . . .	33,769	53,609

NUMBER OF EXHIBITORS.

The total number of Exhibitors at the Paris Universal Exhibition of 1855, was 23,954. Of this number 21,779 were exhibitors in the twenty-seven Industrial classes, and 2,175 were exhibitors in the three classes belonging to the Fine Arts.

The number of Exhibitors belonging to each country in the Industrial classes was as follows:—

	Exhibitors
France . . .	10,003
Algeria . . .	728
French colonies . . .	183
	10,914
America (United States) . . .	131
America (South) . . .	38
Austria . . .	1,298

	Exhibitors
Baden	88
Bavaria	172
Belgium	687
Denmark	90
Spain	569
Papal States	72
Great Britain	1,589
Canada	348
Australia and Van Die- men's Land	405
India	599
British Guiana	95
Smaller colonies	233
	<hr/> 3,269
Greece	131
Hesse	88
Mexico	107
Nassau	59
Norway	121
Netherlands	411
Portugal	443
Prussia	1,319
Sardinia	204
Saxony	96
Sweden	418
Switzerland	408
Tuscany	197
Hanse Towns	89
Wurtemberg	207
Other countries, viz.:—Anhalt- Dessau and Coethen, 15; Bruns- wick, 16; German Confedera- tion, 20; Egypt, 6; Frankfort- on-the-Maine, 24; Hanover, 18; Hawaii, 5; Luxemburg, 23; Saxony (5 duchies), 23; Tunis, 1; Turkey, 2	<hr/> 153
Total	<hr/> 21,779

The number of Exhibitors from each country in the division of Fine Arts has been already stated.

Fifty-three foreign states and twenty-two foreign colonies were represented in the Exhibition, without including France, the three provinces of Algeria, and eight French colonies.

Dividing the total number of Exhibitors, including those in the Fine Arts classes, into French and foreign, the numbers will be thus:—

French Empire	11,986
Foreign States	11,968
Total	<hr/> 23,954

The extreme nearness of the two numbers making this total cannot fail to be remarked as a very extraordinary fact.

COST OF THE EXHIBITION.

According to the report of the Imperial Commission on the Paris Universal Exhibition of 1855, the cost of the Exhibition was as follows:—

	Francs	Sterling
Industrial Division	8,961,620 =	£358,464. 16s.
Fine Arts Division	2,302,900 =	£92,116. 0s.
Total	11,264,520 =	£450,580. 16s.

This sum does not include the cost of the main edifice, or Palais de l'Industrie, afterwards purchased by the French government; consequently, the total expenditure on account of the Exhibition must be taken at nearly as much again, or even more, and in all probability amounted to upwards of a million sterling.

Taking, therefore, the cost of the Palais de l'Industrie at 500,000*l.*, and of the various other buildings, as given in the report of the Imperial Commission, viz.—

	£
The Annexe	104,080
Junction Gallery of Panorama Rotunda	24,280
Fine Arts Building	42,068
Supplementary Constructions	4,232

it will approach correctness to state that the Buildings alone cost 674,660*l.*

Reckoning the total amount of horizontal space to have been 169,691 square mètres, or about 1,866,000 square feet, and the total cost of the buildings, irrespective of the purchase of the Palais de l'Industrie, to have been as above stated, it follows that the cost per square foot was nearly 7*s.* 3*d.*

In order that Great Britain should be properly and adequately represented at the Paris Universal Exhibition of 1855, it was necessary that the British government should afford the requisite assistance. Estimates were accordingly prepared and submitted to Parliament, and the result was that a sum of £50,000 was voted to be administered under the responsibility of the Board of Trade.

The net expenditure under this grant was 39,259*l.*, being upwards of 10,000*l.* less than the Parliamentary vote; exemplifying the rigid economy that was exercised in the disbursement of the money.

The total payments of the British Division under the various heads of service were as follows:

	£
Preliminary arrangements	3,171
Freight, carriage of goods, Customs charges, &c.	7,588
Office management in Paris	3,282
Completion and decoration of British Division	3,985
Maintenance, Cleaning, and Watching	3,446
Removing and Warehousing Packing Cases	943
Printing, Advertising, Postage, Stationery, &c.	1,383
Securing proper representation of Raw Products and Scientific Apparatus	2,067

Division of Fine Arts . . .	£6,477
Jurors and their Reports . .	4,165
Contingencies	2,752
Total	£39,259

A chief item in the expenses connected with the British division of Fine Arts, was that of insuring the various works contributed against all accidents by rail and sea, both going and returning, and also against damage by fire while in the building and during transit. The rates varied from 2*l.* 10*s.* to 3*l.* per cent, and the amount paid to the underwriters at Lloyd's and elsewhere, reached the sum of 2,715*l.*

ADMISSION OF VISITORS.

The Paris Universal Exhibition of 1855 was opened to the public by the Emperor in person on Tuesday, the 15th of May; but at that date the general arrangements were so incomplete and backward, that only the Fine Arts building and a part of the Industrial divisions were sufficiently forward to be fit for inspection. The Machinery Annexe, the Panorama Rotunda, and the outside buildings were not opened till a much later period.* It was originally intended to have opened the Exhibition on May 1, and an Imperial Decree was published announcing that day; but the postponement was inevitable by reason of so much incompleteness in nearly all the divisions. On Thursday, November 15, the closing ceremony took place in the presence of the Emperor, with great success and punctuality. On Friday, November 30, the Exhibition was finally closed, though the business of clearance really began the day after the closing ceremony, and continued daily without interruption.

The total number of days that the Exhibition remained open, that is, from the 15th of May, to the 30th of November (inclusive), was exactly 200, Sundays included.

The admission was by season tickets, and payments at the doors. On one day, Sunday, the 27th of May, the whole Exhibition was thrown open gratuitously to the public.

Season tickets were 50 francs (2*l.*) for the Industrial division, and the same price for that of Fine Arts; so that a season ticket for the entire Exhibition cost 100 francs, or 4*l.* Season tickets, with limited privileges, were also issued at 25 francs each (1*l.*). The rates of admission at the doors were 5 francs (4*s.*); 2 francs (1*s.* 8*d.*); 1 franc (10*d.*); and 20 centimes (2*d.*). On Mondays, Tuesdays, Wednesdays, Thursdays, and Saturdays the price of admission was 1 franc; on Fridays, 5 francs, and on Sundays, 20 centimes (2*d.*). The same rates of admission applied also to the Fine Arts Building. After the 1st of August, the Friday admission was reduced to 2 francs; and after

the 11th of the same month, Railway Companies and others, were allowed to organise exhibition trains, the passengers by which (on Sunday and Monday in each week) not only travelled at a reduction of 40 per cent. on the ordinary fares, but had a free admission to the Industrial and Fine Arts Divisions, or might make two visits to either. And during the month of August large numbers of working classes, from all parts of France, were admitted by paying 20 centimes only. All soldiers and military pensioners were privileged to daily free admission, in certain numbers, between the hours of nine and eleven o'clock. Pupils from the military schools were also allowed free entry under easy regulations; and the members of the press, both French and foreign, enjoyed the same privilege. On the day of the opening ceremony, season tickets only were admitted; as was also the case when Queen Victoria visited the Exhibition on the 24th of August.

RECEIPTS.

The total receipts reached the sum of 3,202,485 francs, or 128,099*l.* 8*s.* sterling.

The number of season tickets sold was 4,843, of which 4,663 were for the Industrial portions of the Exhibition, and 180 for the Fine Arts; producing together the sum of 200,450 francs, or 8,018*l.* sterling. Deducting the day of the opening, when season ticket holders only were admitted, and the day on which the Exhibition was thrown freely open, the average daily receipts amounted to 16,174 francs, or 646*l.* 19*s.* 2*d.* sterling. The receipts for the Industrial division were 2,566,195 francs (102,647*l.* 16*s.*) and for the Fine Arts; 636,290 francs (25,451*l.* 12*s.*)—averaging daily, for the Industrial division, 12,960 francs (518*l.* 8*s.*); and for the Fine Arts, 3,213 francs and a half (128*l.* 10*s.* 5*d.*).

NUMBER OF VISITORS.

The total number of visitors to the Paris Universal Exhibition of 1855, was 5,162,330. Of this total, 4,180,117 entered the various Industrial divisions, and 982,213 visited the Fine Arts. In the total number, however, of those who passed into the Fine Arts, 46,612 persons are included who went into the Chinese Exhibition before alluded to. The estimated number of visits made by holders of season tickets to the Industrial division, was 94,000, and to the Fine Arts, 3,800. On 5-franc days the total of those who entered the Industrial divisions, was 22,747, and Fine Arts 11,179—together, 33,926. On 2-franc days, the total numbers were: to the Industrial division, 73,816; and Fine Arts, 21,872—together 95,688. The total number of visitors on 1-franc days was 2,103,535, of which 1,683,798 entered

* Agricultural machines, June 5; Annexe, June 10
Panorama and Junction Gallery, June 30.

the Industrial, and 419,737 the Fine Arts division. The total number of visitors for the days when the entrance was only 20 centimes (*2d.*) amounted to 2,196,795; of which 1,752,518 visited the Industrial, and 444,277 the Fine Arts divisions. To these numbers should be added 26,322 persons who visited the Chinese collection on the days when the admission to see it was half-a-franc.

The approximate or estimated number of those who entered with Exhibitors' cards was 445,000, of whom 420,000 passed into the Industrial, and 25,000 in the Fine Arts division. Of soldiers and pensioners who availed themselves of the privilege of visiting the Industrial sections of the Exhibition without payment, between the hours of 9 and 11, the total number was 80,118. And the number of students from the military schools, who exercised the privilege of free admission to the whole Exhibition, was 797. The total number of visits paid by those who came by the privileged excursion trains on Sundays and Mondays, was 24,455. It must be borne in mind, that these numbers are approximate of the number of visits paid to the Exhibition by the persons in the various categories, and that they do not represent separate individuals. For instance, if a pensioner went to the Exhibition ten times, he was of course counted as ten persons, and so on.

On Sunday, May 27, when the entire Exhibition was thrown open to the public without payment, the total number of visitors was 105,022, of whom 80,118 passed into the Industrial, and 24,904 into the Fine Arts division.

The greatest number of visitors in any one day throughout the period of the Exhibition, occurred on Sunday, the 9th of September, when 123,017 persons are recorded to have entered. Very large numbers occurred on each of the 24 Sundays from the 3rd of June to the 11th of November, the average being 89,223 for each Sunday; and on each of eight of those days, the number considerably exceeded 100,000.

It is stated that nearly 160,000 foreigners visited Paris during the Exhibition; upwards of 40,000 being British subjects; or more than two-thirds of the number of all foreigners that visited London in the Exhibition year of 1851. And according to the French Police returns, the various departments of France sent more than 350,000 visitors to Paris during the Exhibition of 1855.

JURORS.

The classification of the Paris Exhibition of 1855 was as follows:—

Class

1. Mining and Metallurgical Products.
2. Forestry, Hunting, Shooting, and Fishing, and Products obtained without cultivation.

Class

3. Agriculture.
4. Machinery in general, as applied to Industry.
5. Special Machinery and Apparatus for Railways and other modes of transport.
6. Special Machinery and Apparatus for Workshops.
7. Special Machinery and Apparatus for the manufacture of Woven Fabrics.
8. Arts relating to exact Sciences, and to Instruction.
9. Manufactures relating to the economical production and employment of Heat, Light, and Electricity.
10. Chemical Manufactures, Dyeing and Printing, Paper, Leather, Skins, India-rubber, &c.
11. Preparation and Preservation of Alimentary Substances.
12. Hygiene, Pharmacy, Surgery, and Medicine.
13. Naval and Military Arts.
14. Civil Engineering and Building.
15. Steel, and its products.
16. General Metalwork.
17. Goldsmiths' Work, Jewellery, and Bronzes.
18. Glass and Pottery.
19. Cotton Manufactures.
20. Woollen and Worsted Manufactures.
21. Silk Manufactures.
22. Flax and Hemp Manufactures.
23. Hosiery, Carpets, Embroidery, Lace of every kind, Gold and Silver Fringe, &c.
24. Furniture and Decoration.
25. Articles of Clothing; Objects of Fashion and Fancy.
26. Drawing and Modelling applied to Industry, Letter-press and Copper-plate Printing, Photography.
27. Manufacture of Musical Instruments.
28. Painting, Engraving, and Lithography.
29. Sculpture and Die-sinking.
30. Architecture.

The three last Classes constituted the Division of Fine Arts.

One other Class was added after the opening of the Exhibition, namely, Class 31, Products of Domestic Economy, consisting of articles of remarkable utility and cheapness, and mostly selected from the goods exhibited in the other classes.

The total number of jurors was 398—208 being assigned to France, and 190 to foreign countries, in the following proportions:—

Class		Total Number of Jurors
1	Austria, 2; Belgium, 2; British Colonies, 1; Great Britain, 2; France, 5; Prussia, 1	13
2	Great Britain, 1; France, 8; Portugal, 1; Tuscany, 1; United States, 1	12
3	Austria, 2; Baden, 1; Belgium, 2; Denmark, 1; France, 9; Great Britain, 3; Spain, 1; Sweden and Norway, 1	20

Class		Total Number of Jurors
4	France, 6; Great Britain, 1; Portugal, 1; Spain, 1	9
5	Belgium, 2; France, 5; Great Britain, 2; Prussia, 1	10
6	Austria, 1; France, 7; Great Britain, 1; Prussia, 1; Sardinia, 1; Sweden and Norway, 1; Tuscany, 1	13
7	Austria, 1; France, 5; Great Britain, 1; Spain, 1; United States, 1	9
8	Bavaria, 1; France, 6; Great Britain, 3; Prussia, 1; Switzerland, 2	13
9	Austria, 1; France, 5; Great Britain, 2; Prussia, 1	9
10	Austria, 1; Belgium, 1; France, 9; Great Britain, 2; Hesse, 1; Portugal, 1; Prussia, 2; Switzerland, 1	18
11	Austria, 2; France, 4; Great Britain, 1; Prussia, 1; Wurtemberg, 1	9
12	France, 7; Great Britain, 3; Netherlands, 1	11
13	Belgium, 2; France, 7; Great Britain, 2; Greece, 1; Prussia, 1	13
14	France, 2; Great Britain, 2; Turkey and Egypt, 1	12
15	Austria, 1; France, 6; Great Britain, 2; Prussia, 2; Sardinia, 1; Sweden and Norway, 1	13
16	Austria, 1; Belgium, 1; France, 7; Great Britain, 2; Hanover, 1; Wurtemberg, 1	13
17	France, 5; Great Britain, 1; Netherlands, 1; Prussia, 2; Turkey and Egypt, 1	10
18	Austria, 1; Belgium, 1; France, 7; Great Britain, 3; Netherlands, 1; Prussia, 2	15
19	Austria, 2; Belgium, 1; France, 6; Great Britain, 2; Prussia, 1; Switzerland, 2	14
20	Austria, 3; Belgium, 1; France, 9; Great Britain, 2; Prussia, 3; Saxony, 1; Wurtemberg, 1	20
21	Austria, 3; France, 7; Great Britain, 2; Prussia, 1; Switzerland, 1	14
22	Austria, 1; Belgium, 1; France, 5; Great Britain, 2; Prussia, 1; Wurtemberg, 1	11
23	Austria, 1; Belgium, 2; France, 9; Frankfort-on-the-Maine, 1; Great Britain, 2; Prussia, 1; Spain, 1; Switzerland, 1	18
24	Austria, 1; Bavaria, 1; France, 6; Great Britain, 2; Hanse Towns, 1; Mexico, 1	12
25	Austria, 2; France, 6; Great Britain, 1; Switzerland, 1	10
26	Austria, 1; France, 5; Great Britain, 2; Prussia, 1	9
27	Austria, 1; Belgium, 1; France, 4; Great Britain, 1	7
28	Austria, 1; Baden, 1; Bavaria, 1; Belgium, 3; France, 16; Great Britain, 4; Netherlands, 1; Prussia, 2; Spain, 1; Sweden and Norway, 1; Switzerland, 1	32
29	Austria, 2; Belgium, 1; France, 11; Great Britain, 3; Papal States, 1; Prussia, 1	19
30	France, 7; Great Britain, 2; Prussia, 1	10
	Total	398

In Class 31, the members, 19 in number, were mostly selected from the other Jurors.

AWARDS.

By an Imperial Decree, dated the 10th of

May, 1855, the recompenses to be awarded by the International Juries were as follows:—

For the twenty-seven Industrial classes—1st, a Gold Medal (Médaille d'Honneur); 2nd, a Silver Medal; 3rd, a Bronze Medal; and 4th, a Certificate of Honourable Mention.

For the Division of Fine Arts—1st, a First Class Gold Medal; 2nd, a Second Class Gold Medal; 3rd, a Third Class Gold Medal; and 4th, a Certificate of Honourable Mention.

And, in addition to the above, the special award of the Great Medal of Honour.

Money awards were also made in particular instances. The Decoration of the Legion of Honour was largely distributed by the Emperor to those who took part in the Exhibition, and may almost be considered an additional award to those already mentioned.

According to the Report of the Imperial Commission the value of each of the gold medals was as follows:—The Great Gold Medal of Honour, 5,000 francs (200*l.*); First-class Gold Medal, 750 francs (30*l.*); Second-class Gold Medal, 650 francs (26*l.*); Third-class Gold Medal, 550 francs (22*l.*).

By a later Decree than that before alluded to, the denomination of the medals awarded to the Industrial divisions was changed thus: the Gold Medal was called the Great Medal of Honour; the Silver Medal, the First-class Medal; and the Medal in Bronze, the Second-class Medal.

No tabulated statement appears in the Report of the Imperial Commission, showing the number of awards in each class, and to each country. Such information is, however, given in the Reports of the Juries; but in a way that is not available for the purposes of this paper. This is to be regretted. The statistical information conveyed by such a table would, doubtless, be valuable and interesting.

In the British Division, the Jury awards for the Industrial Classes were as follows:—

Class	Number of Exhibitors	Awards					Total
		Great Medal of Honour	Medal of Honour	First-class Medal	Second-class Medal	Honourable Mention	
1	97	—	1	19	19	16	55
2	7	—	—	1	—	—	1
3	32	—	5	10	13	8	36
4	40	—	1	4	11	8	24
5	89	—	—	6	9	20	35
6	54	1	1	10	12	5	29
7	36	1	1	11	10	3	26
8	74	—	2	5	7	7	21
9	52	1	—	6	10	7	24
10	128	1	3	28	27	21	80
11	19	—	—	2	7	3	12
12	43	1	—	8	11	8	28
13	70	1	—	17	3	9	30
14	29	2	—	8	8	4	22
15	72	1	3	18	23	11	56
16	66	—	—	13	22	15	50
17	32	—	3	8	4	2	17
18	40	1	—	9	16	1	27
19	62	2	1	13	17	4	37
20	77	1	2	18	11	8	40

Class	Number of Exhibitors	Awards					Total
		Great Medal of Honour	Medal of Honour	First-class Medal	Second-class Medal	Honourable Mention	
21	27	—	1	10	7	4	22
22	60	1	1	3	10	5	20
23	77	—	3	18	23	10	54
24	51	—	2	6	13	10	31
25	111	1	—	9	32	25	67
26	86	—	1	33	23	15	72
27	18	—	—	3	—	1	4
31 {	Included in the above	—	1	5	5	—	11
Totals	1,549	15	32	301	353	230	931

The above does not include the awards to the British Colonies, which were as stated hereafter.

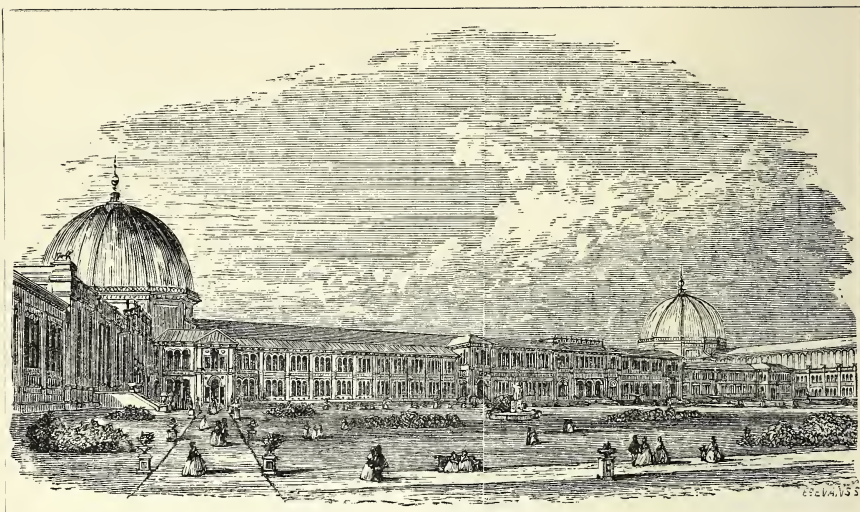
Awards were also made to those British co-operators and workmen (colonies included) who, although not Exhibitors, had been connected with the invention, production, and arrangement of the articles and substances sent for Exhibition. One Great Medal of Honour, one Medal of Honour, 27 First-class Medals, 56 Second-class Medals, and 42 Honourable Mention were thus given—making a total ad-

dition of 130 Jury Awards to those enumerated above.

Awards to British Colonies.

	Great Medal of Honour	Medal of Honour	First-class Medal	Second-class Medal	Honourable Mention	Total
India	—	—	12	37	42	91
Canada	1	—	12	31	48	92
New South Wales	—	1	8	8	21	38
Victoria	—	—	3	4	4	11
Van Diemen's Land	—	—	6	7	7	20
Ceylon	—	—	2	8	5	15
Jamaica	—	—	3	5	9	17
British Guiana	—	—	2	2	7	11
Mauritius	—	—	1	3	10	14
Barbadoes	—	—	—	1	—	1
Bahamas	—	—	—	—	1	1
Cape of Good Hope	—	—	2	3	—	5
Total Awards	1	1	51	109	154	316

In the three Fine Arts' Classes, the total number of awards made to British Exhibitors was 64, namely: 2 Great Medals of Honour; 9 First-class Medals; 8 Second-class Medals, 11 Third-class Medals; and 34 Certificates of Honourable Mention.



View of Building from the Horticultural Gardens.

THE INTERNATIONAL EXHIBITION OF 1862.

THE various Buildings which constituted the International Exhibition of 1862, were erected on a piece of ground immediately adjoining the south end of the Royal Horticultural Gardens at South Kensington, obtained for that purpose from the Royal Commissioners of the Great Exhibition of 1851. This land was a portion of the estates which the Royal Commissioners had acquired by purchase, out of the surplus funds of the Exhibition, and a parliamentary grant.

The total quantity of land so purchased in the immediate neighbourhood of this site (indeed, adjoining to it) was 86 acres, and the cost, 280,000*l.*, or an average of 3,250*l.* an acre. It was originally thought that 300,000*l.* would be sufficient to purchase all the land desired. The Royal Commissioners agreed to devote 150,000*l.* of their surplus (about 170,000*l.*), and Parliament supplied the same amount, to secure a block of cheap land in the immediate neighbourhood of the metropolis, and for erecting upon it educational institutions for the furtherance of science, art, and manufactures.

The estates purchased were the following:—the Gore House Estate, situated at Kensington Gore, nearly opposite the site of the Great Exhibition of 1851, comprising 21 acres, and costing 60,000*l.*; the De Villars' Estate, purchased from the trustees of the Baron de Villars, amounting to 48 acres, and costing 153,500*l.* Adjoining these two estates were

17 acres, the property of the Earl of Harrington, which were bought for about 66,500*l.*

In 1858, Parliament dissolved the partnership which existed between itself and the Royal Commissioners; and consequently the whole of the purchased land became vested in the Commissioners solely, with the exception of 12 acres, on which the buildings of the Department of Science and Art, better known as the South Kensington Museum, now stand, the price of which (60,000*l.*) the Government agreed to deduct from the vote of 150,000*l.* which the Commissioners had thus to repay.

The main buildings of the International Exhibition of 1862 covered about 17 acres of ground, exclusive of the two annexes on the east and west of the Horticultural Gardens, which may be estimated at 7 acres more; so that the whole range of buildings covered an area of upwards of 24 acres. In shape the ground was nearly rectangular, measuring about 1,200 feet from east to west, and 560 feet from north to south. The principal frontage was in the Cromwell-road; whilst the western entrance was in Prince Albert's-road, and the eastern in the Exhibition-road.

Although the greater part of the structure of 1862 was solid and of a substantial character, and built with an evident intention of permanence, yet it was doomed to a destructive removal, and the site on which it stood to be again restored to its previous condition. Very

great efforts were made to save the building, especially the long range of picture galleries. Parliament, however, purchased the ground from the Royal Commissioners for national purposes (the vote of 120,000*l.* for 17½ acres, was passed June 13, 1863), but refused to secure the buildings, which were accordingly removed, and the ground entirely cleared. The site is still unoccupied, and nothing remains of the Exhibition except the refreshment-rooms and galleries over the southern arcade of the Horticultural Gardens. These galleries are at present occupied by the Department of Science and Art, by an arrangement with the Board of Works.

The Building, or rather Buildings, were designed by the late Captain Fowke, R.E., architect and engineer to the Government Department of Science and Art. The contractors for erecting it were Mr. Kelk and Messrs. Lucas Brothers.

DIMENSIONS OF SPACE.

The total area of covered space amounted to 1,291,800 square feet, of which 147,700 square feet were taken up by refreshment-rooms, offices, entrances, and staircases, leaving 1,144,100 square feet available for exhibition purposes. This space was obtained in the different buildings of the Exhibition in the following proportions:—

MAIN BUILDING.

Ground Floor.

	Square Feet
Nave and transept	178,450
Glass courts	178,880
Under galleries	203,160
South Horticultural arcade	32,700
Under south picture galleries	49,300
Offices, lobbies, &c.	27,600
Cromwell-road entrance and stair-case	17,300

Gallery Floor.

Galleries	208,360
Refreshment rooms	27,800

Picture Galleries.

South gallery and staircase	63,900
East and west galleries	27,000

Annexes.

Western, or Machinery	182,500
Eastern (covered space)	94,850

Total . 1,291,800

The total area roofed in was 988,000 square feet.

In dividing this space the Royal Commissioners observed the rule now generally recognised, of giving half to the country holding the exhibition, and the other half to foreign states.

The following table shows the amount of horizontal space originally allotted, and that actually occupied by each country, for the thirty-six industrial classes.

Country	Originally Allotted	Actually occupied by Goods
	Square Feet	Square Feet
United Kingdom and colonies	592,152	229,759
Africa	1,000	158
America (United States)	30,000	3,242
America (South)	5,000	1,468
Austria	33,000	15,494
Belgium	44,000	12,473
China	5,000	534
Denmark	5,650	2,163
Egypt	2,500	746
France and colonies	147,300	54,481
Germany (Northern)	4,950	2,069
Hanse Towns	4,000	532
Zollverein States	76,500	33,802
Mecklenburg	2,500	2,288
Greece	800	242
Holland	6,950	2,912
Hayti	—	146
Italy	15,400	7,905
Japan	2,000	300
Liberia	—	95
Madagascar	—	34
Portugal	4,500	1,772
Rome	3,000	1,334
Russia	14,300	4,648
Spain	5,400	2,563
Sweden and Norway	8,250	4,556
Switzerland	13,200	4,029
Turkey	5,000	1,374
Total	1,032,352	391,146

To this total must be added 662,061 square feet devoted to passages; 406,576 of which were occupied by Great Britain and her colonies, and 255,485 by foreign countries.

The amount of vertical or wall space occupied is thus given:—

	Superficial Feet
United Kingdom and colonies	146,229
France and colonies	9,222
Belgium	13,176
Austria	13,195
Zollverein States	22,559
Turkey and Egypt	6,568
Denmark	5,059
Mecklenburg	2,866
Holland and colonies	4,281
Norway and Sweden	3,061
Portugal	1,955
Russia	5,871
Spain	2,726
Switzerland	3,085
Remaining countries	44,707

Total vertical space . 284,670

Of this total, 146,229 superficial feet of vertical space were occupied by Great Britain and her colonies, and 138,441 superficial feet by the foreign countries exhibiting.

To the above allotments of horizontal space must be added the amount occupied by each country in the four classes of the Fine Art department. This will be best seen in the following table:—

	Superficial Feet occupied							
	Architecture		Paintings in Oil and Water- Colours		Sculpture		Etchings and Engravings	
	Horiz- ontal	Vertical	Horiz- ontal	Vertical	Horiz- ontal	Vertical	Horiz- ontal	Vertical
Great Britain and colonies	165	3,531	—	29,208	3,563	—	—	2,034
Austria	—	—	—	5,064	210	—	—	115
Belgium	—	—	—	4,189	776	—	—	376
Brazil	—	—	—	53	—	—	—	7
Denmark	—	—	—	1,887	15	—	—	—
France	—	—	—	11,246	1,761	—	—	—
Germany	—	40	—	7,961	751	—	—	76
Greece	—	—	—	209	142	—	—	—
Holland	—	—	—	2,848	—	—	—	—
Italy	—	591	—	4,151	859	—	—	18
Norway and Sweden	—	—	—	2,873	54	—	—	—
Rome	—	—	—	1,031	1,267	—	—	101
Russia	—	—	—	1,145	434	—	—	188
Spain	—	—	—	1,643	30	—	—	10
Switzerland	—	—	—	1,972	151	—	—	—
Turkey	—	—	—	83	—	—	—	—
United States of America	—	—	—	348	8	—	—	56
Totals	165	4,162	—	75,891	10,021	—	—	2,981

The total amount of space thus occupied by the Fine Arts classes was 34,773 vertical superficial feet, and 3,728 horizontal superficial feet for Great Britain and colonies, and 48,323 vertical superficial feet, and 6,458 horizontal superficial feet for foreign countries; making altogether 93,220 superficial feet actually occupied by Works of Art in the four classes specified. So that the total amount of space actually occupied by Goods and Works of Art at the International Exhibition of 1862 was as under :

	Feet
Horizontal space	401,332
Vertical space	367,766
Total	769,098
Add for passages in the thirty-six } industrial classes	662,061
Total	1,431,159

In this calculation the floor space of the picture galleries is not taken into account, ex-

cept such parts of it as were occupied by Works of Art.

NUMBER OF EXHIBITORS.

The total number of Exhibitors at the International Exhibition of 1862, was 28,653, including 2,305 artists whose works were exhibited in the four classes of the Fine Arts department. In the thirty-six Industrial classes the total number of exhibitors was 26,348 :—of this number 8,487 were British exhibitors (including colonies), and 17,861 were exhibitors from foreign countries. In the Fine Arts division the number of British artists represented was 990, and foreign, 1315; and the total number of their works shown was 6,529; of which 3,651 were British, and 2,878 foreign. The following return shows the number of works exhibited, and the number of artists represented in each of the four Fine Arts classes :—

	Architecture		Paintings in Oil and Water- Colours		Sculpture		Etchings and Engravings	
	Works exhibited	Artists represented	Works exhibited	Artists represented	Works exhibited	Artists represented	Works exhibited	Artists represented
Great Britain and colonies	633	197	1,874	545	321	96	823	152
Austria	17	10	120	66	13	9	7	6
Belgium	—	—	118	52	29	17	35	13
Brazil	—	—	6	5	3	3	1	1
Denmark	—	—	85	47	21	10	7	6
France	42	18	284	154	52	42	122	41
Germany	88	32	193	105	86	23	120	40
Greece	—	—	5	2	38	10	—	—
Holland	10	2	128	64	—	—	4	4
Italy	116	37	123	80	120	57	80	27
Norway and Sweden	—	—	97	41	12	4	—	—
Rome	2	1	74	32	184	61	31	12
Russia	73	5	79	44	15	13	17	10
Spain	2	2	50	27	3	3	11	9
Switzerland	—	—	109	49	3	3	11	3
Turkey	—	—	5	1	—	—	—	—
United States	—	—	20	8	1	1	6	3
Totals	983	304	3,370	1,322	901	352	1,275	327



International Exhibition of 1862.—Picture Galleries.

EXPENDITURE.

The entire cost of the undertaking may be stated in round numbers at 460,000*l*.

Before giving the various items which make up the total expenditure, it should be stated that the contract for the main building, including the centre acre of the picture galleries

and the western annexe, was *for use and waste*, with the right of purchase, on terms specified, at the close of the Exhibition. By the conditions of the contract it was agreed that the contractors should receive 200,000*l*. absolutely, and an additional 100,000*l*. if the receipts reached half-a-million. If, however, they received the 300,000*l*. the centre acre of the

picture gallery was to become the property of the Exhibition Commissioners.

It should also be mentioned that in order to meet a possible pecuniary loss from so vast an undertaking, the Society of Arts had recommended to the Royal Commissioners for the Exhibition of 1851, the establishment of a guarantee fund of not less than 250,000*l*. An appeal was accordingly made to the public, and succeeded beyond expectation, the amount subscribed reaching upwards of 450,000*l*. By the terms of the Guarantee Deed, the liability of each guarantor was confined to his rateable proportion of the entire sum to be raised. The number of guarantors who signed the deed was 1,152, and the limit of liability was fixed at 250,000*l*.

The principal items of expenditure were as follows:—

Contractors for the building, including 86,833 <i>l</i> . for eastern annexe	£ 320,680
Designs, drawings, and professional superintendence	8,323
Roads and approaches	13,359
Police	19,436
Insurance and fire brigade	4,088
Salaries and wages	45,778
Rent, taxes, repairs, furniture, printing, stationery, advertising, and incidental expenses	11,749
Maintenance, including opening ceremony, declaration of awards, gas, fuel, water, &c.	9,690
Carriage of pictures, &c.	4,202
Medals	6,410
Preliminary expenses and law charges	3,668
Computation of space and general arrangement	3,676
Interest on loan from Bank of England, less interest on investments	7,331
Other charges not enumerated	1,247
Total	£459,637

Taking, therefore, the total cost of the Exhibition Buildings to have been 321,000*l*., and the total amount of covered space 1,292,000 square feet, the cost per square foot was nearly five shillings.

ADMISSION OF VISITORS.

The International Exhibition of 1862 was opened to the public on Thursday, May 1, and was closed on Saturday, November 15, making a total of 171 days on which the public were admitted.

The arrangements which regulated the admission of the public were as follows:—

- 1st, by season tickets;
- 2nd, by payment at the doors.

On the day of the opening, season ticket holders only were admitted. On the two next days the admission fee was 1*l*.; from May 5 to May

17 (inclusive), 5*s*. each person; from May 19 to May 31 (inclusive), 2*s*. 6*d*., except on the Saturday in each week, when it was 5*s*.; from June 2 to June 14 (inclusive), the admission was 1*s*. for the first four days in each week, on Fridays 2*s*. 6*d*., and on Saturdays 5*s*.; from June 16 to November 1 (inclusive), the admission was 1*s*. for the first four days in each week, and on Friday and Saturday 2*s*. 6*d*., with the exception of Friday, July 11 (the day of the declaration of the jury awards), when it was 10*s*. each person; and from November 3 to November 15 (inclusive), the admission each day was half-a-crown.

The season tickets were of two kinds—ordinary season tickets for three guineas, and special season tickets at five guineas each. These special season tickets entitled the owners to free admission to the flower shows, fêtes, and promenades held in the gardens of the Royal Horticultural Society during the time the Exhibition was open, a portion of the charge being payable to the Society in consideration of the privileges granted to the holders of such tickets. In the month of July the price of season tickets was reduced one-half, and season tickets were issued for the shilling days only, at 10*s*. each. Day tickets, in packets of twenty-one for 20*s*. were also allowed to be purchased soon after the Exhibition opened.

RECEIPTS.

The gross or net receipts from all sources were as follows:—

	£	s.	d.
Season tickets	79,672	1	3
Payments at doors	328,858	0	5
Refreshment contracts	29,285	4	11
Official catalogues	3,919	1	10
Licences to photograph	1,925	0	0
Licence for lending opera glasses	250	0	0
Rent for Telegraph office	100	0	0
Umbrella stalls	2,118	12	10
Retiring rooms	1,000	0	0
Commission for photographs, medals, &c., sold in the building	1,241	9	6
Miscellaneous	262	1	5
Contribution from contractors of the building, under agreement	11,000	0	0

Total £459,631 12 2

The following is a statement of the number of season tickets sold and the amount realized:—

	£	s.	d.
At 5 guineas	5,773 = 30,308	5	0
At 3 guineas	17,719 = 55,814	17	0
At 50 <i>s</i>	26 = 65	0	0
At 30 <i>s</i>	919 = 1,378	10	0
At 10 <i>s</i> . (for shilling days)	3,363 = 1,681	10	0
Total	£89,248	2	0



International Exhibition of 1862.—Interior.



	£	s.	d.
Brought forward .	89,248	2	0
Less 8,672 <i>l.</i> 5 <i>s.</i> paid to the Royal Horticultural Society under arrange- ment referred to, and 903 <i>l.</i> 15 <i>s.</i> 9 <i>d.</i> commis- sion to agents .	9,576	0	9
Total .	£79,672	1	3

The greatest amount of money taken at the doors on any one day, was 2,935*l.* 12*s.* 4*d.*, on Monday, October 30, being the last shilling day; and the smallest amount taken in any one day, was 241*l.*, on Saturday, May 3, when the admission fee was 1*l.* each person. The average daily receipts at the doors for the whole period of the Exhibition, except the first day, when season tickets only were admitted, amounts to 1934*l.* odd.

The following are the various totals taken at the doors according to each rate of admission:—

	£	s.	d.
Total receipts of 2 days at 20 <i>s.</i>	506	0	0
" " 1 " 10 <i>s.</i>	1,052	8	4
" " 16 " 5 <i>s.</i>	17,823	8	5
" " 63 " 2 <i>s.</i> 6 <i>d.</i>	96,066	14	3
" " 88 " 1 <i>s.</i>	213,409	9	5
170 days .	£328,858	0	5

So that the daily receipts at the doors on the 5*s.* days averaged 1,114*l.*; on the halfcrown days 1,525*l.*; and on the shilling days 2,425*l.*

NUMBER OF VISITORS.

The total number of visitors to the International Exhibition of 1862 amounted to nearly six millions and a quarter; the exact number as given in the official returns, being 6,211,103. The daily average was 36,328, and the greatest number entering on any one day, viz. Thursday, October 30th, (a shilling day) was 67,891. The smallest number admitted was on Wednesday, November 5th, (admission 2*s.* 6*d.*) namely, 5,615; but as the Exhibition was then virtually over, it can scarcely be just to take that number as the minimum attendance on any one day. It would consequently be fairer to take the smallest number on any one day between May 1st and November 1st, namely, 7,367, on Thursday, May 15th, a five shilling day.

Although exhibitors were not entitled to free admission after the Exhibition was opened, yet every facility of entrance was given to all those persons whose presence was actually necessary.

The following return shows the total numbers admitted by season tickets, free passes, and payments at the doors:—

	Nos.
Ordinary season tickets .	770,704
Season tickets for 1 <i>s.</i> days .	58,536
Free passes to exhibitors, attendants, and staff :	257,246
Payments at doors, day tickets, and return tickets from Horticultural gardens .	5,124,617
	6,211,103

The daily average number admitted by season tickets, and at the doors by different rates of payment, was as under:—

	Average number admitted daily
Season tickets .	4,507
Season tickets for 1 <i>s.</i> days .	829
Paying 5 <i>s.</i> entrance .	12,352
Paying 2 <i>s.</i> 6 <i>d.</i> .	19,610
Paying 1 <i>s.</i> .	44,904

By an official return, showing the number of visitors on the same days of each successive week, it appears that on

<i>Mondays</i> , the gross total was	1,240,615
<i>Tuesdays</i> , " "	1,286,213
<i>Wednesdays</i> , " "	1,203,658
<i>Thursdays</i> , " "	1,270,388
<i>Fridays</i> , " "	641,996
<i>Saturdays</i> , " "	568,233

The average daily attendance on Mondays, was 44,307: on Tuesdays, 45,936: on Wednesdays, 43,988: on Thursdays, 44,806: on Fridays, 22,138: and on Saturdays, 19,594. The closeness of the average on the first four days in the week is very remarkable.

The following Table shows the total number of visitors daily, during the whole period of the Exhibition.

Date	Day of Week	Entrance Fee	Number of Visitors
May 1	Thursday .	(Day of Opening)	32,596
" 2	Friday . .	£1 0 0	8,727
" 3	Saturday .	£1 0 0	13,707
" 5	Monday .	5 <i>s.</i> 9 <i>d.</i>	15,568
" 6	Tuesday .	5 0	11,351
" 7	Wednesday	5 0	8,857
" 8	Thursday .	5 0	11,148
" 9	Friday . .	5 0	9,091
" 10	Saturday .	5 0	14,306
" 12	Monday .	5 0	8,483
" 13	Tuesday .	5 0	10,547
" 14	Wednesday	5 0	9,869
" 15	Thursday .	5 0	7,367
" 16	Friday . .	5 0	10,297
" 17	Saturday .	5 0	15,920
" 19	Monday .	2 6	15,149
" 20	Tuesday .	2 6	17,812
" 21	Wednesday	2 6	23,345
" 22	Thursday .	2 6	18,926
" 23	Friday . .	2 6	18,102
" 24	Saturday .	5 0	15,246

Date	Day of Week	Entrance Fee	Number of Visitors	Date	Day of Week	Entrance Fee	Number of Visitors
May 26	Monday .	2 6	16,484	Aug. 6	Wednesday	1 0	62,911
" 27	Tuesday .	2 6	17,723	" 7	Thursday .	1 0	53,911
" 28	Wednesday	2 6	19,659	" 8	Friday .	2 6	25,394
" 29	Thursday .	2 6	20,943	" 9	Saturday .	2 6	21,699
" 30	Friday . .	2 6	23,644	" 11	Monday .	1 0	55,818
" 31	Saturday .	5 0	17,282	" 12	Tuesday .	1 0	67,380
June 2	Monday .	1 0	25,890	" 13	Wednesday	1 0	57,291
" 3	Tuesday .	1 0	35,081	" 14	Thursday .	1 0	49,474
" 4	Wednesday	1 0	50,585	" 15	Friday .	2 6	22,399
" 5	Thursday .	1 0	41,090	" 16	Saturday .	2 6	18,432
" 6	Friday . .	2 6	27,643	" 18	Monday .	1 0	60,401
" 7	Saturday .	5 0	17,325	" 19	Tuesday .	1 0	54,862
" 9	Monday .	1 0	58,682	" 20	Wednesday	1 0	59,947
" 10	Tuesday .	1 0	55,358	" 21	Thursday .	1 0	57,991
" 11	Wednesday	1 0	52,690	" 22	Friday .	2 6	23,615
" 12	Thursday .	1 0	39,298	" 23	Saturday .	2 6	21,084
" 13	Friday . .	2 6	27,860	" 25	Monday .	1 0	58,906
" 14	Saturday .	5 0	14,967	" 26	Tuesday .	1 0	59,454
" 16	Monday .	1 0	41,436	" 27	Wednesday	1 0	52,895
" 17	Tuesday .	1 0	53,916	" 28	Thursday .	1 0	53,923
" 18	Wednesday	1 0	45,237	" 29	Friday .	2 6	20,984
" 19	Thursday .	1 0	55,473	" 30	Saturday .	2 6	18,450
" 20	Friday . .	2 6	26,849	Sept. 1	Monday .	1 0	51,242
" 21	Saturday .	2 6	20,697	" 2	Tuesday .	1 0	52,188
" 23	Monday .	1 0	49,237	" 3	Wednesday	1 0	49,163
" 24	Tuesday .	1 0	65,570	" 4	Thursday .	1 0	47,410
" 25	Wednesday	1 0	52,226	" 5	Friday .	2 6	20,600
" 26	Thursday .	1 0	62,840	" 6	Saturday .	2 6	17,300
" 27	Friday . .	2 6	27,775	" 8	Monday .	1 0	51,024
" 28	Saturday .	2 6	30,778	" 9	Tuesday .	1 0	54,292
" 30	Monday .	1 0	50,636	" 10	Wednesday	1 0	42,710
July 1	Tuesday .	1 0	62,336	" 11	Thursday .	1 0	54,191
" 2	Wednesday	1 0	54,496	" 12	Friday .	2 6	21,461
" 3	Thursday .	1 0	57,244	" 13	Saturday .	2 6	16,612
" 4	Friday . .	2 6	30,327	" 15	Monday .	1 0	50,682
" 5	Saturday .	2 6	25,299	" 16	Tuesday .	1 0	52,787
" 7	Monday .	1 0	55,253	" 17	Wednesday	1 0	47,866
" 8	Tuesday .	1 0	58,883	" 18	Thursday .	1 0	47,415
" 9	Wednesday	1 0	53,418	" 19	Friday .	2 6	20,250
" 10	Thursday .	1 0	66,213	" 20	Saturday .	2 6	17,421
" 11	Friday . .	10 0	44,178	" 22	Monday .	1 0	50,236
" 12	Saturday .	2 6	29,667	" 23	Tuesday .	1 0	43,880
" 14	Monday .	1 0	64,353	" 24	Wednesday	1 0	44,844
" 15	Tuesday .	1 0	65,305	" 25	Thursday .	1 0	41,369
" 16	Wednesday	1 0	57,917	" 26	Friday . .	2 6	18,755
" 17	Thursday .	1 0	62,806	" 27	Saturday .	2 6	15,487
" 18	Friday . .	2 6	28,898	" 29	Monday .	1 0	37,215
" 19	Saturday .	2 6	24,362	" 30	Tuesday .	1 0	41,584
" 21	Monday .	1 0	67,552	Oct. 1	Wednesday	1 0	40,468
" 22	Tuesday .	1 0	65,403	" 2	Thursday .	1 0	37,847
" 23	Wednesday	1 0	50,065	" 3	Friday . .	2 6	16,311
" 24	Thursday .	1 0	59,465	" 4	Saturday .	2 6	15,234
" 25	Friday . .	2 6	27,850	" 6	Monday .	1 0	46,957
" 26	Saturday .	2 6	26,353	" 7	Tuesday .	1 0	42,453
July 28	Monday .	1 0	62,830	" 8	Wednesday	1 0	40,165
" 29	Tuesday .	1 0	66,955	" 9	Thursday .	1 0	47,373
" 30	Wednesday	1 0	58,782	" 10	Friday . .	2 6	20,331
" 31	Thursday .	1 0	55,699	" 11	Saturday .	2 6	16,723
Aug. 1	Friday .	2 6	27,562	" 13	Monday .	1 0	51,007
" 2	Saturday .	2 6	23,820	" 14	Tuesday .	1 0	50,758
" 4	Monday .	1 0	65,972	" 15	Wednesday	1 0	52,746
" 5	Tuesday .	1 0	55,836	" 16	Thursday .	1 0	55,269

Date	Day of Week	Entrance Fee	Number of Visitors
Oct. 17	Friday .	2 6	18,410
" 18	Saturday .	2 6	15,849
" 20	Monday .	1 0	50,738
" 21	Tuesday .	1 0	48,538
" 22	Wednesday .	1 0	37,427
" 23	Thursday .	1 0	51,840
" 24	Friday .	2 6	26,284
" 25	Saturday .	2 6	25,239
" 27	Monday .	1 0	58,120
" 28	Tuesday .	1 0	59,366
" 29	Wednesday .	1 0	64,595
" 30	Thursday .	1 0	67,891
" 31	Friday .	2 6	32,811
Nov. 1	Saturday .	2 6	36,258
" 3	Monday .	2 6	6,277
" 4	Tuesday .	2 6	9,090
" 5	Wednesday .	2 6	5,615
" 6	Thursday .	2 6	6,848
" 7	Friday .	2 6	8,747
" 8	Saturday .	2 6	8,890
" 10	Monday .	2 6	6,467
" 11	Tuesday .	2 6	7,505
" 12	Wednesday .	2 6	7,869
" 13	Thursday .	2 6	6,528
" 14	Friday .	2 6	6,851
" 15	Saturday .	2 6	13,776
Total .			6,211,103

All those who came in daily with passes of any description, are included in the above table, as well as in the preceding statistical facts relating to the number of visitors. The total number of persons so privileged has already been given.

JURIES.

The total number of Jurors and Associate Jurors appointed by the exhibiting countries was 620 (331 British and colonial, and 289 foreign). This number was divided as follows:—

Great Britain and colonies	331
Austria	33
Belgium	23
Brazil	1
Denmark	3
Egypt	3
France	82
Greece	6
Hanse Towns	3
Italy	34
Netherlands	4
Norway	1
Portugal	5
Rome	1
Russia	12
South American Republics	2
Spain	4

Sweden	7
Switzerland	9
Turkey	6
United States	5
Zollverein	45
Total .	620

The following table gives the number of Jurors and Associate Jurors serving on each of the 36 Industrial classes.

Class		Jurors	Associate Jurors
1	Mining, quarrying, metallurgy, and mineral products	16	3
2	Chemical substances and products, and pharmaceutical processes	24	3
3	Substances used as food.	45	3
4	Animal and vegetable substances used in manufactures	45	6
5	Railway plant: including locomotive engines and carriages	11	—
6	Carriages not connected with rail or tramroads	6	1
7	Manufacturing machines and tools	15	3
8	Machinery in general	30	2
9	Agricultural and horticultural machines and implements	18	1
10	Civil engineering, architectural, and building contrivances.	23	2
11	Military engineering, armour and accoutrements, ordnance and small arms	23	1
12	Naval architecture, and ship's tackle	14	3
13	Philosophical instruments, and processes depending on their use	13	4
14	Photographic apparatus and photography	5	2
15	Horological instruments . . .	9	—
16	Musical instruments	11	—
17	Surgical instruments and appliances	7	4
18	Cotton	12	2
19	Flax and hemp	9	—
20	Silk and velvet	11	1
21	Woollen and worsted, including mixed fabrics	16	8
22	Carpets	6	—
23	Woven, spun, felted, and laid fabrics, shown as specimens of printing and dyeing	10	1
24	Tapestry, lace, and embroidery .	11	1
25	Skins, furs, feathers, and hair .	11	2
26	Leather, including saddlery and harness	15	1
27	Articles of clothing	24	1
28	Paper, stationery, printing, and bookbinding	24	1
29	Educational works and appliances	21	5
30	Furniture and upholstery, including paper-hangings and papier-mâché	19	—
31	Iron and general hardware . .	24	3
32	Steel, cutlery, and edge tools .	13	—
33	Works in precious metals, and their imitations, and jewellery	12	1
34	Glass	13	2
35	Pottery	9	—
36	Dressing cases, despatch boxes, and travelling cases	7	1
Total .		582	68

Included in the above return are 15 Jurors specially appointed for fire engines in Class 8.

AWARDS.

There were no gradations of medals at the International Exhibition of 1862; one medal only being awarded by the juries. Certificates of honourable mention were also awarded. The total number of medals awarded was 8,141, and honourable mentions, 5,282; of these awards, 2,382 medals, and 1,697 certificates of mention, were given to Great Britain and her colonies; and 5,759 medals, and 3,585 certificates, to the foreign countries exhibiting.

No awards were made in the four Fine Arts classes.

The number of awards made by the International Juries in every class, and to each country, is given in the appendix to the Report of the Royal Commissioners, but it would occupy a great deal too much space to produce it here.

The total number of Jury awards was 13,423, or nearly one award for every two exhibitors.

The following return shows the number of awards gained by each country, and the number of exhibitors in the 36 industrial classes.

Country	Medals	Honourable Mentions	Number of Exhibitors
Great Britain and Channel Islands	1,639	1,268	5,415
British Colonies	743	429	3,072
Africa (Western and Central) and Madagascar	5	—	17
Austria	504	377	1,413
Belgium	1,413	251	799
Brazil	46	38	230
China and Japan	10	8	38
Denmark	59	50	285
France	1,390	877	3,204
Algeria and French Colonies	239	172	826
Greece	57	47	296
Hanse Towns	22	40	187
Italy	322	317	2,099
Mecklenburg	3	9	55
Miscellaneous countries*	5	1	10
Netherlands and Colonies	69	79	348
Norway	41	37	216
Portugal	160	231	1,370
Rome	19	6	76
Russia	176	123	724
South American Republics	18	12	110
Spain	133	149	1,643
Sweden	112	116	511
Switzerland	119	94	374
Turkey and Egypt	86	43	787
United States of America	58	31	128
Zollverein States of Germany	693	477	2,115
Totals	8,141	5,282	26,348

* Borneo, Siam, Hayti, Friendly and Sandwich Islands.

GENERAL INTRODUCTION.

PART I.—UNITED KINGDOM.

THE present Statistical Summary for the United Kingdom has been prepared in accordance with a wish conveyed to Her Majesty's Commissioners, by the Imperial French Commission for the Universal Exhibition of 1867, in a letter dated September 15, 1866, asking for very detailed information under the several heads of Territory, Population, Production, Foreign and Inland Trade, Mercantile Marine, Army, Navy, Finance, &c. &c.

TERRITORY.—Geographical Position—Seas—Mountains—Rivers—Face of Country—Climate.

(a.) *Geographical Position.*—The United Kingdom, which is composed of England and Wales, Scotland, Ireland, the Isle of Man, and the Channel Islands, is situated on the north-west of the European continent, and lies between 50° and $58^{\circ} 41'$ north latitude, and $1^{\circ} 46'$ east, and $10^{\circ} 26'$ west longitude.

(b.) *Seas.*—The kingdom is bounded on the north and west by the Atlantic Ocean, on the south by the English Channel, and on the east by the North Sea. Ireland is separated from Great Britain by the Irish Sea. The sea-coast of the country, in proportion to its size, is therefore very considerable.

(c.) *Mountains.*—Although when compared with those of the continental states of Europe, the mountains in the kingdom are of very inferior elevation, there are several mountain chains in the country. In England the four principal chains are : 1. The Pennine, extending southwards from the Cheviots, on the borders of Scotland, to near Derby, the principal summits of which range are under 3,000 feet. 2. The Cumbrian range, situated for the most part in Cumberland and Westmoreland, containing some of the highest elevations in England, viz., Helvellyn 3,055 feet; Scafell 3,166, and Skiddaw, 3,022 feet. 3. The Cambrian range, occupying nearly the whole of Wales, the highest point of which is Snowdon, viz. 3,571 feet; and 4. The Devonian range, extending through the counties of Somerset, Devon, and Cornwall, the highest summits of which do not exceed 1,800 feet.

In Scotland the principal mountain range is that of the Grampians. The highest mountain in Scotland, and also in Great Britain, is Ben

Nevis, which rises 4,406 feet above the sea level. The Cheviot Hills, situated partly in Scotland and partly in England, extend through a large tract of country.

In Ireland the principal mountains are the Mourne, and the Wicklow ranges. The highest point in the country is Carran Tual, in the county of Kerry, which has an elevation of 3,414 feet.

(d.) *Rivers.*—The most important river in England, although not the longest, is the Thames, on which the Metropolis is situated. It takes its rise in the hills of Gloucestershire, and flows under the name of the Isis until it joins the Thame, when it assumes its ordinary name of Thames, and flows generally in an easterly direction and falls into the German Ocean after having pursued a course of nearly 215 miles.

The other important rivers of England are the Severn, 240 miles in length, which falls into the Bristol Channel, the Trent, Tyne, Wear, Tees, Ouse, Humber, Mersey, Dee, Wye, Medway and Avon. Many of the principal ports of the country are situated on the shores of these rivers—as Newcastle and Shields are upon the Tyne; Hartlepool, Stockton, and Middlesborough upon the Tees; Hull upon the Humber; Bristol upon the Avon, and Liverpool upon the Mersey.

The principal Scotch rivers are the Tweed, Forth, Tay, Spey, and Clyde. Leith is situated upon the Forth, Dundee upon the Tay, and Greenock and Port Glasgow upon the Clyde.

The chief rivers of Ireland are the Shannon, 159 miles in length, the Suir, Barrow, Slaney, Boyne, Bandon, Bann, and Liffey.

(e.) *Surface of the Country.*—Few countries present a greater variety of surface than England, and owing to the mildness of the climate and to a sufficient supply of rain, the soil is exceedingly fertile, and admirably adapted for the cultivation of corn and root crops as well as for pasture. Exclusive of moorlands and hill-pastures, two-thirds of the whole area of the country were returned as under cultivation in the year 1866. Wales and Scotland are more mountainous than England, and, excluding hill pastures, only about one-half the total area of Wales and one-fifth of Scotland was returned as under cultivation in the above-mentioned year. Ireland is a comparatively

flat country possessing a great extent of bog-land; and, although not so well suited as the other parts of the kingdom, for the production of corn crops, owing to the moisture of the climate, has very extensive grass lands and hill pasturages. About one-half of the total area of the country was returned as under permanent pasture, including hill-pastures, in the year 1866.

(*f.*) *Climate.*—The climate of England is more equable and milder, although, within certain limits, it is more humid and changeable, than that of any other country placed at the same distance from the equator. Owing to the position of England, its climate is influenced by warm currents of the Atlantic on the south-west and west, by the cold proceeding from the immense fields of ice in the north: by the vapour exhaled from the Atlantic on the one side and

by the comparatively dry air of the continent on the other. These and other causes are sufficient to account for the changes that take place in the temperature.

In Scotland, the temperature is colder than in England; but owing to the numerous bays and friths which penetrate the coast, the extremes are not so great as might be expected from the northerly position of the country.

The climate of Ireland is milder and moister than that of England and Scotland, and more suited for pasture than for grain crops. Plants that require artificial heat in England will thrive in the open air in Ireland.

The following table, compiled from returns furnished by Professor Airy, the Astronomer Royal, shows the *extremes* of temperature and of rainfall in the three divisions of the kingdom, in the past five-and-twenty years.

Range of Annual Temperature and Amount of Rainfall (so far as obtained) during the Twenty-five Years from 1841 to 1865.

Stations	Latitude (North)	Longitude (West).	Height of Station above Sea Level	Mean Annual Temperature		Mean Annual Rainfall	
				Highest	Lowest	Highest	Lowest
In England and Wales :			Feet			Inches	Inches
Bedford	52 4	0 28	100	52·2	47·8	32·6	16·8
Clifton, near Bristol	51 28	2 38	228	50·2	46·5	40·8	23·7
Greenwich	51 28	0 0	159	51·3	47·0	34·2	16·9
Guernsey	49 33	2 40	204	52·1	47·8	49·1	25·6
Helston	50 7	5 18	106	53·9	48·8	46·6	28·6
Lampeter	52 7	4 5	420	50·1	46·0	55·3	32·2
Newport	50 42	1 17	20	51·4	47·7	47 6	20·5
Nottingham	52 57	1 10	174	49·9	46·3	36·5	17·5
Oldham	—	—	500	—	—	44·1	18·7
Oxford	51 46	1 16	234	50·6	46·2	35·4	14·9
Seathwaite (Borrowdale)	—	—	368	48·9	46·6	182·6	117·5
Whitehaven	—	—	90	50·9	48·7	56·0	34·7
In Scotland :							
Aberdeen	57 9	2 5	90	—	—	43·8	16·5
Applegarth	—	—	180	—	—	42·5	25·6
Carbeth	56 0	4 22	505	—	—	51·5	30·5
Doune	—	—	—	—	—	54·4	28·7
Dumfries	55 4	3 36	61	52·9	50·0	46·9	27·8
Edinburgh	55 58	3 8	{ 307 *372 }	51·3	47·9	23·7	14·4
Glasgow	55 53	4 17	{ 110 *166 }	52·6	49·9	37·2	22·3
Glegyle (Loch Katrine)	—	—	380	—	—	112·5	65·5
Haddington	—	—	—	—	—	29·8	17·3
Head of Duchray Valley (Ben Lomond)	—	—	1,800	—	—	117·0	67·2
Inveresk	55 56	3 3	90	48·6	44·8	32·9	21·4
Sandwick (Orkney)	—	—	100	48·4	45·1	44·4	27·4
In Ireland :							
Armagh	54 21	6 39	211	—	—	43·2	30·5
Belfast	54 35	5 56	27	52·5	50·4	39·2	24·3
Dublin†	53 22	6 21	150	50·3	47·0	38·5	21·5
Enniskillen	54 20	7 34	246	52·0	50·5	49·6	29·4
Limerick	52 39	8 38	160	51·1	49·0	45·2	30·8

* Height of rain-gauge.

† The range of temperature for 1853–65, and of rainfall for 1853–60, are taken from returns furnished by Capt. Wilkinson, R.E., Dublin.

ADMINISTRATION.—General—Local Government—Religious Establishments—Chief Towns.

(*a.*) *General.*—In England the Government is usually styled a ‘mixed form,’ the legis-

lative power being kept distinct from the executive, the latter being vested in the King or Queen alone, who also represents the community in all international transactions and treaties; while the legislative is vested in

the great national council, termed the Parliament, composed of the three Estates of the Realm, that is, of the Queen, of the Lords spiritual and temporal, and the Commons. The Queen is supreme; by her all new laws purport to be enacted, with the consent of the two Houses, and her office is hereditary. The Lords spiritual and temporal are the Prelates and Peers of the Realm. The Commons consist of representatives chosen by the people, partly for counties and partly for cities and boroughs, who are elected at the commencement of every Parliament, and retain their seats for that Parliament only.

The Lords form one House, and sit by themselves; the Commons form another, in which they also sit by themselves. The Queen sits with the Lords, but she occupies her seat only on formal occasions, as when she opens the session, or gives her assent to bills which have passed the two Houses. According to the present practice of the Constitution she cannot be present at any deliberation; nor is she supposed even to be acquainted with what passes, either there or in the Commons, until officially communicated to her. No law can be made, and no tax imposed, without the assent of Parliament, that is, of the Queen and the two Houses of Lords and Commons; and this assent must be given by each separately. The Queen, however, possesses a negative voice only; and no measure can originate with her, unless it be on the occasion of an act of grace. The two Houses possess the power of originating all measures indiscriminately, with the exception of bills affecting the rights of the peerage or containing any grant of money, which must be always introduced in the House of Lords or Commons respectively; and in neither case can the bill so introduced in one House undergo any alteration in the other. Parliament is called together by the Queen, and is prorogued or dissolved by her whenever she thinks fit. She is bound, however, to call it together 'once at least in every year, and oftener if need be.'

A prorogation is the continuation of the Parliament from one session to another; a dissolution is its civil death, which happens by law at the end of every seven years from its commencement, unless it be previously dissolved by Royal proclamation. The whole of the administrative and executive duties of Government are performed in the Queen's name. Through the medium of machinery adapted to that end, she superintends the administration of justice, and causes the laws to be duly carried into effect. All courts of justice, and their attendant functionaries and officers, as judges, sheriffs, justices of the peace, constables, &c., derive their authority immediately from her. It is the duty and office of the Queen to suppress disturbances, and preserve peace throughout the kingdom; any violation of which is called, therefore, a breach of the Queen's peace. In foreign relations, she makes war and

peace, negotiates treaties, sends ambassadors abroad, and receives them at home. As incidental to the discharge of these onerous duties, the Queen has the entire disposal of the national force, military as well as civil, the officers in each being appointed by her, though their pay is provided for by authority of the whole Parliament. In the exercise of her prerogatives within the limits sanctioned by law, she is responsible to none; and even if any act done by her direction be not within the recognised power of the Crown, she is exempted from *personal* responsibility. Hence it is, that the Queen, in all her acts, employs the agency of officers or persons not protected by any such legal exemption, and uniformly leaves the conduct of state affairs to her ministers, a certain number of whom form what is termed the Cabinet Council. The acts of the executive are also necessarily subject to another very effective check. As the ordinary revenues of the Crown are no longer adequate to the exigencies of the state, a frequent resort to the Commons for pecuniary supplies has become necessary. On such an occasion the measures of the ministers are often the subject of discussion, and the means of carrying them into effect may be either withheld, or granted upon equitable conditions. It is, however, obvious, that the power of absolutely withholding them can be beneficially exercised only where they are not essentially necessary to the common welfare: thus, it would be absurd for the Commons to attempt to restrain the ministers of the Crown, by refusing to pay the public creditor, or to maintain the civil and military establishments of the Empire.

(b.) *Local Government.*—As regards Local Government, the country is divided, for civil purposes, into counties, cities, boroughs, and parishes. The ministerial and judicial business of the county is transacted by the High Sheriff, the Coroner, and the Justices of the Peace. The military government is confided to the Lord Lieutenant, who is assisted by Deputy Lieutenants. The Lord Lieutenant has the command of the Militia, and is frequently the *custos rotulorum* or keeper of the records of the county. The principal objects of local government are the preservation of peace and order; the maintenance of the poor and police; the making and keeping in repair of roads, streets, and bridges, &c. &c. The money required for effecting these objects is obtained from a rate levied on the property (land, houses, &c.) in the county.

The government of Municipal cities and boroughs is performed by the Mayor and Corporation, and that of the parishes by various parochial officers. In many populous towns not incorporated, Commissioners and Boards, such as local Boards of Health, Improvement commissioners, &c. &c. are elected by the ratepayers, under the authority of Parliament, to conduct useful works and manage local business.

(c.) *Religious Establishments.*—The Established Church of England is Protestant Episcopal, but all religions are tolerated. The administration of the State religion is entrusted to the clergy; a class set apart for this purpose, and who constitute what is meant by the Church of England. They are supported by revenues derived from lands, tithes, church-rates, pew-rents, Easter offerings, and fees for baptisms, burials, &c. The ecclesiastical divisions of England and Wales are provinces or archbishoprics, dioceses or bishoprics, arch-deaconries, deaneries, and parishes; each of which has its functionaries, who preside over the functionaries of the inferior divisions; the Queen, as Head of the Church presiding over all. There are two archbishops, viz. of Canterbury and of York, and twenty-five bishops under them. For the management of ecclesiastical affairs, the provinces have each a council or Convocation, as it is termed, consisting of the bishops, archdeacons, and deans in person, and of a certain number of proctors, as the representatives of the inferior clergy. These councils are summoned by the respective archbishops, in pursuance of the Queen's mandate. The management of the affairs of the Dissenting bodies, rests in their own hands. The Church of Scotland is governed by a General Assembly, which meets annually. A representative of the Sovereign, styled the Lord High Commissioner, attends the meeting. The Church of Ireland, like that of England, is Protestant Episcopal, and is governed in a similar manner. The bulk of the population (about four-fifths) of Ireland, however, profess the Roman Catholic faith.

(d.) *Chief Towns.*—The most important cities and towns in England are London, Liverpool, Manchester and Salford, Birmingham, Leeds, Sheffield, Bristol, Wolverhampton, Newcastle-upon-Tyne, Stoke-upon-Trent, and Hull. The population of each of the above mentioned places exceeds 100,000 souls. Seventy-two other towns in England and Wales had a population exceeding 20,000 persons at the taking of the census in the year 1861. The chief towns in Scotland are Edinburgh, Glasgow, Dundee, Aberdeen, Paisley, Greenock, Leith, and Perth; and in Ireland, Dublin, Belfast, Cork, Limerick, Waterford, and Londonderry. The population of the three Capitals in the year 1861 was: in London, 2,803,989 persons, in Edinburgh, 170,444, and in Dublin, 314,409.

AREA.—Total—Coast Line—Harbours.

(a.) *Total.*—The total area of the United Kingdom is 121,115 square miles, or 77,513,000 statute acres, which is distributed as shown in the following table. It must, however, be borne in mind, as regards the area under cultivation, that the returns for Ireland are inclusive of hill-pastures, which makes the cultivated area in that division appear relatively greater than in the other divisions in which hill-pastures are not included.

Divisions, &c.	Area		Extent returned in 1866 as under Crops, Bare, Fallow, and Grass
	In Square Miles	In Statute Acres	
England . . .	50,923	32,590,000	22,262,000
Wales . . .	7,398	4,735,000	2,284,000
England and Wales }	58,321	37,325,000	24,546,000
Scotland . . .	30,685	19,639,000	4,158,000
Ireland . . .	31,755	20,322,000	15,550,000
Islands in the British seas }	354	227,000	115,000
Total, United Kingdom }	121,115	77,513,000	44,369,000

(b.) *Coast Line.*—The extent of the coast line of England and Wales is estimated at about 2,000 miles, and that of Scotland at 2,500 miles. Ireland has a circuit of about 750 miles of coast, great part of which, and particularly on the west and south-west, is deeply indented by arms of the ocean.

(c.) *Harbours.*—The best harbours, both in Great Britain and in Ireland, are situated on the south and south-west coasts, those on the east affording but inferior accommodation to shipping.

The largest harbours in the United Kingdom are those of Portsmouth, Plymouth, Milford Haven, and Cork, and they are surpassed by very few, if by any, in the world. They possess great depth of water, and are capable of affording an asylum to the largest fleet in existence. Holyhead and Dover harbours, in course of completion, will also afford considerable shelter for shipping. Large sums of money have been spent upon several ports in the kingdom. London stands at the head of river ports in Great Britain. The Mersey is the second commercial river in the country. Newcastle, Hull, Bristol, Greenock, Sunderland, Leith, Dundee, Aberdeen, Port Patrick, Kingstown, and numerous other ports admit shipping of very considerable burden; and many smaller ports in all parts of the kingdom admit coasting vessels, and thus greatly facilitate the internal trade of the kingdom.

MEANS OF COMMUNICATION.—Rivers—Canals—Roads—Lakes—Railways—Electric Telegraphs.

(a.) *Rivers, Canals, Roads, and Lakes.*—Independently of navigable rivers, of which there are about 2,500 miles, there are in England and Wales about 2,800 miles of canals, 24,000 miles of turnpike roads, and 100,000 miles of cross-roads. Almost the whole of the great cities and seaport and manufacturing towns are united by water as well as by land communication. In Scotland, the chief canals are, the great canal uniting the friths of Forth and Clyde, and the Union, Crinan, and Caledonian canals. The latter, by uniting a number of lakes, forms a complete system of water communication through the centre of the country.

The turnpike and other roads are estimated at 3,700 miles in length. The length of navigable rivers in Ireland is about 210 miles, and of canals 300 miles. There is no return of the mileage of roads in Ireland.

England possesses very few lakes, and none of any extent. The English lakes are chiefly situated in Westmoreland and Cumberland: the largest (Windermere) is about twelve miles in length and one in breadth. The chief Scotch lakes are Loch Lomond, situated between Dumbarton and Stirling shires; Loch Ness, in Invernessshire; Loch Awe, in Argyshire; and Lochs Tay, Rannock, and Erich, in Perthshire. The largest lake in Ireland is Lough Neagh, in Ulster, which has an area of about 98,000 acres of water. Loughs Erne, Corrib, Mask, Conn, and Killarney are also deserving of notice.

(b.) *Railways*.—The development of the railway system in the United Kingdom during the past fifteen years has been very rapid; and in addition to the extensive means of commu-

nication by rivers, canals, and ordinary roads, there are now 13,289 miles of railway, which may be said to form a connecting link between every town and district in the country.

The mileage of railways open for traffic in each division of the kingdom on December 31, 1865, was:—

	Double Lines	Single Lines	Total
	Miles	Miles	Miles
In England and Wales	6,081	3,170	9,251
Scotland	946	1,254	2,200
Ireland	476	1,362	1,838
United Kingdom	7,503	5,786	13,289

The total amount of capital paid up on shares, loans, &c., for railways in the United Kingdom to December 31, 1865, was 455,478,000*l*.

The amount of passenger traffic during the years 1864 and 1865, in each division of the kingdom, was as follows:—

	Years	In England and Wales	In Scotland	In Ireland	In United Kingdom
		No.	No.	No.	No.
Passengers conveyed:					
1st class	{ 1864	23,467,020	2,691,301	1,543,094	27,701,415
	{ 1865	25,053,443	2,840,446	1,769,316	29,663,205
2nd class	{ 1864	59,681,016	1,998,949	3,589,204	65,269,169
	{ 1865	64,520,007	2,349,500	3,913,734	70,783,241
3rd class (including Parliamentary passengers)*	{ 1864	114,016,625	15,515,205	6,769,751	136,301,581
	{ 1865	127,120,088	16,895,582	7,490,599	151,416,269
Total	{ 1864	197,164,661	20,205,455	11,902,049	229,272,165
	{ 1865	216,693,538	21,995,528	13,173,649	251,862,715
Season ticket-holders	{ 1864	51,914	15,403	9,182	76,499
	{ 1865	63,997	20,744	12,406	97,147
Number of Carriages conveyed	{ 1864	54,030	8,619	4,053	66,702
	{ 1865	52,286	3,809	3,204	59,299
„ „ Horses „	{ 1864	230,368	28,419	24,325	283,112
	{ 1865	210,203	17,478	26,869	254,550
„ „ Dogs „	{ 1864	354,019	68,880	36,695	459,594
	{ 1865	312,166	47,709	36,222	396,097

* Parliamentary passengers are conveyed at a rate not exceeding one penny per mile. A train conveying this class of passengers is run throughout the whole length of each line, calling at all stations on every day in the year.

The subjoined table shows the average fares charged by the chief railway companies in each division of the kingdom in the year 1865:—

Divisions and Railways	Average Ordinary Fares			Express Fares	
	1st Class	2nd Class	3rd Class*	1st Class	2nd Class
	Per mile d.	Per mile d.	Per mile d.	Per mile d.	Per mile d.
In England and Wales:					
Great Eastern	2·57	1·97	1·00	2·87	2·00
„ Northern	2·35	1·61	0·98	—	—
„ Western	2·73	1·86	0·96	2·38	1·74
Lanc. and Yorkshire	1·38	1·16	0·60	—	—
London and Blackwall	2·35	1·57	0·96	—	—
„ and N.-West.	1·95	1·44	0·95	2·50	1·96
„ and S.-West.	2·31	1·70	0·98	2·69	1·95
„ Brighton and S. Coast	1·92	1·43	0·90	2·59	2·10
„ Chatham and Dover	2·44	1·66	0·95	3·01	2·03
Manchester, Sheffield and Lincoln	2·43	1·74	0·97	—	—
Midland	2·39	1·71	0·97	—	—
North-Eastern	2·10	1·50	0·85	—	—
„ London	1·53	1·03	1·00	—	—
South-Eastern	1·96	1·39	0·83	2·34	1·70
In Scotland:					
Caledonian	1·21	1·36	0·66	—	—
Glasgow and S. West.	1·25	1·41	0·93	—	—
Great N. of Scotland	1·64	—	0·97	—	—
North British	1·84	1·52	0·91	—	—
Scottish N. Eastern	2·15	1·45	0·99	—	—
In Ireland:					
Belfast and N. Counties	1·94	1·40	0·90	—	—
Dublin, Wicklow, and Wexford	2·05	1·51	0·97	—	—
Great S. and Western	1·94	1·49	0·91	—	—
Ulster	1·99	1·49	0·93	—	—
Waterford and Limerick	2·07	1·53	0·93	—	—

* Including parliamentary passengers.

(c.) *Electric Telegraphs*.—The statistics of the Electric Telegraphs for the use of the public, so far as returned to the Board of

Trade by the respective Telegraph Companies in the year 1865, are given below:—

Name of Company	Length of Telegraph Lines	Length of Wires used	Number of Stations open to the Public	Number of Instruments	Number of Public Messages
	Miles	Miles			
Electric and International	9,306	45,044	1,022	5,778	not ascertained 1,251,265 88,711 66,523 316,272 743,870
British and Irish Magnetic *.	4,401	18,668	491	no return	
South Eastern Railway†	323½	3,064½	104	159	
London, Brighton and South Coast Railway	240¾	688	57	92	
London District‡	123	470	83	195	
The United Kingdom	1,672	9,506	125	358	
Total	16,066½	77,440½	1,882	—	—
Submarine §	887 (in 1863)	—	—	—	—

* The number of messages to and from the Continent transmitted jointly by this company and the Submarine Telegraph Company, and the number of messages for railway companies, newspapers, and news-rooms, are not included with the messages for the public, but are estimated at about 250,000 messages per annum.

† The South-Eastern Railway Company has no working arrangements with any of the Electric Telegraph Companies.

‡ Exclusive of private telegraphs, provided by this company for firms and persons having two places of business, and of the London Fire Brigade system of telegraphs.

§ Telegraph to Calais, 24 miles; to Boulogne, 25 miles; to Dieppe, 78 miles; to Jersey, 80 miles; to Ostend, 70 miles; to Hanover, 280 miles; and to Denmark, 380 miles.

In addition to the above, there are the two cables of the Atlantic Telegraph Company between Ireland and Newfoundland. The length of cable shipped for the 1865 line was 2,300 nautical miles, and in 1866 for laying a new cable and repairing that damaged in the previous year no less than 2,730 nautical miles of cable were employed.

POPULATION.—Total—Nationalities—Religious Denominations—Occupations—Of

Chief Towns—Increase since 1855—Emigration—Blind—Deaf—Dumb—Births—Deaths—Marriages—Paupers—Criminal Offenders.

(a.) *Population*.—The total population of the United Kingdom at the last census, in 1861, was, in round numbers, 29,070,000 persons, and the population of each division of the kingdom:—

Divisions	Population (exclusive of Army and Navy abroad)			Army, Navy, and Merchant Seamen abroad
	Males	Females	Total	
In England	9,224,000	9,730,000	18,954,000	162,273
Wales	552,000	560,000	1,112,000	
Scotland	1,450,000	1,612,000	3,062,000	
Ireland	2,837,000	2,962,000	5,799,000	
Islands in the British Seas	66,000	77,000	143,000	
United Kingdom	14,129,000	14,941,000	29,070,000	250,356

The per centage proportion of the population in the four divisions of the kingdom was, therefore:—In England and Wales 69·1, in Scotland 10·5, in Ireland 19·9, and in the Islands ·5; or out of *ten* parts of the population of the country, about *seven* belonged to England and Wales, *two* to Ireland, *one* to Scotland, and $\frac{1}{20}$ to Islands in the British Seas.

Including males abroad, in the army, navy, &c., there were 14,379,000 males against 14,941,000 females belonging to the kingdom in the year 1861. The estimated population of the United Kingdom (including the army and navy abroad) at the middle of the year 1866 was 30,329,207.

The density of the population per square mile, in 1861, was:—

In England	372·2
„ Wales	150·3
„ Scotland	99·7
„ Ireland	182·6
„ Islands	403·9
United Kingdom	240·0

(b.) *Nationalities*.—The nationality of the population in the several divisions of the kingdom at the same date was:—

Nationalities	In England and Wales	In Scotland	In Ireland	In Islands in the British Seas
English	17,985,617	54,920	50,936	{ 19,525 290
Welsh	1,134,435	1,112		
Scotch	169,202	2,785,804	16,925	1,235
Irish	601,634	204,083	5,720,686	5,534
Born in Islands in the British Seas	18,423	628	10,420	{ 111,354 1,262 4,184+ 63
„ „ the Colonies and the East Indies	51,572	7,559		
„ „ Foreign States	101,832*	8,188†		
„ „ at Sea	3,509			
Total	20,066,224	3,062,294	5,798,967	143,447

* Including 84,090
† " 3,969 } persons who were the subjects of Foreign States.
‡ " 3,923 }

(c.) *Religious Denominations.*—There are no returns of the number of persons of each religious denomination in Great Britain. The number of the various sects in Ireland in 1861 was returned as:—

	Persons
Belonging to the Established Church	693,357
Presbyterians	523,291
Methodists	45,399
Independents	4,532
Baptists	4,237
Quakers	3,395
All other persuasions	14,695
Total Protestants	1,289,206
Roman Catholics	4,505,265
Jews	393
Unspecified	4,103
Total	5,798,967

(d.) *Occupations.*—On comparing the occupations of the people in Great Britain in 1851, the first date at which any reliable returns of occupations were obtained, with similar returns in 1861, the following changes in the three great divisions of employment are noticeable:—

1. The percentage proportion of the population engaged in agriculture had decreased from 12 to 10.

2. The percentage engaged in commerce had increased from 21 to 27.

3. The percentage of all other occupations had decreased from 67 to 63.

These facts will, perhaps, be more readily perceived from the following statement:—

	Engaged in Agriculture	Engaged in Commerce	All other Occupations
In 1851	12	21	67
In 1861	10	27	63

Great difficulty is experienced in procuring correct returns of the occupations of the people; and although many of the difficulties were partially overcome in taking the census in 1861, the information obtained was considered to be still imperfect in many respects. For general purposes, however, the six grand divisions of occupations into which the census returns were arranged afford a tolerably fair approximation of the truth. In England and Wales, out of a

population of 20,066,224, returns of occupations were collected for 19,915,334. In Scotland the returns were complete, and in Ireland 5,416,806 returns of occupations were made out of a total of 5,798,967.

The following were the percentage proportions of the population in the six classes of occupations, in each division of the kingdom, in 1861:—

Classes of Occupations	Percentage Proportions		
	In England and Wales	In Scotland	In Ireland
(1) Professional	2·4	1·7	1·8
(2) Domestic	57·4	57·0	56·8
(3) Commercial	3·1	2·8	2·2
(4) Agricultural	10·1	12·5	18·3
(5) Industrial	24·3	22·8	12·3
(6) Indefinite and non-productive }	2·7	3·2	8·6
	100·0	100·0	100·0

- (1) Including persons engaged in the government or defence of the country, and in the learned professions, arts, sciences, &c.
- (2) Including persons engaged in the domestic offices of wives, mothers, and widows, children and relatives, not otherwise described; scholars, persons engaged in boarding and lodging, and domestic servants, &c.
- (3) Including persons engaged in mercantile pursuits, and other general dealers, carriers on railroads, roads, canals, rivers, and seas, persons engaged in storage, and messengers and porters.
- (4) Including persons engaged in agriculture, arboriculture, horticulture, and about animals.
- (5) Including persons engaged in manufactures of all kinds, not otherwise enumerated.
- (6) Including persons engaged as general labourers, persons of rank and property not returned under any office or occupation. Persons of no specified occupation supported by the community, as pensioners, alms-persons, paupers, lunatics, prisoners, vagrants, &c., and all others of no stated occupation.

The following table shows the total number of persons of each sex engaged as domestic servants, and in agricultural and industrial occupations in each division of the kingdom in the year 1861. The numbers for agricultural and industrial occupations include *all* persons connected with agriculture or with each branch of trade, as farmers, manufacturers, merchants, labourers, operatives, &c. &c.

Number of Persons of each Sex engaged in Domestic Service and in Agricultural and principal Industrial Occupations in each Division of the United Kingdom, according to the Census of 1861.

Branches of Trade, Manufacture, &c., in which employed	In England and Wales			In Scotland			In Ireland		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Servants (domestic) . . .	137,447	1,071,201	1,208,648	10,827	138,375	149,202	41,318	304,767	346,085
In Agriculture, i.e. in fields and pastures } Industries :	1,457,075	376,577	1,833,652	215,716	120,773	336,489	850,121	81,714	931,835
Books	46,983	7,310	54,293	7,662	1,418	9,080	4,032	886	4,918
Musical instruments . . .	6,365	221	6,586	339	1	340	127	1	128
Prints and pictures . . .	5,875	435	6,310	1,259	144	1,403	276	11	287
Carving and figures . . .	4,149	4,600	8,749	404	90	494	77	42	119
Tackle for sports, &c. . .	2,427	1,760	4,187	181	89	270	122	42	164
Designs, medals, &c. . .	2,762	48	2,810	821	10	831	160	5	165
Watches and philo- sophical instru- ments	24,888	735	25,623	1,964	13	1,977	1,012	12	1,024
Surgical instruments . . .	798	231	1,029	31	8	39	15	3	18
Arms	13,031	713	13,744	397	5	402	258	1	259
Machines and tools . . .	110,772	6,646	117,418	10,948	289	11,237	1,505	83	1,588
Carriages	19,896	232	20,128	1,549	1	1,550	2,972	28	3,000
Harness	18,109	1,305	19,414	1,857	7	1,864	3,177	44	3,221
Ships	43,704	75	43,779	9,148	6	9,154	2,220	9	2,229
Houses and buildings . .	480,092	25,579	505,671	68,598	4,708	73,306	57,023	7	57,030
Furniture	55,600	8,316	63,916	6,889	533	7,422	3,347	556	3,903
Implements	39,526	97	39,623	3,523	2	3,525	1,814	—	1,814
Chemicals	18,245	1,764	20,009	4,336	1,600	5,936	700	238	938
Wool and worsted . . .	132,942	105,872	238,814	13,861	14,457	28,318	3,384	33,014	36,398
Silk	45,121	72,868	117,989	2,768	2,552	5,320	354	236	590
Cotton and flax	238,643	324,371	563,014	53,704	88,708	142,412	44,773	82,375	127,148
Mixed materials	57,481	25,689	83,170	11,746	8,064	19,810	24,718	55,028	79,746
Dress	399,166	806,581	1,205,747	51,817	81,290	133,107	66,375	150,625	217,000
Hemp, &c.	17,070	5,813	22,883	5,563	3,950	9,513	1,386	706	2,092
Animal food	102,836	38,349	141,185	9,065	5,359	14,424	13,219	7,935	21,154
Vegetable food	115,485	20,869	136,354	18,355	2,293	20,648	16,742	3,795	20,537
Drinks and stimu- lants	129,293	23,288	152,681	21,150	5,804	26,954	9,034	2,231	11,265
Grease, horn, ivory, } &c.	11,186	854	12,040	1,386	247	1,633	1,175	108	1,283
Skins, feathers, &c. . .	28,360	1,396	29,756	2,761	57	2,818	2,155	222	2,377
Hair	9,711	4,585	14,296	477	279	756	397	268	665
Gums and resins	11,777	2,882	14,659	930	733	1,663	292	513	805
Wood	76,076	2,990	79,066	12,014	294	12,308	12,639	672	13,311
Bark	2,236	116	2,352	655	19	674	488	9	497
Cane, rush, and straw . .	16,048	1,254	17,302	861	70	931	1,286	27	1,313
Paper	19,173	11,632	30,805	3,043	3,695	6,738	2,219	1,115	3,334
Mining	330,352	94	330,446	50,706	133	50,839	3,792	96	3,888
Coal	43,554	4,684	48,238	4,619	356	4,975	2,488	132	2,620
Stone and clay	142,170	2,603	144,773	22,670	124	22,794	7,174	35	7,209
Earthenware	32,981	14,163	47,144	3,136	1,244	4,380	590	348	878
Glass	14,211	1,392	15,603	1,208	34	1,242	242	44	286
Salt	2,404	123	2,527	77	6	83	80	13	93
Water	2,147	26	2,173	184	—	184	194	53	247
Gold, silver, &c. . . .	18,600	2,976	21,576	1,085	35	1,120	527	36	563
Copper	5,752	3,981	9,733	401	1	402	281	—	281
Tin and quicksilver . .	18,434	4,444	22,878	2,432	48	2,480	2,032	—	2,032
Zinc	743	17	760	9	—	9	4	—	4
Lead and antimony } mixed metals	4,927	970	4,997	532	—	532	63	—	63
Brass and other } mixed metals	41,612	3,965	45,577	3,059	118	3,177	1,867	93	1,960
Iron and steel	299,697	16,875	316,572	44,869	131	45,000	26,576	152	26,728

(e.) *Population of Chief Towns.*—The following table shows the *enumerated* population of the principal cities and towns in each division of the kingdom in the years 1851 and 1861, and the *estimated* population for 1866, so far as ascertained:—

Cities, Towns, &c.	Enumerated Population		Estimated Pop. in the Middle of the Year 1866
	In 1851	In 1861	
In England :			
London (metropolis)	2,362,236	2,803,989	3,037,991
Liverpool (borough)	375,955	443,938	484,337
Manchester (city) .	303,382	338,722	358,855
Salford (borough) .	85,108	102,449	112,904
Birmingham (boro') .	232,841	296,076	335,798
Leeds (borough) .	172,270	207,165	228,187
Sheffield (borough) .	135,310	185,172	218,257
Bristol (city) .	137,328	154,093	163,680
Newcastle-upon- } Tyne (borough) .	87,784	109,108	122,277
Hull (borough) .	84,690	97,661	105,233
In Scotland :			
Edinburgh (city) .	161,648	170,444	175,128
Glasgow (city) .	329,097	395,503	432,265
Dundee	80,027	91,664	—
Aberdeen	71,973	73,900	—
Paisley	48,071	47,427	—
Greenock	37,436	43,894	—
Leith	32,219	36,029	—
Perth	24,670	26,094	—
In Ireland :			
Dublin (city) . . .	258,369	314,409	318,437
Belfast	100,301	123,479	—
Cork	85,732	93,389	—
Limerick	53,448	50,068	—
Waterford	25,297	30,570	—
Londonderry . . .	20,187	20,366	—

Note.—In the year 1861 there were seventy-two towns in England and Wales which had each a population of more than 20,000 inhabitants.

The increase in some of the chief cities and towns in England between the years 1855 and 1865 is shown in the next table:—

	Total Estimated Population	
	In 1855	In 1865
London (metropolis)	2,548,382	2,993,513
Liverpool	403,547	476,368
Manchester	317,966	354,930
Salford	92,106	110,833
Birmingham	257,941	327,842
Leeds	186,356	224,025
Sheffield	154,662	211,529
Bristol	144,236	161,809
Newcastle-upon-Tyne	96,307	119,651

(f.) *Increase of Total Population since 1855.*

—The increase of the total population in Great Britain between the years 1855 and 1866 (exclusive of army, navy, &c. abroad) may be taken at about 12 per cent.; the estimated population having increased from 21,807,000 in 1855 to 24,363,000 in 1866. In Ireland, in the same period, the population diminished by about 7 per cent., owing chiefly to emigration.

(g.) *Emigration.*—During the ten years ending in 1865, 1,607,745 persons emigrated from the United Kingdom. Of this number

139,802 went to the North American colonies, 1,005,844 to the United States, 397,302 to the Australian colonies, and 64,797 to other parts. There are no records of the number of immigrants arriving from foreign countries into the United Kingdom.

(h.) *Blind Population.*—The total number of blind persons enumerated at the taking of the last census in the United Kingdom (1861) was 29,248, of which number there were—

In England and Wales.	19,352 or 1 in 1,037	} of the population
Scotland	2,820 „ 1 „ 1,086	
Ireland	6,879 „ 1 „ 843	
Islands in British seas	197 „ 1 „ 728	
United Kingdom	29,248 or 1 in 994	

There are several institutions for the care of the blind in London and in many other towns throughout the country.

(i.) *Deaf and Dumb.*—The total number of deaf and dumb at the same date was 20,311, distributed as follows:—

In England and Wales.	12,236 or 1 in 1,640	} of the population
Scotland	2,335 „ 1 „ 1,311	
Ireland	5,653 „ 1 „ 1,026	
United Kingdom (including islands).	20,311 or 1 in 1,432	

The northern counties of Scotland contain a larger proportion of deaf and dumb than any other part of Great Britain.

(j.) *Births, Deaths, Marriages.*

Years	Estimated Population	Births	Deaths	Marriages
England and Wales				
1863	20,554,137	727,417	473,837	173,510
1864	20,772,308	740,275	495,531	180,387
1865	20,990,946	747,870	491,360	182,470
Scotland				
1863	3,101,345	109,325	71,421	22,087
1864	3,118,701	112,445	74,303	22,675
1865	3,136,057	113,126	70,821	23,577
Ireland				
1864 } 1865 }	*5,798,967	{ 136,640 145,200	{ 94,000 93,700	{ 27,370 20,680

* Population in 1861.

(k.) *Paupers.*—Total number of paupers in receipt of in and out-door relief in each division of the kingdom, on January 1, 1866:—

In England and Wales	920,344
Scotland	121,394
Ireland	65,057

(l.) *Criminal Offenders in 1865.*

	In England and Wales	In Scotland	In Ireland
Number committed for trial	19,614	2,567	4,657
„ convicted	14,740	2,360	2,663
„ acquitted (exclusive of persons found and detained as insane)	4,842	207	1,966

PRODUCTION.—Agriculture—Crops—Wool—Flax—Live Stock—Size of Farms—Forests—Fisheries—Coal—Metals—Petroleum—Clay—China Stone—Salt—Textile Manufactures—Other Manufactures.

(a.) *Agriculture.*—As regards the productions of the soil, there are unfortunately no official returns of the quantities of corn, meat, wool, or of butter, cheese, or other dairy produce annually produced. In this respect England is

far behind most continental nations, where, for some years past, a complete system of agricultural statistics has been in operation. Until the year 1866 no complete returns for the whole kingdom, of even the acreage under crops, and number of live stock, were obtained

The next table shows the extent of land under cultivation, in each division of the kingdom, as returned in 1866:—

Divisions	Total Area	Total Acreage under all kinds of Crops, Bare Fallow, and Grass	Acreage under Corn Crops	Acreage under Green Crops
	Acres	Acres		
England	32,590,397	22,261,833	7,400,170	2,750,008
Wales	4,734,486	2,284,674	521,074	139,265
Scotland	19,639,377	4,158,360	1,366,540	663,257
Great Britain	56,964,260	28,704,867	9,287,784	3,552,530
Ireland	20,322,641	*15,549,796	2,173,433	1,482,091
Isle of Man	180,000	82,902	27,266	12,208
Channel Islands—Jersey	28,717	20,357	3,142	5,253
Guernsey	17,967	11,999	2,041	2,938
United Kingdom	77,513,585	—	11,493,666	5,055,020

* These figures include hill-pastures, which are excluded in the returns for the other divisions of the kingdom.

(b.) *Crops.*—The total acreage under each of the principal grain crops was as follows:—

	Acres
Under Wheat	3,697,635
Barley	2,398,485
Oats	4,469,297
Rye	67,879
Beans	537,210
Peas	323,160
	11,493,666

Taking the average production of wheat at twenty-seven bushels per acre in Great Britain, and at twenty-five bushels in Ireland, the annual production of wheat in the United Kingdom may be estimated at about 12,364,000 quarters. The home production of wheat is, however, far short of the quantity required for consumption, and very large importations of wheat and of other kinds of grain are made, as will be seen by a reference to the remarks on the general import trade of the country. Mr. Caird, a well-known authority on agricultural matters, estimates the average produce of the other descriptions of corn crops in England as follows: barley, 38 bushels per acre; oats and rye, 44 bushels; and beans and peas, 30 bushels.

Of late years much greater attention has been paid to the rearing of live stock in Great Britain, and consequently a large area of the country has been devoted to the culture of root-crops. The total acreage under green crops in the United Kingdom in 1866 was 5,055,020, of which 1,555,609 acres were under potatoes; 2,468,564 under turnips and swedes; 279,987 under mangold; 22,061 under carrots; 216,610 under cabbage, kohlrabi, and rape, and 512,189 under vetches, lucerne, and other green crops, except clover or grass.

(c.) *Wool and Flax.*—Of the raw materials employed in textile manufactures, only two are produced in the United Kingdom, viz. wool and flax. Mr. Behrens, basing his estimate upon the stock of sheep in the country, takes the annual production of raw wool at 152,000,000 lbs. Flax is grown chiefly in Ireland, although small quantities are raised in England and Scotland. The total acreage of flax in Ireland in 1866 was 263,659 acres, and the estimated produce of flax, 1,054,000 cwts.

(d.) *Live Stock.*—The total number of each description of live stock in the several divisions of the United Kingdom in 1866 was:—

Divisions	Cattle			Sheep	Pigs
	Cows	Other Cattle	Total		
	No.	No.	No.	No.	No.
England	1,290,529	2,016,505	3,307,034	15,124,541	2,066,299
Wales	222,546	318,855	541,401	1,668,663	191,604
Scotland	370,447	566,954	937,401	5,255,077	219,716
Ireland	1,481,446	2,261,486	3,742,932	4,270,027	1,493,000
Isle of Man	7,755	10,932	18,687	55,954	10,956
Channel Islands—Jersey	5,815	6,232	12,037	517	6,332
Guernsey	3,030	3,946	6,976	1,214	5,599
Total, United Kingdom	3,381,568	5,184,900	8,566,468	26,375,993	3,993,506

In consequence of the losses by plague, the above return of cattle is short of the ordinary stock kept in the country. Adding the losses by plague to the number of cattle existing at the taking of the above return, the estimated stock of cattle would be 8,716,279. The number of sheep, so far as relates to the northern counties of England and to Scotland, is probably short of a large number of lambs of the year (1866), in consequence of the date at which the returns were made. Pigs kept by cottagers and in towns are not included in the above returns for the several divisions of Great Britain.

In collecting the above returns for Great Britain, no provision was made for ascertaining the number of horses. The number of horses and mules in Great Britain in 1864, according to the tax return, was 1,071,095. The number returned in Ireland in 1866 was 535,000, which would give a total of about one million and a half for the whole kingdom.

(c.) *Size of Farms.*—1. *Great Britain.*—The last return of the size of farms in Great Britain was taken in the year 1851, at which date the total number of farms in each division of the country was as follows:—

	No. of Farms
In England and Wales	225,318
Scotland	56,650
Islands in the British seas	3,968
Total	285,936

The average size of each farm was 102 acres in Great Britain; 111 acres in England and Wales; 74 acres in Scotland, and less than 100 acres in the islands. The proportions in a thousand farms in Great Britain were:—

Under 100 acres	672 farms
100 and under 200 acres	187 "
200 and under 1,000 acres	137 "
1,000 and upwards	4 "
	1,000

The acreage of land in the hands of 2,038 farmers, holding farms of 700 acres and upwards, in England and Wales, at the same

date, exceeded that held by 97,800 small farmers by 10,060 acres, as shown below:—

	No. of Farms	Acres of Land
Farmers holding farms of 700 acres and upwards	2,038	2,152,050
Small farmers	97,800	2,141,990

2. *Ireland.*—The size of farm holdings in Ireland in the year 1864 was—

Size of Holdings	No. of Farms
Under 5 acres	130,690
5 to 15 "	176,368
15 to 30 "	136,578
30 to 50 "	71,961
50 to 100 "	54,247

Total under 100 acres 569,844

100 to 200 acres	22,065
200 to 500 "	8,303
Above 500 "	1,559

Total 601,771

(f.) *Forests.*—There are no returns of the quantity of timber produced in the United Kingdom, but its annual value is estimated at about two millions sterling.

(g.) *Fisheries.*—The British fisheries are of very considerable importance, and a general account of them will be found in the statistical notes to Class 70.

(h.) *Coal and Metals.*—The mineral resources of the United Kingdom are very extensive, and form one of the largest branches of the national wealth. Since the year 1854, very complete returns of the mineral productions of the country have been obtained under the superintendence of Mr. Robert Hunt, the keeper of Mining Records, attached to the Government Museum of Geology. The total value of coal and metals produced in the United Kingdom in the year 1865 amounted to 41,745,429*l.* sterling. The subjoined table represents the quantities and value of the mineral productions in 1865:—

	Quantities		Estimated Value at place of Production	
	Of Minerals raised	Of Metals produced	Of Minerals raised	Of Metals produced
			£	£
Coal Tons	98,150,587	—	24,537,646	—
Iron "	9,910,045	4,819,254	3,324,804	11,774,220
Lead "	90,451	67,181	1,153,134	1,433,161
Copper "	198,298	11,888	927,938	1,134,664
Tin "	15,686	10,039	867,435	971,273
Zinc "	17,842	4,040	52,478	104,810
Pyrites "	114,195	—	71,174	—
Gold (Quartz) "	4,280	oz. 1,664	—	5,824
Silver Oz.	—	724,856	—	199,335
Earthy Minerals (returned)	—	—	774,496	—
" (estimated)	—	—	650,000	—
Metalliferous Ores and Metals other than above (estimated)	—	—	—	150,000
Total	—	—	32,359,105	15,773,287

The total value of coal and metals was therefore—

Coal	£ 24,537,646
Metals	15,773,287
Earthy Minerals exclusive of clay and building stones	1,434,496
Total	41,745,429

A detailed account of the production of the several minerals and metals will be found in the statistical notes to Class 40.

(i.) *Petroleum*.—No returns of the extent of the production of petroleum have as yet been obtained; but the extraction of this mineral oil from the various bituminous shales in several parts of the country, now forms a trade of some importance.

(j.) *Clays and China Stone*.—The total production of porcelain and fire clays and of China

stone in the year 1865 is returned as 1,125,924 tons, valued at 373,916*l*.

(k.) *Salt*.—Salt is produced in Cheshire, in Worcestershire, and in Ireland. The Cheshire salt-works are capable of producing one million tons of salt per annum; the production of the Worcestershire works is about 200,000 tons per annum. The production of salt in Ireland is on a comparatively small scale.

(l.) *Textile Manufactures*.—The manufacture of textiles is very extensively carried on in the United Kingdom, and some idea of its magnitude may be gathered from the fact that in the year 1865, in addition to those made for home consumption, about *ninety-seven* millions pounds worth of textile manufactures were exported from the kingdom.

The number of factories in the United Kingdom, according to the last return (1861), was as stated below:—

Description of Factories	Number of Factories	Number of Spindles	Number of Power Looms	Number of Operatives		Motive Horse-power	
				Males	Females	Steam	Water
Cotton	2,887	30,387,467	399,992	182,556	269,013	281,663	12,467
Flax	899	1,216,674	14,792	24,616	62,813	31,727	4,354
Silk	771	1,338,544	10,709	15,530	36,899	6,186	864
Woollen	1,679	2,182,609	21,770	49,754	37,229	26,879	9,598
Worsted	532	1,289,172	43,048	31,501	54,562	26,234	1,970
Hemp	5	2,580	1	105	502	127	—
Jute	36	32,982	554	2,049	3,918	2,048	60
Hosiery	69	—	—	2,162	2,325	447	46
Total	5,373	36,450,028	490,866	308,273	467,261	375,311	29,359

An account of the production of the various textile industries of the country will be found in the statistical notes to Classes 27 to 31.

(m.) *Other Manufactures*.—A description of the several trades and manufactures of the kingdom is given in the statistical notes to the respective Classes in which the articles are exhibited.

TRADE.—General—Chambers of Commerce—Foreign Trade—Imports—Import Duties—Exports—Export Duties—Merchandise—Bullion—Transshipments—Articles Imported—Retained for Consumption and Exported—Port Trade.

(a.) *Trade*.—With the exception of the manufacture of a few articles which are subject to a certain supervision on the part of the government, in connection with the levying of duties and allowances of drawbacks, &c., trade, in all its branches, is perfectly unfettered and free; and anyone may carry on whatever business he chooses and in whatever place, provided he do not infringe the common laws of the country. Makers and vendors of some articles require an excise licence to carry on their trade, but no difficulty is experienced in obtaining such licence.

The three great classes connected with trade are the producers and manufacturers, the merchants and agents, and the tradesmen or the wholesale and retail purveyors to the consumers. As a rule, the great bulk of the foreign trade of the country is in the hands of

the merchants, who either sell the manufacturers' goods at their own risk, or else purchase the goods of the manufacturers, and sell on their own account. In the first instance, the merchant is allowed a commission on the sales, and in the second, a considerable discount on the price of the goods.

(b.) *Chambers of Commerce*.—Chambers of Commerce exist in most of the principal towns and manufacturing centres in Great Britain. They are composed of the leading manufacturers and merchants of the locality in which they are established; and, in addition to watching over the interests of the trades and manufactures with which they are more intimately connected, they take a general interest in all matters affecting the trade of the country. An annual meeting of the Associated Chambers of Commerce is held in London in the spring of each year.

(c.) *Foreign Trade*.—The foreign trade of the United Kingdom, which is carried on with all parts of the world, has made great progress during the past ten years, the value of imports having risen from one hundred and seventy-two millions sterling, to two hundred and seventy-one millions; the total exports in the same period having advanced from one hundred and thirty-nine millions to two hundred and eighteen millions. It does not fall within the object of these remarks to point out the various details of each particular trade; but it

may be interesting to allude generally to the amount of the trade carried on between the United Kingdom and the most important states of the world.

(d.) *Imports*.—As regards imports, the following countries furnished the chief supplies in 1861 and 1865:—

Countries	In 1861	In 1865
	£	£
Russia	12,822,000	17,363,000
Prussia	6,440,000	6,126,000
Hanse Towns	6,058,000	8,837,000
Holland	7,692,000	12,413,000
Belgium	3,817,000	7,354,000
France	17,826,000	31,625,000
Spain	4,458,000	4,769,000
Italy	2,478,000	2,486,000
Turkey	3,632,000	5,405,000
Egypt	8,398,000	21,773,000
China	8,608,000	10,499,000
United States	49,389,000	21,624,000
Pern	3,169,000	4,002,000
Chili	2,416,000	3,798,000
Brazil	2,631,000	6,797,000
British Possessions	52,676,000	72,840,000

The decline apparent in the figures for the United States needs no comment. The increase in the imports from Turkey, Egypt, China, Brazil and British Possessions, is due, in great part, to the increased importation of raw cotton from those countries during the absence of the American supply.

The remarkable increase in the imports from France is owing to the increased trade which has sprung up between the two countries since the conclusion of the Commercial Treaty of 1860.

(c.) *Import Duties*.—The subjoined table shows the import duties now levied in the United Kingdom upon foreign produce of all descriptions:—

List of Articles subject to Import Duty in the United Kingdom.

Articles		Rates of Duty
		£ s. d.
Beer and ale, mum and spruce beer	barrel	1 0 0
Cards, playing	doz. pks.	0 3 9
Chicory and substitutes for—		
Raw or kiln-dried	cwt.	1 6 6
Roasted or ground	lb.	0 0 4
Chloroform	"	0 3 0
Cocoa	"	0 0 1
Husks and shells	cwt.	0 2 0
Paste or chocolate	lb.	0 0 2
Coffee, raw	"	0 0 3
Kiln dried, roasted or ground	"	0 0 4
Collodion	gallon	1 4 0
Confectionery, succades, &c.	lb.	0 0 1
Corn and grain of all sorts	cwt.	0 0 3
Meal and flour of all sorts, tapioca, sago, arrowroot, semolina, &c. &c., and powder and starch	"	0 0 4½
Dried figs: currants, figs, fig-cake, plums, prunes, raisins	"	0 7 0

Articles		Rates of Duty
		£ s. d.
Dice	pair	1 1 0
Essence of spruce	10% ad val.	
Ether	gallon	1 5 0
Malt	qr.	1 5 0
Milk condensed and preserved (charged in respect of the sugar contained therein)	cwt.	0 5 0
Plate of gold	oz. troy	0 17 0
„ of silver, gilt or not	"	0 1 6
Spirits and articles containing spirit:		
Not Sweetened:		
Brandy and geneva	proofgall.	0 10 5
„ { From foreign countries of production	"	0 10 2
Rum { From countries not being countries of production	"	0 10 5
Tafia—of and from any French colony	"	0 10 2
Rum and other spirits from British possessions	"	0 10 2
Unenumerated	"	0 10 5
Sweetened:		
Sweetened or mixed including cordials, and liqueurs	"	0 10 2
Perfumed spirits for perfumery only	"	0 14 0
Eau de Cologne in flasks (30 to the gallon)	flask	0 0 6
Otherwise as perfumed spirits.		
Sugar:		
Candy and refined	cwt.	0 12 0
Unrefined, 1st class	"	0 11 3
„ 2nd class	"	0 10 6
„ 3rd class	"	0 9 7
„ 4th class	"	0 8 0
Cane juice	"	0 8 0
Molasses	"	0 3 6
Tea	lb.	0 0 6
Tobacco, unmanufactured:		
Stemmed or not:		
Containing 10 lbs. or more of moisture in every 100 lbs. weight thereof	"	0 3 0 and 5%.
Containing less than 10 lbs. of moisture	"	0 3 6
Manufactured:		
Cigars	"	0 5 0
Cavendish or negrohead	"	0 4 6
Snuff, containing more than 13 lbs. of moisture in every 100 lbs. weight thereof	"	0 3 9

Articles	Rates of Duty £ s. d.
Tobacco, Manufactured— <i>continued.</i>	
Snuff, containing less than 13 lbs., &c.	lb. 0 4 6
Other manufactured tobacco	" 0 4 0
Cavendish or negro-head manufactured in bond in United Kingdom, from unmanufactured tobacco	" 0 4 0
Varnish, containing alcohol or spirit	gall. 0 12 0
Vinegar	" 0 0 3
" pickles preserved therein	" 0 0 1
Wine and lees of wine:	
Containing less than 23 degrees of proof spirit	gall. 0 1 0
Containing 26 and less than 42 degrees	" 0 2 6
And an additional duty of 3d. per gallon for every degree of strength beyond 41 degrees.	

(f.) *Exports.*—The chief countries to which exports were made in 1861 and 1865 were:—

Countries	In 1861	In 1865
	£	£
Russia	5,765,000	6,180,000
Prussia	4,057,000	4,010,000
Hanse Towns	13,046,000	22,984,000
Holland	10,989,000	14,960,000
Belgium	4,914,000	6,896,000
France	17,427,000	25,355,000
Spain	3,386,000	3,015,000
Turkey	3,104,000	5,847,000
Egypt	2,398,000	6,168,000
China	3,161,000	3,688,000
United States	11,025,000	25,170,000
" " in 1865	22,907,000	
Brazil	4,690,000	5,771,000
British Colonies . . .	45,139,000	51,546,000

(g.) *Export Duties.*—All articles are free from duty upon exportation from the United Kingdom.

(h.) *General Trade.*—The general progress in the trade of the country is exhibited by the following tables:—

1. *Merchandise.*—The total value of imports for consumption, and of domestic produce exported during the past ten years was as shown below:—

Years	Imports			Exports of British and Irish Produce
	Total	Re-exported	Left for Consumption	
	£	£	£	£
1856	172,544,000	23,393,000	149,151,000	115,827,000
1857	187,844,000	24,108,000	163,736,000	122,066,000
1858	164,584,000	23,174,000	141,410,000	116,608,000
1859	179,182,000	25,281,000	153,901,000	130,411,000
1860	210,531,000	28,630,000	181,901,000	135,891,000
1861	217,485,000	34,529,000	182,956,000	125,103,000
1862	225,717,000	42,176,000	183,541,000	123,992,000
1863	248,919,000	50,300,000	198,619,000	146,602,000
1864	274,952,000	52,139,000	222,813,000	160,449,000
1865	271,072,000	52,996,000	218,076,000	165,836,000

The decline in the general trade in 1858 was caused by the commercial panic of 1857, and in the export trade in 1861-2 by the American war and cotton famine.

2. *Bullion.*—The total value of gold and silver bullion imported into and exported from the United Kingdom since 1858 (the first year for which imports were registered) was—

	Imports £	Exports £
1858	29,493,000	19,628,000
1859	37,070,000	35,688,000
1860	22,978,000	25,534,000
1861	18,747,000	20,811,000
1862	31,656,000	29,326,000
1863	30,030,000	26,544,000
1864	27,728,000	23,132,000
1865	21,462,000	15,092,000

3. *Transshipments.*—This branch of trade which is not included in the above returns has made great progress during the past ten years. The total value of foreign merchandise transhipped at ports in the United Kingdom in 1856 was 4,579,000*l.* and in 1865 6,469,000*l.*

The amount of the general and special trade of the country can be readily ascertained from the above tables.

(i.) *Articles Imported.*—The chief imports consist of articles of food, &c. and of raw materials for manufactures. The only manufactured goods that are imported on a large scale are silks and leather and woollen manufactures. There are no returns of the value of the several articles taken for home consumption, but an approximation to their value may be arrived at by deducting the value of the re-exports of foreign goods from the total importations. The following table shows the value of imports, of re-exports, and of the principal articles remaining for home consumption in the year 1865:—

Principal Articles	Total Imports	Re-exported	Left for Consumption
	£	£	£
1. <i>Articles of Food, Drinks, &c.</i>			
Animals, living:			
Oxen, bulls, &c.	4,401,482	70	4,401,412
Sheep and lambs	1,787,866	272	1,787,594
Bacon and hams	2,133,705	12,756	2,120,949
Beef	421,461	16,872	404,589
Butter	5,945,884	75,393	5,870,491
Cheese	2,463,299	30,992	2,432,307
Cocoa	234,655	101,315	133,340
Coffee	4,600,887	3,249,534	1,351,353
Corn and flour	20,724,115	32,576	20,691,539
Eggs	928,247	—	928,247
Fish	514,712	51,703	463,009
Fruit	2,848,830	232,228	2,616,602
Hops	459,157	18,236	440,921
Lard	468,398	7,382	461,016
Oil, olive	1,684,852	67,855	1,616,997
Pork	576,988	13,615	563,373
Potatoes	161,907	14	161,893
Poultry and game	148,642	120	148,522
Rice	1,347,494	959,952	387,542
Sago	121,285	7,407	113,878
Spices	634,278	458,118	176,160
Spirits	1,700,487	481,735	1,218,752
Sugar and molasses	13,025,903	662,373	12,363,530

Principal Articles	Total Imports	Re-exported	Left for Consumption
<i>1. Articles of Food, Drinks, &c.—cont.</i>	£	£	£
Tea	10,044,462	2,719,454	7,325,008
Tobacco and cigars	3,329,309	732,437	2,596,872
Wine	3,914,196	620,034	3,294,162
Yeast, dried	232,228	8	232,220
<i>2. Raw Materials used in Manufactures.</i>			
Ashes, pearl and pot	226,378	6,469	219,909
Bark, tanning or dyeing	167,133	2,231	164,902
Bones	429,023	46	428,977
Brimstone	359,016	9,739	249,277
Bristles	328,317	22,643	305,674
Caoutchouc, raw	530,588	193,638	336,900
Cochineal	453,668	317,693	137,975
Copper, ore	2,699,064	17,479	2,681,585
Copper, unwrought, &c.	2,049,515	852,489	1,197,026
Cork, rough	198,516	20,100	178,416
Cotton, raw	66,032,193	18,834,258	47,197,935
Flax, rough	5,369,719	127,399	5,242,320
Guano	2,675,995	105,292	2,570,703
Gums	729,377	436,908	292,469
Gutta percha, raw	160,565	9,137	151,428
Hair:			
Goats'	837,322	—	837,322
Horse, cow, &c.	371,366	23,947	347,419
Hemp, raw	1,744,482	252,320	1,492,162
Hides, raw or tanned	3,073,447	767,770	2,305,677
Indigo	2,003,900	2,005,006	—
Iron, bar	584,082	109,369	474,713
Iron, steel, unwrought	100,696	11,084	89,612
Jute, raw	1,774,992	351,801	1,423,191
Lead, pig and sheet	670,694	7,744	662,950
Madder, &c.	741,307	5,344	735,963
Manganese ore	165,894	71	165,823
Nitre, cubic	663,807	27,539	636,268
Oils (except olive).	4,158,779	903,777	3,255,002
Oilcake	859,782	34	859,748
Pitch and tar	165,063	14,615	140,448
Pyrites	510,295	542	509,753
Rags, &c., for paper making	655,581	24,314	631,267
Resin	461,952	16,465	445,487
Saltpetre	384,574	29,167	355,407
Seeds:			
Clover	722,516	67,554	654,962
Flax and linseed	3,983,243	407,968	3,575,275
Rape	629,745	259,451	370,294
Cotton	836,744	13,423	823,321
Shumac	190,407	61,364	129,043
Silk, raw and waste	10,958,467	4,158,814	6,799,653
Silver, ore	382,391	18,321	364,070
Skins and furs	1,316,471	550,127	766,344
Spelter or zinc	702,060	84,050	618,010
Tallow	3,125,282	94,174	3,031,108
Teeth, elephants'	322,286	207,014	115,272
Terra japonica	375,345	118,550	256,795
Tin, unwrought	529,803	186,442	343,361
Valonia	320,460	1,057	319,403
Wood and timber:			
Not sawn nor split and teak	5,570,304	94,977	5,475,327
Deals, battens, &c., sawn or split	6,559,931	86,908	6,473,023
Staves	649,610	12,983	626,627
Other kinds	517,468	—	517,468
Dye woods	238,309	24,845	213,464
Hard woods	661,943	48,605	613,338
Wool, sheep, lambs', &c.	14,930,430	5,889,082	9,041,348
Woollen and worsted yarn	998,784	3,163	995,621

Principal Articles	Total Imports	Re-exported	Left for Consumption
<i>3. Manufactured Articles, &c.</i>	£	£	£
Bells and bugles	178,310	109,285	69,025
of glass	119,486	5,110	114,376
Books	148,247	88,920	59,327
Candles, stearine	166,098	4,202	161,896
China and porcelain ware	473,753	14,110	459,643
Clocks and watches	759,358	198,746	560,612
Cotton manufactures	299,427	634	298,793
Flowers, artificial	620,991	12,892	608,099
Glass manufactures	249,696	117,017	132,679
Hair manufactures	556,065	7,014	549,051
Hats and bonnets of straw	167,706	17,089	150,617
Lace	1,219,194	26,657	1,192,537
Leather manufactures	153,104	43,523	109,581
Linen manufactures	243,813	12,551	231,262
Musical instruments	494,222	11,298	482,924
Paper, all kinds (except hangings)	23,873	773	23,100
Paper-hangings	133,111	175	132,936
Plating of all kinds	8,496,825	166,936	8,329,889
Silk manufactures	163,024	9,524	153,500
Toys	1,891,104	113,025	1,778,079
Woollen manufactures			

(j.) *Articles Exported.*—The export trade of the kingdom consists of the foreign articles shown in the preceding table, and of articles of domestic produce. The exports of British produce are chiefly manufactured articles, minerals, and metals. The value of textile manufactures alone formed about sixty per cent. of the total exportations in the year 1865. The subjoined table shows the value of the principal kinds of articles exported in that year:—

Principal articles	Value £
Agricultural implements	210,300
Alkali, soda	1,123,946
Apparel and slops	2,639,012
Arms and ammunition	1,134,256
Bacon and hams	118,159
Bags, empty	696,291
Beef and pork	39,774
Beer and ale	2,060,976
Books, printed	511,388
Brass of all sorts	232,309
Butter	333,228
Candles, stearine	110,575
Carriages	352,787
Cement	285,898
Cheese	111,102
Coal, coke and cinders	4,427,177
Copper, unwrought	496,148
„ wrought	2,434,062
Cordage and twine	414,213
Corn and flour	274,636
Cotton yarn	10,342,737
Cotton manufactures:	
Piece goods, white or plain	27,791,035

Principal articles	Value £
Cotton manufactures :	
Piece goods, printed, dyed, or coloured	17,085,328
Lace and net	465,611
Stockings	240,534
Thread for sewing	753,326
Hosiery and small wares	587,550
Drugs and chemical products, un- enumerated	919,256
Earthenware and porcelain	1,442,197
Fish, herrings	500,233
" other sorts	189,005
Furniture, cabinet and upholstery wares	289,887
Glass, plate	71,387
" flint	302,105
" window	60,857
" common bottles	310,245
Haberdashery and millinery	5,030,740
Hardwares and cutlery of all sorts	4,326,741
Hats of all sorts	483,594
Horses	185,367
Iron, old	12,587
" pig and puddled	1,599,491
" bar (except railroad), angle, bolt and rod	2,199,837
" railroad of all sorts	3,550,563
" castings and articles of cast iron	792,581
" wire and manufactures of wire	474,005
" hoops, sheets, and boiler plates	1,603,964
" wrought of other kinds	2,456,202
" steel, ingots, bars, and sheets	782,129
Jewellery	164,231
Jute yarn	82,141
" manufactures	311,540
Lead, pig, pipe, sheet and shot	581,634
" ore, red and white lead and litharge	186,123
Leather, tanned unwrought	409,249
" wrought, boots and shoes	1,462,105
" " of other sorts	240,299
" saddlery and harness	350,531
Linen yarn	2,535,321
Linen manufactures :	
White or plain	7,126,330
Printed, checked or dyed	606,040
Cambrics or lawns	300,201
Damask and diapers	111,040
Sailcloth	382,713
Thread for sewing	558,444
Of other sorts	72,222
Machinery, steam engines	1,958,533
" of other sorts	3,264,100
Oil, seed	1,547,683
Painters' colours	473,051
Paper hangings	109,320
" other sorts	447,741
Pickles and sauces	328,381
Plate, gold and silver	62,532
Plated wares	112,452
Provisions, not otherwise described	308,052

Principal articles	Value £
Salt	274,631
Silk, thrown	477,590
" twist and yarn	289,468
Silk manufactures :	
Broad piece goods	550,852
Handkerchiefs and shawls	251,786
Ribbons	120,504
Of other sorts	481,239
Soap	184,279
Spirits, British	244,104
Stationery, other than paper	405,067
Sugar, refined	249,677
Telegraphic wire and apparatus	148,679
Tin, unwrought	498,570
" plates	1,481,098
Wool, sheep and lambs'	901,660
Woollen and worsted yarn	5,429,504
Woollen manufactures :	
Cloths, coatings, &c.	4,023,954
Flannels, blankets, blanketing and baizes	1,203,127
Worsted stuffs	13,360,527
Carpets and druggets	861,453
Of other sorts	655,669
Zinc, wrought and unwrought	94,659
All other articles	6,700,238
Total	165,835,725

(*k.*) *Port Trade.*—There are no returns of the value of Imports at the principal ports in the kingdom. The chief ports at which British goods are shipped for exportation are Liverpool, London, Hull, Grimsby, Southampton, Newcastle, Hartlepool, Folkestone and Cardiff in England in Wales; and Glasgow and Leith in Scotland. Irish manufactures are mostly exported from Liverpool, &c. Of the total exports of the kingdom in 1865, 66 per cent. went from the ports of Liverpool and London.

INLAND TRADE.—The only returns that exist which show the amount of inland trade are those relating to the coasting trade and to railway traffic.

The total tonnage employed in the United Kingdom in conveying merchandise, &c. *coast-wise* during the five years from 1861 to 1865 was:—

	British Vessels	Foreign Vessels	Total
	Tons	Tons	Tons
1861	17,261,779	93,456	17,355,235
1862	17,397,687	72,673	17,470,360
1863	17,465,635	81,897	17,547,532
1864	17,350,579	66,107	17,416,686
1865	18,150,649	77,705	18,228,354

The following table shows the amount of goods' traffic on railways in the three divisions of the kingdom during the years 1864 and 1865:—

Goods Traffic on Railways.		In England and Wales	In Scotland	In Ireland	United Kingdom
		Tons	Tons	Tons	Tons
General merchandise	{ 1864 28,802,262	4,577,483	1,535,168	34,914,913	
	{ 1865 30,640,967	4,487,135	1,659,536	36,787,638	
Coals, coke, and other minerals	{ 1864 61,890,054	13,245,363	310,364	75,445,781	
	{ 1865 63,892,007	13,556,710	357,069	77,805,786	
Live stock :	No.	No.	No.	No.	
Cattle	{ 1864 2,083,254	482,656	427,447	2,993,357	
	{ 1865 1,874,020	488,762	407,048	2,769,830	
Sheep	{ 1864 6,786,127	1,241,279	428,275	8,455,681	
	{ 1865 7,001,654	1,819,125	515,632	9,336,411	
Pigs	{ 1864 1,426,264	65,329	733,155	2,224,748	
	{ 1865 1,448,731	88,388	887,577	2,424,696	

SHIPPING.—(a.) *Foreign Trade*.—The total tonnage entered and cleared (with cargoes and in ballast) in the foreign trade of the United

Kingdom in each of the years 1856, 1860 and 1865 amounted to—

Years	Entered			Cleared			Total		
	British	Foreign	Total	British	Foreign	Total	British	Foreign	Total
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
1856	6,390,715	4,162,419	10,553,134	6,555,056	4,480,859	11,035,915	12,945,771	8,643,278	21,589,049
1860	6,889,009	5,283,776	12,172,785	7,025,914	5,490,593	12,516,507	13,914,923	10,774,369	24,689,292
1865	9,623,432	4,694,454	14,317,886	9,735,523	4,843,683	14,579,206	19,358,955	9,538,137	28,897,092

(b.) *Coasting Trade*.—A very large amount of shipping is engaged in the coasting trade of the country. Foreign vessels have been admitted to the coasting trade since the year 1854, the annexed table shows the progress of the trade since 1856.

Tonnage employed (with Cargoes) in the Coasting Trade.

	British	Foreign	Total
In 1856	15,164,000	53,000	15,217,009
1865	18,150,000	78,000	18,228,000

(c.) *Tonnage belonging to the United Kingdom*.—The total registered tonnage belonging to the kingdom on Dec. 31, 1865, was 4,936,776 tons of sailing vessels, and 823,533 tons of steam vessels. The total number of the crews was 255,654.

POST OFFICE.—In the last Report of the Postmaster-General it is stated that 'the steady growth of the Post Office business during a long series of years gives us every reason to expect that, if the prosperity of the country be not diminished, the Post Office may, without sparing any effort to satisfy the just wants of the public, or to keep pace with the growing desire for improvement, produce in a few years a net revenue nearly equal in amount to the present produce of the income tax.'

The increase in the revenue in the ten years from 1856 to 1865 was—

	Total Postal Revenue	Total Post Office Expenses	Net Revenue
1856	£ 3,035,954	£ 2,438,732	£ 597,222
1865	4,423,608	2,941,086	1,482,522
Increase in 1865 over 1856	1,387,654	502,354	885,300

This increase was owing to the greater facilities afforded to the public for employing the post, by lowering the rates of postage, by extending the number of post offices and boxes for the reception of letters, and by the more rapid delivery of letters, &c.

The present rates of inland postage are as follows:—

On letters weighing less than	
$\frac{1}{2}$ an oz.	1d.
Above $\frac{1}{2}$ oz. to 1 oz.	2d.
„ 1 oz. to $1\frac{1}{2}$ oz.	3d.
„ $1\frac{1}{2}$ oz. to 2 oz.	4d.

And so on, an additional penny for every additional $\frac{1}{2}$ oz., or fraction of the same.

Great facilities are also afforded for transmitting books, printed papers, and MSS. through the post, at the following rates:—

Under 4 oz.	1d.
„ 8 oz.	2d.

And 2d. for every additional 8 oz. No parcel to exceed 24 inches in length.

Patterns or samples under 24 oz. may also be

sent by post, prepaid:—Under 4 oz., 2d.; under 8 oz., 4d.; under 1 lb., 8d.; and under 24 oz., 1s.

The following table shows the number of letters, newspapers, book packets, and patterns sent by the post, in each division of the kingdom, in the year 1865:—

Divisions	Letters	Newspapers, Books, &c.	Patterns
	No.	No.	No.
England and Wales . . .	597,277,616	73,192,132	940,771
Scotland . .	67,048,891	11,324,040	175,474
Ireland . . .	56,140,500	12,736,594	169,871
United King- dom . . .	720,467,007	97,252,766	1,286,116

An important branch of the Post Office is that of the Money Order Department. By payment of a small commission money can be sent from one post office to another in all parts of the kingdom without risk to the sender. The Money Order system is also in operation between the United Kingdom and several of the Colonies, and negotiations are being made to extend it to various foreign countries. The total amount of Money Orders issued in the

United Kingdom in 1865 was 17,829,290/, and of money orders paid 18,144,550/.

TELEGRAPHIC MESSAGES.—There are no complete returns of the number of telegraphic messages annually sent in various parts of the country. The statistics of electric telegraphs, so far as they can be given, are stated under the head of 'Electric Telegraphs.'

ARMY.—Regular and Auxiliary Forces.

(a.) *Regular Forces.*—The total strength of the British army, according to the Estimates of 1866-7, was 137,195, of all ranks, on the British Establishment, and 65,287, of all ranks, serving in India, and paid by the Indian Government. The cost of maintaining 178 native Indian troops serving in Labuan is also defrayed by the British Government. The subjoined table shows the number of officers, men, and horses belonging to the several branches of the service. It must be borne in mind that these troops are not all located in the United Kingdom; a considerable number are serving in the numerous colonies and dependencies of the state.

<i>British Establishments.</i>				
Officers	Non-com- missioned Officers	Rank and File	Total	Number of Horses
Regiments:—				
Royal Horse Artillery	86	132	1,720	1,356
Riding Establishment	7	13	205	122
Life and Horse Guards	99	192	1,029	825
Cavalry of the Line	578	1,035	8,415	5,889
Royal Artillery	799	1,712	14,250	16,761
Royal Engineers	398	374	3,918	4,690
Military Train	92	183	1,521	1,796
Foot Guards	257	446	5,250	5,953
Infantry of the Line	3,740	6,914	65,510	76,164
Army Hospital Corps	1	220	779	1,000
Commissariat Staff Corps	1	112	488	601
Military Store Staff Corps	1	31	168	200
West India Regiments	196	271	3,000	3,467
Colonial Corps	157	326	3,586	4,069
	6,412	11,961	109,839	128,212
Depôts in the United Kingdom of regiments in India .	437	974	7,572	8,983
Total force on British establishment	6,849	12,935	117,411	137,195
General Staff	93	—	—	93
Establishments (exclusive of certain officers included under regiments): recruiting, instruction in gun- nery, &c.	178	278	92	548
Educational establishments	30	241	10	281
Total Force, the cost of which is defrayed from Army funds	7,150	13,454	117,513	138,117
<i>British Forces in India (Paid out of Indian Revenue).</i>				
Royal Horse Artillery	200	249	2,680	3,129
Cavalry of the Line	352	603	4,466	5,421
Royal Artillery	699	790	8,140	9,629
Royal Engineers	336	—	—	336
Infantry of the Line	2,028	3,664	41,080	46,772
Total	3,615	5,306	56,366	65,287

(b.) *Auxiliary Forces.*—The auxiliary forces belonging to the kingdom are the militia, the yeomanry, the volunteers, and the enrolled pensioners, and army reserve force.

The Militia consists of a permanent staff of 5,070 officers and non-commissioned officers. The force is annually called out for twenty-seven days' training, and the estimated numbers for

MERCANTILE MARINE. (a.) *Seamen*.—The total number of the crews of registered vessels belonging to the British Mercantile Marine on December 31, 1865, was 255,654.

(b.) *Merchant Ships*.—Number and tonnage of registered vessels belonging to the Mercantile Navy of the United Kingdom on December 31, 1865:—

	Number	Tonnage
Sailing vessels	26,069	4,936,776
Steam	2,718	823,533
Total	28,787	5,760,309

FINANCE.—Total Revenue and Expenditure
—Branches of Revenue—Taxes repealed,
&c.—Branches of Expenditure—Budget,
1867—National Debt.

The revenue of the United Kingdom is obtained partly by means of direct, and partly by means of indirect, taxation. The chief branches of the former are the assessed taxes, and the income and property tax; and of the latter, the customs, excise, and stamp duties.

The total gross Revenue and Expenditure during the last three years amounted to:—

Years ended	Revenue	Expenditure
March 31	£	£
1864	70,208,964	67,056,286
1865	70,313,437	66,462,207
1866	67,812,292	65,914,357

Showing a considerable surplus of income in each year. The above return of expenditure is exclusive of that for Fortifications, which amounted to 800,000*l.*, 620,000*l.* and 560,000*l.*, in the respective years, and which was provided for by the creation of terminable annuities.

(a.) *Branches of Revenue*.—It will be sufficient for the purpose of indicating the chief sources of the revenue of the country, to quote the figures for the year ending March 31, 1866, in which period the amounts received were:—

Branches	Gross Revenue, Charges of Collection not deducted
	£
From Customs duties	21,276,000
„ Excise „	19,788,000
„ Stamp „	9,560,000
„ Assessed taxes	3,350,000
„ Income and property tax*	6,390,000
„ Post office	4,250,000
„ Crown lands	320,000
„ Miscellaneous	2,878,292
Total	67,812,292

* The amount raised from income tax was considerably less than the amount collected from the same source for some years previous, in consequence of the tax having been reduced to 4*d.* in the pound.

It may be interesting to show the classes of taxed articles belonging to the Customs and

Excise branches which produced the revenue in the above-named year.

The Customs revenue is almost entirely collected from seven articles, viz.:—

	In 1866
	£
From Sugar and molasses	5,228,460
„ Tea	2,599,817
„ Coffee	371,495
„ Corn and flour	743,145
„ Spirits	3,505,176
„ Wine	1,407,021
„ Tobacco and snuff	6,274,298

The receipts from tea were much below the amounts of previous years, in consequence of the duty having been reduced to 6*d.* per pound.

The chief branches of Excise revenue were, in 1865:—

	£
From Spirits	10,176,731
„ Malt	6,394,553
„ Licenses	2,144,402

Taxes repealed, &c.—The following table shows the amount of taxes repealed or reduced, and imposed during the fifteen years, 1851–1865:—

Branches	Repealed or Reduced	Imposed	Actual Diminution(–) or Addition (+)
	£	£	£
Customs	14,089,384	3,293,396	–10,795,988
Excise	5,161,000	6,380,000	+ 1,219,000
Property and income tax }	18,865,000	14,764,000	– 4,101,000
Other taxes	2,608,000	600,000	– 2,008,000
Stamps (in- cluding suc- cession duty) }	1,428,000	2,411,200	+ 983,200
Total	42,151,384	27,448,596	–14,702,788

(b.) *Branches of Expenditure*.—The chief branches of expenditure for the year ended March 31, 1866, were:—

Interest and management
of the National Debt:—

	£
Funded debt	25,904,488
Unfunded debt	328,800
Total debt	26,233,288
Civil List and civil charges of all kinds	10,250,065
Forces: Army, including Ordnance	14,569,279
Navy	10,259,788
Total Forces	24,829,067
Charges of collection of the revenue	4,601,937
Total gross Expenditure	65,914,357

(c.) *Budget, 1866–1867*.—The estimated revenue for the year ending March 31, 1867, is taken at 67,013,000*l.*, and the expenditure at 66,662,000*l.*

(d.) *National Debt*.—The total amount of the National Debt on March 31, 1866, was:—

Funded Debt:	
Capital of unredeemed funded debt	£ 773,313,229
Estimated capital of terminable annuities	21,342,020
Unfunded debt	8,187,700

LOCAL TAXATION.—The amount of local taxation has only been ascertained for England and Wales since the year 1862, and no such returns exist for the other divisions of the kingdom. The various branches of local taxation in England and Wales in 1864 (exclusive of Burial Boards) were:—

Description of rates, &c.	Amount received £
Church rates	241,960
Sewers rates	44,009
City of London Commission of Sewers	17,242
Drainage and embankment	147,145
Lighting, &c.	42,194
Improvement Commissioners	332,983
Metropolis: Local management	850,504
Main drainage	150,881
Markets and fairs	44,547
Bridges and ferries	108,773
Harbours	1,107,751
Local Boards (including district fund account and private improvement and water supply rate)	352,016
Poor rate (including county and police rate)	9,448,319
Metropolitan Police rate	354,627
City of London (including coal and wine duties, police, ward and sewers rates)	421,625
Borough rates	311,953
Highway rates	1,416,629
Turnpike tolls	1,066,156
Trinity House (pilotage and light dues)	374,115
Total	16,833,429

BANKS.—The total number of separate banking establishments in each division of the United Kingdom in the year 1864, was:—

	In England and Wales	In Scotland	In Ireland	In United Kingdom
Banks of England and Ireland and their branches	12	—	30	42
Private banks and their branches	553	—	4	557
Joint Stock banks and their branches	857	614	181	1,652
Total	1,422	614	215	2,251

The average amount of promissory notes issued by private banks of issue in 1864, was

3,112,725*l.*; and by Joint Stock banks, 33,286,921*l.*

Statement of the average aggregate amount of promissory notes, payable to bearer on demand, in circulation in England and Wales, Scotland and Ireland, in the last month of each of the years 1863, 1864, 1865:—

	1863	1864	1865
In England and Wales:	£	£	£
Bank of England	21,355,000	20,330,000	21,294,000
Private banks	3,220,036	3,058,931	2,977,264
Joint Stock banks	2,899,560	2,754,068	2,789,654
In Scotland:			
Chartered, private, and Joint Stock banks	4,639,664	4,626,796	4,903,980
Ireland:			
Bank of Ireland	2,528,500	2,491,000	2,744,950
Private and Joint Stock banks	3,411,753	3,381,706	3,946,290
Total	38,054,513	36,642,501	38,656,138

LIMITED LIABILITY.—The recent change in the liabilities of partnership in banking, credit, and all large commercial undertakings, may be briefly noticed in this place. A paper on this subject was lately read before the Society of Arts by Mr. W. Hawes, and from which the following extracts are made:—

‘Until within the last few years, but two forms of partnership were in use in this country for commercial purposes. *One*—associations or companies consisting of numerous partners bound together for a common purpose, and trading under the protection of royal charters, or, more recently, under the provisions of special Acts of Parliament, each of which strictly limited the liability of the partners to the amount of their subscriptions; and *the other*—the association of individuals as partners trading in their own or joint names, with rules and regulations arranged among themselves for their guidance, but which did not release them, individually or collectively, from responsibility to the full extent of their fortunes for the debts incurred by partnership.

‘The second class, or the association of two or more individuals for a common purpose, and with *unlimited* liability, has, however, always formed the ordinary type of partnerships under which the great bulk of the business of the country has been conducted.

‘The repeal of the usury laws, the increasing number of charters granted, and of Acts of Parliament passed, in both of which the limitation of liability was the main feature, and the increase of our foreign trade with countries where the principle of limited liability was commonly applied to trading partnerships, all helped to remove a restriction upon the introduction of capital to trade, and an interference with the liberty of individuals to make such

contracts for the conduct of their business as they deemed most advantageous, and led at last to the passing of the Acts of 1856, 1857, and 1862, and then to that of 1865, which, though in a very clumsy manner, have enabled men of business, whether associated in large or small numbers, to borrow capital and to appropriate profits in any manner they may think most conducive to their prosperity.

The introduction of the principle of limited liability has led to the formation of a vast number of new companies; and, during the past two years, many large private manufacturing firms throughout the country have been converted into limited liability companies, with every prospect of obtaining far greater results than could be secured under the older methods of trading.

EDUCATION.—General—Elementary in Great Britain and Ireland—Weekday and Sunday Schools—Science and Art—Middle Class Examinations.

The educational system (if it may be so termed) of the United Kingdom is exceedingly complicated. Education is entirely free, and all persons are at liberty to establish schools, to assemble children together, and to teach them their doctrines. Until the year 1833 the State took no part in the education of the people, but from that date it commenced affording aid, under certain conditions, to elementary schools, which has been continued to the present time. The department of Science and Art (established in the year 1853) is also supported by Government, and grants are made to other institutions for the promotion of scientific objects.

A list of the several classes of schools, colleges, and other institutions, &c., connected with the education of the people, will, perhaps, afford the best means of illustrating the educational machinery of the country:—

1. Public elementary schools, day and Sunday.
2. Public normal schools for training teachers for elementary schools.
3. Private schools.
4. Public grammar and foundation schools.
5. Public schools, such as the military, naval, woods and forests, corporation, workhouse, prisons, &c.; also, Ragged, orphan, blind, deaf and dumb, idiot, factory, colliery and chemical work's schools, &c.
6. Universities and colleges.
7. Home instruction and private classes.
8. Middle class, or local examinations, organised by the College of Preceptors in the year 1854, by the Society of Arts in 1856, and by the Universities of Oxford and Cambridge in 1858.
9. Mechanics' institutes, working men's colleges, and evening classes.

The above may be considered as belonging to ordinary education. The following are some of the more important means for imparting special instruction in Art and Science:—

Department of Science and Art, with branch schools throughout the country.

The Royal School of Naval Architecture and Marine Engineering.

The Royal School of Mines.

Edinburgh Museum of Science and Art.

Museum of Irish Industry.

Royal Dublin Society. And numerous others.

The Royal Academies of Painting and Music may also be specially noticed, as contributing in no small degree to the elevation of the national taste.

Attorneys, Surgeons, and Apothecaries, have to pass prescribed examinations before admission to their professions, and candidates for the Army, Navy, and Civil services have likewise to pass examinations before admission into the respective services.

It is impossible in a few lines to give a description of each of the above classes of schools, &c., &c. The schools, however, may be divided, generally, into two classes. 1. *Private*, and 2. *Public*. The first class of schools is supported entirely by the payments of the scholars, and contains the bulk of the children of the middle and upper classes of society. The second class includes all those schools which obtain a portion of their income from any source besides the scholars. The education of the labouring classes of the population belongs to this class, and it may be interesting to give a few observations on the means employed for their instruction.

Elementary Education.—1. *Great Britain.*—It has already been observed that the State commenced aiding the *Elementary* schools of the Kingdom in the year 1833. Up to that time the popular education of the country was carried on by private liberality, incited mainly by religious zeal, and acting, in the matter of daily education, principally through the medium of the two great societies—the *British* and the *National*.

Between the years 1839 and 1866, 8,724,000*l.* have been expended by Government in the cause of popular education in Great Britain. The sums voted annually by Parliament for the purposes of education are administered by the Education Department. The object of the grants made is to promote the education of children belonging to the classes who support themselves by manual labour. The conditions under which the grants are made are too lengthy to be inserted in this place, but will be found in the Report of the Committee of Council on Education.

According to the last return, for the year 1865, the Education Inspectors visited 12,950 schools or departments of such schools under separate teachers. The number of children present at the inspections, was 1,246,055; of certificated teachers 11,266; of assistant teachers 933; and of apprentices 11,383. Of the total number of schools, 2,282 were for boys only; 1,888 for girls only; in 5,858, boys and

girls were instructed together; 1,707 were confined to infants (children under seven years of age); and 1,215 to night scholars. Of the total number of children present, 698,221 were males, and 547,834 were females.

It must be borne in mind, however, that there are many elementary schools in the country which are not under the supervision of the Education Department.

The following table shows the branches of receipts and expenditure of 7,770 of the schools inspected during the year 1865:—

Branches of Receipt	Amount	Branches of Expenditure	Amount
	£		£
Endowments	56,424	Teachers' salaries	980,056
Voluntary contributions	356,810	Books and apparatus	53,389
School pence	424,547	Miscellaneous	256,956
Government grants	322,846		
Other Receipts	98,299		
Total	1,258,926	Total	1,290,401

The total average income and expenditure per child in attendance was:—

	In England and Wales			In Scotland		
	£	s.	d.	£	s.	d.
Including Government grants:						
Income	1	5	8 $\frac{3}{4}$	—	*	
Expenditure	1	6	5 $\frac{1}{2}$	—		
Not including Government grants:						
Income	0	18	2 $\frac{3}{4}$	0	13	1 $\frac{1}{2}$
Expenditure	0	18	11 $\frac{1}{2}$	0	18	0 $\frac{3}{4}$

* The Government grants are paid direct to the teachers and pupil-teachers of schools in Scotland, and do not form any part of the funds disposable at the discretion of the managers.

Age of Scholars.—In 1865, 71 per cent. of the total number were under 10 years of age; 27 per cent. between the ages of 10 and 14, and 2 per cent. above 14 years of age.

Salaries of Teachers.—The average annual salaries of teachers in schools in receipt of grants from Government in Great Britain in 1865 were:—

	Certificated			Un-certificated		
	£	s.	d.	£	s.	d.
Masters	86	10	9	58	16	4
Mistresses	55	2	1	38	8	5
Infants' mistresses	52	3	3	30	1	1

2. *National Schools, Ireland.*—Elementary education in Ireland is under the management of the Board of National Education. In the Irish schools religious instruction is given apart from the ordinary instruction. The number of National Schools in Ireland at the end of the year 1864 was 6,263, with an average daily attendance of 315,108 children. The total

receipts were 340,758*l.*, of which sum 251,016*l.* was from Government aid. There were also 36 model and 55 ordinary agricultural schools, and 3 school gardens in existence at the same date. The teachers' salaries ranged—for masters, first class, from 38*l.* to 52*l.* per annum; and for mistresses, from 30*l.* to 42*l.*; with various grades of inferior amounts for less qualified teachers.

General Statistics.—The following are the latest statistical returns of the total number of persons receiving instruction in schools of all classes in England and Wales:—

	Schools	Scholars		
		Males	Females	Total
Week Day schools:				
Public	24,563	911,152	764,006	1,675,158
Private	34,412	389,607	470,697	860,304
Total	58,975	1,300,759	1,234,703	2,535,462
Sunday schools	33,872	1,189,725	1,221,829	2,411,554

The above return was made in 1858, and relates to schools of all religious denominations.

According to the census of 1861, the total number of scholars (so described) of each sex, in each division of the kingdom, was:—

Divisions	Scholars		
	Males	Females	Total
England and Wales	1,552,738	1,597,310	3,150,048
Scotland	241,803	225,253	467,056
Ireland	342,997	305,380	648,377
Total United Kingdom	2,137,538	2,127,943	4,265,481

Science and Art Education.—According to the last report of the Department of Science and Art for the year 1865, there were 158 Science Schools and institutions (exclusive of six navigation schools) in which science instruction was given under certificated teachers. Of these 158 schools, 121 were in England, 8 in Scotland, and 29 in Ireland. The number of classes amounted to 484, and the students to 6,835.

The number of Schools of Art at the same date was 92, attended by 16,621 students, and extending their instruction to 89,967 children in elementary schools.

In addition to aiding the industrial classes in obtaining instruction in the branches of science and of art which have a direct bearing on their occupations, the Department of Science and Art is charged with the administration of the South Kensington Museum, the central repository for examples of science and art, which, as far as practicable, are made available throughout the kingdom.

Middle Class Examinations.—A great impetus was given to the promotion of sound education amongst the middle classes in the

year 1854, by the institution of the College of Preceptors' examinations of pupils in schools. In the year 1856 the Society of Arts commenced its plan of examination of persons attending classes at Mechanics' Institutions. The Universities of Oxford and Cambridge, in the year 1858, established what are now known as the 'University Local Examinations.' The number of candidates annually examined by these bodies, in various parts of the country, has risen from 587 in 1854, to 5,438 at the close of the year 1866. The examinations by the University of Cambridge, the College of Preceptors, and the Society of Arts, are open to both sexes; those of the University of Oxford are at present limited to the male sex.

The number of candidates presenting themselves for examination in 1866 was as follows:

At the University of Oxford Examinations	1228
At the University of Cambridge Examinations	1538
At the College of Preceptors Examinations	1575
At the Society of Arts Examinations	1097

It is almost impossible to overrate the importance of this movement, which has already effected a very great improvement in the education of the middle classes, and more especially in private schools.

INSURANCE.—Life—Marine—Fire.

(a.) *Life and Marine.*—There are no returns of the amount of Life and Marine Insurances, the companies not being required to make returns of their business. Life Insurance has, however, very greatly increased during the past fifteen years.

(b.) *Fire.*—As regards the Insurance of Property and Farming Stock, the duty on the policies of which is levied annually, the stamp returns afford the means of furnishing the value insured. In the year 1864, the following amounts were insured in each division of the Kingdom:—

Divisions	Estimated Value of Property Insured	Estimated Value of Farming Stock Insured
England and Wales	£ 1,101,444,000	£ 69,455,000
Scotland	92,234,000	6,564,000
Ireland	58,202,000	1,151,000
Total	1,251,880,000	77,170,000

Farming stock is exempted from stamp duty. The fire insurance duty is 1s. 6d. on every 100*l.* insured.

INSTITUTIONS CONNECTED WITH THE WELFARE OF THE INDUSTRIOUS AND WORKING CLASSES.
—Savings Banks—Post Office Savings Banks—Annuities and Insurances—Friendly, Co-operative, Loan, Building, and Land Societies—Working Men's Clubs.

(a.) *Savings Banks.*—There are two classes of Savings Banks in existence at the present

time. 1. Those which have been in operation since the year 1817; and 2. The Post Office Savings Banks, established in 1861.

An experimental Deposit Bank for seamen has lately been established at Liverpool under the supervision of the Board of Trade. No interest is allowed on deposits, but a seaman can at any time deposit sums of money and withdraw them at a moment's notice. Seamen going on a voyage can have their money transferred to a savings bank, and then interest is allowed at the rate of three per cent. per annum.

The following table shows the number of individual depositors, and of charitable institutions and friendly societies depositing their funds in the old Savings Banks, and of the sums deposited, divided into classes, as rendered by the Banks to the National Debt Commissioners, on the November 20, 1865:—

	Number of Depositors	Amount of Deposits, including Interest	Average Amount of each Account
On November 20, 1865			
		£	£ s. d.
Not exceeding £1	251,820	69,058	0 5 5
" " 5	275,785	702,116	2 10 11
" " 10	177,384	1,250,381	7 0 1
" " 15	125,516	1,510,850	12 0 8
" " 20	79,577	1,369,962	17 4 4
" " 30	134,817	3,247,909	24 1 10
" " 40	103,926	3,491,997	33 12 0
" " 50	56,991	2,529,887	44 7 10
" " 75	94,197	5,732,215	60 17 0
" " 100	46,454	4,022,759	86 12 0
" " 125	32,413	3,589,615	110 14 10
" " 150	18,692	2,545,825	136 4 0
" " 200	30,887	5,298,967	171 10 11
Exceeding 200	2,152	450,302	209 4 3
Individual depositors	1,430,611	35,811,843	25 0 10
Penny-banks	891	65,426	73 7 3
Charitable institutions	14,446	696,768	48 4 0
*Friendly societies	11,619	1,869,970	161 0 0
Total	1,457,567	38,444,007	26 7 8

* The number and amount of deposits of friendly societies above shown, relate only to those societies having funds deposited in Savings Banks, and are exclusive of those societies whose funds are deposited direct with the Commissioners.

The number of friendly societies in direct account with the commissioners on November 20, 1865, was 545; amount deposited, 1,915,703*l.*; average amount of each account, 3,496*l.*

(b.) *Post Office Savings Banks.*—The position of the Post Office Savings Banks on the 31st of December, 1865, was as shown below:—

Number of Post Office Savings Banks	3,321
Number of deposits received since 16th of September, 1861	3,895,135
Total amount of deposits	£ 11,834,979
Average amount of each deposit	3 <i>l.</i> 0 <i>s.</i> 9 <i>d.</i>

Total amount of withdrawals since 16th of September, 1861	£ 5,619,250
Average amount of each withdrawal	5 <i>l.</i> 11 <i>s.</i> 1 <i>d.</i>
Charges of management	141,375
Average cost of each deposit or withdrawal	6 ⁹ / ₁₆ <i>d.</i>
Total amount standing to credit of all open accounts, inclusive of interest, on 31st December, 1865	£ 6,526,400
Average amount standing to credit of each open account on 31st of December, 1865	10 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i>

Post Office Savings Banks are established at all Money Order Offices in the United Kingdom, which are open for the receipt and payment of money daily during the hours appointed for Money Order business.

At these Banks deposits of one shilling, or any number of shillings, will be received; but no one may deposit more than 30*l.* in one year, or more than 150*l.* in the whole, exclusive of interest.

Interest at the rate of 2*l.* 10*s.* per cent. per annum (which is at the rate of sixpence in the pound for each year, or at the rate of one halfpenny on each complete pound for each month, reckoning from the first day of the calendar month next following the day on which a complete pound has been deposited, up to the last day of the calendar month preceding the day on which the money is withdrawn) is allowed until the sum due to a depositor amounts to 200*l.*, when interest ceases to be allowed. The interest due to each depositor is added to the principal due to him on the 31st of December in each year.

(c.) *Annuities and Insurances.*—Another feature connected with the Savings Banks is that of granting annuities. The old Savings Banks grant annuities, not exceeding 30*l.* each, to the industrious classes; but under the more recent arrangement in connection with the Post Office Savings Banks both annuities and insurances may be effected. The following are some of the principal rules of the Government Insurance and Annuity Office:—

The Postmaster-General is empowered, under the Act 27 & 28 Victoria, cap. 43, to insure the lives of persons of either sex, between the ages of 16 and 60, for not less than 20*l.* or more than 100*l.* He is also empowered under the same Act to grant immediate or deferred annuities of not more than 50*l.* on the lives of persons of either sex, and of the age of 10 years and upwards. The persons whose lives are insured, or to whom annuities are granted, by the Postmaster-General, have direct Government security for the payment of the money at the proper time.

Certain Post Offices (the names of which

may be obtained at any Post Office) have been opened for the receipt of proposals for the insurance of lives and the purchase of annuities, and forms of proposal, with full instructions for filling up and delivering these forms, may be obtained at these Post Offices.

Tables of the premiums to be charged for the insurance of lives; for the grant of immediate annuities; for the grant of deferred annuities or deferred monthly allowances, without return of purchase-money, and for the grant of deferred annuities or deferred monthly allowances, with return of purchase-money, have been printed and may be seen at the Post offices which have been opened for the receipt of proposals. The price of the tables for the insurance of lives and the grant of annuities without return of purchase-money is 3½*d.* The price of the tables for the grant of annuities with return of purchase-money is 2*d.* If sent by post, 5*d.* is charged in the one case, and 3*d.* in the other.

The premiums to be charged for the Insurance of lives vary with the ages of the persons whose lives are to be insured, and with the mode in which they are to be paid.

The annuity or monthly allowance granted on any one life must not exceed 50*l.* per annum, or 4*l.* 3*s.* 4*d.* per month; but purchasers need not purchase the whole amount of such annuity or allowance at one time. They may begin by purchasing such part as they can afford to purchase, and go on increasing their purchases from time to time as their circumstances will permit.

Husband and wife may each be insured to the full amount of 100*l.*, and may each purchase an annuity of 50*l.*, or a monthly allowance of 4*l.* 3*s.* 4*d.* Any two persons may purchase an annuity on their joint lives, with or without continuance of the annuity to the survivor.

Persons contracting for the insurance of their lives, or for the purchase of annuities or monthly allowances, will be allowed to pay their periodical premiums or instalments of purchase-money at such of the Post Offices which have been or may hereafter be opened for the purpose, as will suit them best.

Persons proposing to effect insurances on their lives, or to purchase deferred monthly allowances, must provide at their own cost such certificates of birth or baptism, or other evidence of age, as shall be required from them, but will not be required to pay any fee for medical examination, or to pay the cost of any inquiry which the Postmaster-General may think fit to make with regard to their health, habits, age, and occupation, or to pay any fee for the issue of any contracts which may be made in accordance with their proposals, or to pay any postage for the transmission of their proposals, or for the transmission of any correspondence arising out of such proposals between them and the Postmaster-General,

inasmuch as a provision for all such costs and charges is included in the premiums which they will be required to pay, in accordance with the tables framed for the purpose, for the insurance of their lives or the purchase of deferred monthly allowances.

Persons proposing to purchase immediate or deferred annuities, payable half-yearly, must provide at their own cost such certificates of birth or baptism, or other evidence of age as shall be required of them; and, inasmuch as the premiums fixed by the tables framed for the grant of such annuities do not include any provision for costs and charges, must pay, at the time of purchase, a fee of 1s. for every 1l. of annuity purchased.

The number of insurances in force at the end of 1865 was 560, and the total amount insured 41,734l.; 94 immediate and 54 deferred annuities were purchased, or in course of purchase, at the same date. The existence of the Post Office Annuity and Insurance offices is not yet generally known by the working classes of the country; but there is little doubt that in the course of a few years the industrious classes will largely avail themselves of the advantages offered in the two branches of insurance and annuities.

(d.) *Friendly Societies.*—In his last report, the Registrar of Friendly Societies states that, 'the objects for which Friendly Societies might have been established under the statutes applicable to such societies were limited, in the first instance, to the insuring a sum of money to be paid on the birth of a member's child, or on the death of a member, or for the funeral expenses of the wife or child of a member; for the relief or maintenance of the members, their husbands, wives, children, brothers or sisters, nephews or nieces, in old age, sickness, or widowhood, or the endowment of members or nominees of members at any age; and for any purpose which should be authorised by one of Her Majesty's principal Secretaries of State, as a purpose to which the powers and facilities of the Act ought to be extended. Under this provision, the purposes to which the statutes were originally applicable have been very considerably enlarged; the Secretary of State has authorised their extension to assisting members when they are compelled to travel in search of employment; to granting temporary relief to members in distressed circumstances; to granting relief and maintenance to members in case of lameness, blindness, or bodily hurt through accident; to the purchase of coals and other necessities to be supplied to members; to accumulating at interest for the use of any member the surplus fund remaining after providing for his assurance; to provide relief in case of shipwreck, or loss or damage to boats or nets, and to assuring the members against loss by disease or death of cattle employed in trade or agriculture, and for the establishment of working men's clubs.' All these purposes have been adopted, and societies for carrying

out one or more of them are in existence in different parts of the country. In December 1865, the Registrar of these societies sent out 22,834 forms of Annual Returns of the general statement of the funds and effects of friendly societies, and the same number of forms of return of sickness and mortality required from friendly societies pursuant to 18 and 19 Vict. c. 63 s. 45. Of the Annual Returns, only 10,345, and of the Quinquennial Returns, only 7,706, were returned to him previous to July 1, 1866; 170 of which omitted to give the name of the society and place where held. In the case of the non-return of the general statements, the officers are liable to a fine not exceeding 20s.; but there is no fine or penalty for the omission to send the Quinquennial Return of sickness and mortality. The 10,345 returns show the number of members to be 1,374,425, and the amount of funds 5,362,028l.

(e.) *Co-operative Societies.*—From the returns made by 417 of these societies to the Registrar, under 25 & 26 Vict. c. 87, for the year ending December 31, 1865, it appears that the—

Number of members was	148,586
Number of members admitted during the year	29,182
Number of members withdrawn during the year	11,815
Total amount received for or credited to shares, from commencement of society	£ 1,017,106
Amount received on shares during the year	307,356
Amount withdrawn by members during the year	180,812
Amount of share capital on December 31, 1865	761,313
Amount of loan capital on December 31, 1865	112,733
Amount received on loans during the year	34,631
Loans repaid during the year	19,101
Amount paid for interest during the year	33,686
Cash paid for goods bought in the year	3,063,088
Cash received for goods sold in the year	3,337,837
Profit realised in the year	279,226
Total amount of expenses during the year including wages, rents, rates, taxes, and all incidentals of work and repairs, &c.	190,538
Amount of cash in hands of bankers, treasurers, and officers on December 31, 1865	136,923
Total amount or value of assets and property of societies on December 31, 1865	1,105,685
Total amount of liabilities of societies on December 31, 1865	273,480

A very small number, however, of the above societies come within the meaning of the word

'co-operative,' as applied to handicrafts—the majority of them being co-operative stores for supplying groceries, &c. &c. at wholesale prices. They nevertheless offer very considerable advantages to the working-classes, by enabling them to supply their wants at the stores at a much cheaper rate than they could do at the shops of retail tradesmen; whilst the payment of ready-money (generally required at the stores) conduces to habits of frugality on the part of the purchasers.

(f.) *Loan Societies*.—From the returns made by 856 of these societies to the Registrar, under 3 & 4 Vict. c. 110, for the year ending December 31, 1865, it appears that the—

	£
Amount actually advanced and paid by depositors or shareholders was	253,523
Sums in borrowers' hands on December 31, 1865	518,866
Amount circulated in the year	857,844
Number of applications for loans in the year	184,171
Number of borrowers to whom loans were granted in the year	170,318
Amount paid for forms of application and inquiry in the year	10,435
Amount paid for interest by borrowers or sureties in the year	42,140
Gross profits, being amount received from borrowers, and money paid for forms of application and inquiry, in the year	58,509
Expense of management in the year	21,345
Interest paid to depositors or shareholders, in the year	32,859
Net profits, after deducting interest paid to depositors or shareholders, and expense of management, in the year	6,391
Number of summonses issued in the year	13,208
Number of distress warrants issued in the year	2,101
Amount for recovery of which summonses were issued in the year	31,586
Amount recovered in the year	23,991
Amount of costs incurred by societies in the year	2,940
Amount of costs paid by borrowers or sureties in the year	2,390

(g.) *Benefit Building Societies*.—These societies exist in many parts of the kingdom, but there are no returns of the actual number of their members, nor accounts of their management; it is nevertheless well known that these societies possess many thousands of members, and that their operations are also very extensive.

(h.) *Land Societies*.—Land societies were originally established chiefly for a political purpose, namely, that of enabling members of all classes,

and especially of the humbler classes, to obtain cheaply the freehold franchise in counties. The principal object of these societies at the present date, however, is that of affording to the same classes the means of becoming possessors of freehold estates, and of building houses upon them. The societies, in the first instance, purchase large estates, which they sell again to members, to whom they also make advances of money for building purposes. Both the purchase money of the land and the amount of the advances may be repaid to the societies by the members in instalments, extending over a period of generally about ten years.

In some of the societies, in which members must become shareholders, in addition to the other advantages afforded, they participate in the ordinary profits of the company. There are no complete returns of the transactions of the land societies, but some idea of their importance may be gathered from the following figures extracted from the last report of one of the largest of the societies, viz. the 'Conservative Land Society':—

Total number of shares issued from September 1852 to Michaelmas 1866	No. 25,674
Value of land sold from formation of society to Michaelmas 1866	£ 493,091

The operations of the 'National Freehold Land Society' and of the 'British Land Company' are even more extensive than those of the 'Conservative Society.'

The main point to be noticed is, that by the aid of these societies industrious artisans can become, in the course of a few years, possessors of small plots of freehold ground with houses upon them rent-free.

(i.) *Working Men's Clubs*.—By the exertions of the 'Working Men's Club and Institute Union' about 300 clubs, containing 60,000 members, have been established within the past five years. Forty-one of these clubs are situated in the metropolitan districts. The Union states that this is only the first-fruit of what it hopes to accomplish, in elevating the working man, and in drying up the sources of many of those evils which various other benevolent undertakings aim only to palliate. The object of the Union is to help working men to establish clubs and institutes, where they can meet for conversation, business, and mental improvement, with the means of recreation and refreshment, without being dependent for these purposes upon the public-house.

Considering the vast improvement that has taken place in the habits of the upper and middle classes of society during the past half century, it does not seem unreasonable to hope that a corresponding improvement may manifest itself in the lower classes of society, and that these clubs may become the means, to a great extent, of effecting this desirable object.

PART II.—BRITISH COLONIES AND DEPENDENCIES.

Statistical Returns exhibiting the Condition of the British Colonies and Dependencies, in the year 1864.

Colonies and Dependencies	Area	Total Population	Finances		Public Debt	Trade				
			Gross Revenue	Gross Expenditure		Shipping	Imports, including Bullion		Exports, including Bullion	
						Total Tonnage entered and cleared	Total	From United Kingdom	Total	To United Kingdom
	Sq. Miles	No.	£*	£*	£*	Tons*	£*	£*	£*	£*
<i>In Europe.</i>										
Malta	115	*136,339	169	163	189	2,235	1,762	40	1,004	625
Gibraltar	18	*15,462	36	35	—	2,275	2,600	1,700	2,250	171
<i>In Asia.</i>										
India	1,004,616	143,271,210	44,613	44,982	98,518	4,116	50,108	23,214	66,896	44,971
Ceylon	24,700	1,892,540	868	1,843	350	1,070	5,527	1,652	3,112	2,015
Mauritius	708	310,050	638	602	600	558	2,583	825	2,250	1,089
Labuan	45	2,373	8	8	—	21	84	—	48	—
Hongkong	29	119,321	133	159	—	2,046	no returns		no returns	
<i>In Africa.</i>										
Natal	14,397	152,704	152	119	100	64	592	441	220	187
Cape of Good Hope	104,931	267,096	588	634	715	541	2,493	1,777	2,614	1,626
St. Helena	47	6,860	23	23	—	136	123	55	27	25
Gold Coast	6,000	150,000	—	—	—	—	no returns		no returns	
Sierra Leone . . .	468	41,497	49	51	2	98	190	140	202	24
Gambia	20	6,748	17	18	6	66	105	45	132	27
<i>In America.</i>										
<i>North America.</i>										
Canada	331,280	2,507,657	2,295	2,175	12,368	2,089	9,296	4,382	8,850	3,068
New Brunswick . .	27,037	252,047	214	176	2,767	1,412	1,864	750	1,053	569
Nova Scotia	18,670	30,857	200	199	969	1,630	2,521	1,082	1,435	66
Prince Edward Island . .	2,173	80,857	44	38	68	302	338	154	203	37
Newfoundland . . .	40,200	122,638	125	125	177	281	1,067	455	1,111	283
British Columbia . .	200,000	11,816	104	117	164	108	500	—	1,219	—
Vancouver's Island . .	13,000	23,000	71	74	40	232	743	292	80†	—
Bermuda	24	11,461	31	27	—	280	371	127	143	64
Honduras	13,500	25,635	31	28	22	84	291	196	373	218
<i>West Indies :</i>										
Bahamas	2,921	35,487	107	103	13	389	5,346	1,219	4,672	3,511
Turk's Island	—	4,372	13	13	—	101	70	13	54	2
Jamaica	6,400	441,255	309	315	804	284	1,143	628	947	813
Virgin Islands	57	6,051	2	2	4	8	8	—	12	—
St. Christopher . . .	103	24,440	19	21	—	50	189	60	125	103
Nevis	50	9,822	5	4	3	15	28	6	16	10
Antigua	183	36,412	35	36	20	43	178	70	79	64
Montserrat	47	7,645	4	4	5	10	18	—	19	14
Dominica	291	25,065	14	15	3	15	44	15	49	43
St. Lucia	250	26,705	13	13	18	20	90	31	111	101
St. Vincent	131	31,755	20	20	3	31	136	54	156	143
Barbadoes	166	152,727	107	104	23	280	910	363	926	549
Grenada	133	31,900	20	17	9	34	121	66	153	140
Tobago	97	15,410	8	10	4	11	50	17	64	57
Trinidad	1,754	84,438	207	193	245	270	884	426	1,101	912
British Guiana	76,000	148,026	311	270	594	317	1,509	888	1,845	1,589
Falkland Islands . . .	7,600	566	9	7	—	50	19	19	10	10
<i>In Australia.</i>										
New South Wales . . .	323,437	358,278	1,985	2,327	6,073	1,254	9,386	3,856	8,117	2,559
Victoria	86,831	541,800	2,800	2,883	8,444	1,262	14,975	7,899	13,898	5,300
South Australia	383,328	126,830	809	645	900	321	2,413	1,218	3,305	919
West Australia	978,000	15,691	72	71	2	94	169	110	112	45
Tasmania	26,215	89,977	335	319	530	248	908	348	975	421
New Zealand	106,259	98,971	1,381	1,757	1,300	800	7,000	2,700	3,500	1,500
Queensland	678,000	34,885	502	439	549	246	2,268	507	1,247	355

* In the above table the population of Malta and Gibraltar is exclusive of military. The figures for finances, debt, imports and exports are stated in *thousands* of pounds sterling, and for shipping in *thousands* of tons. The shipping refers only to the foreign trade.

† To United States only.

The present sketch of the condition of the United Kingdom would be incomplete without a reference to the numerous Dependencies of the British crown. The advantages which the parent State derives from her vast colonial possessions are many. On the one hand they afford an outlet for the surplus population of the mother country, and also furnish large supplies of raw materials, which are greatly needed by home manufacturers; while, on the other hand, they are large consumers of British produce and manufactures.

Again, it is no small advantage to a great commercial nation, like England, to possess in all parts of the world, ports where her merchantmen may ride in safety through the passing storm, or obtain shelter from an enemy's cruiser in time of war.

Another, though not by any means the least important advantage Great Britain derives from her colonial possessions is, the world-wide diffusion of the English language, religion and form of government. From north to south and from east to west, the British sceptre sways over an empire on which it may be truly affirmed the sun never sets, and which numbers for its subjects upwards of one hundred

and fifty million souls, who are all more or less subject to British laws, customs, and influence.

The principal trade products of the more important colonies are given below:—

India. Coffee, raw cotton, dyes, hides, jute, oils, opium, rice, saltpetre, seeds, Cashmere shawls, raw silk, spices, timber, and woods — *Ceylon.* Cinnamon, coffee, cocoa-nut oil. — *Mauritius.* Rum, sugar.

Natal. Hides, ivory, and wool. — *Cape of Good Hope.* Copper ore, skins, wine and wool. — *Canada.* Animals, animal produce, agricultural produce, fish, pearl and pot ashes, and timber. — *Prince Edward Island.* Fish, grain, and cattle. — *Newfoundland.* Codfish, oils, and seal-skins. — *Jamaica.* Coffee, ginger, pimento, rum, sugar, and logwood. — *Barbadoes.* Fish, molasses, rice, rum, and sugar. — *Trinidad.* Cocoa, molasses, rum, and sugar. — *British Guiana.* Molasses, rum and sugar.

New South Wales. Gold, hides, tallow, and wool. — *Victoria.* Gold, tallow, and wool. — *South Australia.* Copper, corn, gold, and wool. — *New Zealand.* Gold and wool. — *Queensland.* Gold, hides, tallow, and wool.

STATISTICAL NOTES ON THE INDUSTRIES AND COMMERCE OF THE UNITED KINGDOM,

ARRANGED ACCORDING TO THE GROUPS AND CLASSES ADOPTED FOR THE
PARIS UNIVERSAL EXHIBITION OF 1867.

GROUP II.

(CLASSES VI.-XIII.)

APPARATUS AND APPLICATIONS OF THE LIBERAL ARTS.

Class VI.

PRINTING AND BOOKS.

THE art of printing has been brought to great perfection in the United Kingdom; and perhaps one of the best proofs of its development is exhibited in the daily production of journals like the 'Times,' and other leading newspapers. The mere fact of possessing the power to compile and print many thousands of copies of such papers in a few hours is sufficient to mark the advanced position of the printing trade in England.

Among the causes which have recently led to the perfection of printing in this country, the abolition of the stamp duty on newspapers and of the excise duty on paper are the most conspicuous. The removal of these duties enabled newspapers, equal in size to the old ones, to be produced and sold for a penny; and the result has been that, whilst newspapers have been placed within the reach of the bulk of the population, great improvements have been introduced in the various processes connected with their production. The increased education of the various classes of the people has also led to a great demand for printed books; and without depreciating the works of a superior class, the vast production in recent years of cheap printed books for purposes of instruction and amusement cannot be overvalued. The arts of engraving and of chromolithography have at the same time reached a high degree of perfection, as will be seen by inspecting the specimens exhibited.

The number of persons engaged in the several branches of the printing trade, according to the census of 1861 was:—

In England and Wales	30,590
Scotland	4,470
Ireland	2,845
Total	37,905

Of this number, 13,937 persons were engaged in the printing trade of London.

In London, the established scale of printers wages is fixed as follows:—

Compositors	} 36s. per week of 60 hours;
Pressmen	
Machinemen	

with an allowance of 3*d.* extra per hour for overtime between the hours of 9 p.m. and 8 a.m. on week days: no charge to be made of less than 1*s.* extra between the hours of 10 p.m. and 6 a.m. on week days. Sunday work is paid at the rate of 6*d.* extra per hour, but in no case is the workman to receive less than 2*s.* 6*d.* extra.

In many large printing-offices book work is paid for by the piece, and is not generally conducted on the establishment wages. Compositors so employed may earn from 20*s.* to 50*s.* per week, according to the nature of the work and the skill and industry of the workman.

Newspaper work is carried on by piece-work at irregular hours.

The average rates of wages paid in Edinburgh in the year 1866 were:—

Compositors	20 <i>s.</i> to 40 <i>s.</i> }	Per week of 57 hours.
Pressmen	26 „ 28 }	
Apprentices	3 „ 20 }	

The value of books and prints &c. imported into and exported from the United Kingdom in the year 1865 was—

	Imported	Exported
Books	£119,486	£511,388
Prints, Engravings, &c.	36,525	30,936

There are no returns of the number of printed books annually produced. The number of registered newspapers and periodicals in each division of the United Kingdom in the year ended 30th June 1864, was:—

In England	1,307
Wales	60
Scotland	133
Ireland	157
Total	1,657

The principal improvements since the year 1851 noticed by the jury on Class 38 of the London Exhibition of 1862, were the introduction of machinery for casting type, in place of casting by hand, effecting a great saving of labour; and of type-composing and distributing apparatus; the introduction of horizontal printing presses; and the application of stereotyping to the rapid, safe, and economical production of newspapers having a large circulation. The general excellence of typography, even among the cheap works, was also commended, the distinctness of the types and cleanness of the working being very noticeable. In colour-printing much improvement was observable, and in lithography, and especially chromolithography, the advance was still more marked.

Some idea of the progress that has been made in the issue of 'new editions of books already known' may be gathered from the fact of a recent issue of Shakspeare's complete works for one shilling, and of the Waverley Novels at sixpence per volume.

Class VII.

PAPER, STATIONERY, AND BINDING MATERIALS.

1. The principal industry to which this class relates is that of paper, and it is one of great importance. Paper is made in several parts of England; the paper mills in the county of Kent having been long celebrated for the production of fine writing and drawing papers. There is also a large manufacture of the coarser descriptions of paper at Newcastle. Paper is also made, though to a less extent, in Scotland and Ireland. The number of licensed paper-makers in each division of the United Kingdom in the year 1865 was:—

In England and Wales	316
Scotland	56
Ireland	20
Total	392

Of the other articles comprised in this class, ink for writing and printing, sealing-wax, pens and other articles for the writing table, registers and water colours, each constitute a special and important trade, though with the exception of the steel pen trade no exact information exists as to the total number of persons who are employed in the manufacture of the several articles above alluded to. The number of persons engaged in the production of some of these articles in London (exclusive of workmen) is as follows:—

Ink makers—Of printing ink	21
writing ink	43
Sealing-wax makers	24
Quillpen makers, &c..	9

There are no returns of the number of operatives employed by the above manufacturers.

As a natural consequence upon the vast annual production of books in the country, the trade of bookbinding, also included in this class, is very extensive, and is carried on in connection with the publishing trade at the chief towns of the kingdom.

The centre of the British steel pen trade is at Birmingham, and according to a report made by Mr. Timmins to the British Association held at that town in 1865, the actual number of steel pen manufactories was 12; the number of men employed 360; of women and girls 2,050; horse-power, about 330. The weekly make of pens 98,000 gross. The quantity of steel used per week, from 9½ to 10 tons. The value of the ordinary pens ranges from 1½d. to 1s. per gross; of barrel pens from 7d. to 12s. per gross, and other kinds of higher price according to size and finish.

Most of the processes of pen-making are performed by hand-presses to cut out the blanks, to pierce the holes, to form the nib, to emboss the pattern and to mark the name. Self-acting machinery being only used for the commonest descriptions of pens.

The condition of the workpeople is satisfactory, the factories being very healthy. The wages of girls range from 5s. to 12s., some from 2s. 6d. to 3s. 6d.; while skilful and older workwomen earn from 15s. to 20s. per week. Men earn from 18s. to 25s.; boys, 4s. 6d. to 8s., if skilful, 8s. to 16s. Skilled males, adult, earn 30s. to 80s. and even 90s. to 100s. per week. The hours of labour vary from 52½ to 57 per week.

2. The greater proportion of the raw material employed in the manufacture of paper is obtained in the country, although a considerable quantity of rags and other paper-making materials is annually received from abroad. During the past ten years numerous substances have been proposed as a substitute for rags in paper-making, but of the whole number only esparto and straw have hitherto been thus used in large quantities.

The following table shows the quantity of rags and other descriptions of paper-making stuffs imported into the United Kingdom during the last four years:—

	1862	1863	1864	1865
	Tons	Tons	Tons	Tons
Rags, linen, and cotton	21,966	25,287	23,732	18,273
Esparto and other vegetable fibre.	878	19,326	43,403	52,324
Old ropes, &c.	932	736	528	463
Pulp.	166	233	156	94
Total imports	23,942	45,582	67,819	71,154
Re-exports	3,513	1,510	243	1,505
Left for consumption	20,429	44,072	67,576	69,649

It will be observed that the large increase in the above table is due to the increased importation of esparto, which is received from Spain. It is used for making common and printing papers, for which there has lately been so great a demand.

3. There are no returns of the number of persons employed in the paper trade at the present time. According to the census returns of the year 1861 the number of persons so engaged was:—

	Males	Females	Total
In England and Wales	7,746	5,611	13,357
Scotland	1,648	2,773	4,421
Ireland	289	113	402
	9,683	8,497	18,180

4. The number of bookbinders and book-folders at the same date was:—

	Males	Females	Total
In England and Wales	6,556	5,364	11,920
Scotland	1,176	1,194	2,370
Ireland	448	686	1,134
	8,180	7,244	15,424

A large proportion of the bookbinding trade is carried on in the Metropolis. In 1861, 3,691 males, and 4,063 females, were thus employed in London.

It must be borne in mind that both these trades have increased since 1861.

According to a return furnished to the Board of Trade in 1866, by the Edinburgh Chamber of Commerce, the average rates of wages paid to operatives in the paper-making industry in that district were:—

	Per week
To Machinemens	20s. to 22s.
Enginemens	17s. „ 20s.
Finishers	12s. „ 18s.
Bleachers	16s. „ 20s.
Rag cutters	13s. „ 16s.
Sizers	17s. „ 18s. 6d.
Dryers	15s. „ 16s. 6d.
Paper cutters	15s. „ 18s.
Millwrights	22s. „ 28s.
Firemen	15s. „ 18s.
Labourers	11s. „ 17s.

Hours of labour, ten to twelve per day.

There are no returns of the rates of wages paid at the paper mills in the neighbourhood of London; the rates vary considerably, but, as a rule, they are believed to be higher than those above quoted.

5. A considerable increase in the quantity of paper imported has taken place since 1860, which is owing in a great measure to the abolition of the duty on paper.

		Foreign Paper (except Hangings)		
		Imported	Exported	Left for Consumption
		Cwts.	Cwts.	Cwts.
Quantities	In 1860	42,446	9,217	33,229
	1865	239,707	24,537	215,170
Value	£ 1860	125,383	25,995	102,388
	1865	494,222	57,477	436,745

6. The quantities and value of British paper (except hangings) exported in the same period was:—

Quantities	In 1860	cwts.	112,514
	1865	„	141,075
Value	£ 1860	£	450,589
	1865	„	447,741

On comparing the above tables it will be noticed that the descriptions of paper imported are considerably cheaper than those exported.

The quantity of British rags and paper-making stuffs exported in the year 1865 amounted to 6,704 tons.

The value of British stationery (other than paper) exported from the United Kingdom during the five years 1861–65 was:—

1861	£	287,000
1862	„	285,000
1863	„	342,000
1864	„	360,000
1865	„	405,000

7. The use of steam as a motive power has become almost universal in England; and although the price of labour is higher in England than on the Continent, yet owing to the care and skill of the English workmen, and to the great superiority of the machinery employed, it is doubtful whether the cost of the manufacture of paper in England be not as low as in other countries.

8. Mr. Richardson, of Newcastle, states that the principal improvements that have been made in the manufacture of paper of late years, are in the details and general efficiency of the machinery, whereby a much larger quantity of paper is made with the same apparatus than formerly, and in the superior management of the chemical processes, whereby a material that formerly was entirely useless, is now worked up into common shop papers, and inferior rags are cleaned and bleached into a good white paper, which formerly were made into coarse paper. Nearly all paper for newspapers contains a portion of esparto, some having only one-fourth rag material.

On the abolition of the stamp duty on newspapers a large class of cheap journals came into existence, and a great demand for cheap paper was created. This demand has been met partly by the manufacture of paper with esparto, &c. as above stated, and partly by importing cheap paper from abroad. The jury at the London Exhibition of 1862 observing the

growing tendency to manufacture inferior qualities of paper, wisely lifted their voice against its use for works that were intended to endure any length of years, but for purposes of the day the supply of cheap paper is an inestimable boon to the masses of the community.

Great improvement has taken place in all descriptions of bookbinding within the past few years, more especially in the application of colour and ornament to the cheaper kinds. So great has been the extension of this trade, that the introduction of machinery for performing the operations of embossing and blind-tooling became necessary in order that the bookbinder might keep pace with the demands on his trade.

Class VIII.

APPLICATIONS OF DRAWING AND MODEL-
LING TO THE COMMON ARTS.

Although there are no records of the actual progress made of late years in the several branches of trade falling within the limits of this class, it may be generally stated that considerable improvement has been shown in the style of designs applied to manufactures, as well as a greater amount of taste displayed in the arts of modelling, die-sinking, and seal-engraving.

As the designs for manufactures are, for the most part, privately executed, the only means of testing the actual advance made is that of public exhibitions; and it rests, therefore, with the jurors on the several classes of manufactures at the present Exhibition to decide what amount of progress has been made by English designers since the last Paris Exhibition of 1855. It is to be hoped that in those decisions the Department of Science and Art may find handsome reward for the labours in which, for many years, it has been engaged, namely, in the extended application of art to all branches of national manufacture.

Class IX.

PHOTOGRAPHIC PROOFS AND APPARATUS.

Regarded in the light of a productive industry and apart from its importance as an art, photography in its various branches affords employment to some thousands of the population.

It does not fall within the limits of these remarks to trace the history of its invention and rapid development, but, as was stated by the reporter on photography, &c., at the London Exhibition in 1862, 'it will suffice to say that there is hardly a branch of art, of science, of economics, or indeed of human interest in its widest amplification, in which the applications of this art have not been made useful.'

There are no statistics of the number of

persons at present employed in the several branches of the trade of photography, but, according to the census of 1861, 2,957 persons were engaged as photographic artists at that period.

The number of persons engaged in the several branches of the trade in London (exclusive of workmen) is as follows:—

Photographic artists	284
Apparatus makers	38
Album makers	14
Photographic chemical makers	17
" drawing, mounting, &c.	6
" paper makers, &c.	15
" printers	7
" publishers	16
Dealers in photographic mate- rials	} 28

Although the jury on photography at the London Exhibition considered that great progress had been made since the preceding Exhibition in 1851, they yet regarded the art as capable of far greater attainments, and believed that the next International Exhibition would show results, to which those they then recorded would 'bear but a small proportion in beauty, vastness, and importance.'

Class X.

MUSICAL INSTRUMENTS.

The manufacture of musical instruments forms an extensive trade in the United Kingdom. The chief descriptions of instruments made are organs, pianofortes, harps, and band instruments, of which pianofortes may be considered as holding the most important position. The pianofortes of London makers have long been noted for the excellence of their tone and the superiority of their workmanship. The improved methods of construction adopted of late years by English organ-builders have tended to secure for these instruments a high reputation both at home and abroad.

There are no accurate statistics of the total number of persons engaged in the manufacture of the several descriptions of musical instruments in the United Kingdom, but the following table of the value of the imports of these articles during the five years 1861–65 shows that the home production is not equal to the home demand:—

Value of the several Descriptions of Musical Instruments imported into the United Kingdom.

Years	Pianofortes	Harmoniums and Scrapphines	Musical Boxes	Other kinds	Total
	£	£	£	£	£
1861	24,542	33,971	13,774	91,271	163,558
1862	43,343	53,681	13,494	80,388	190,906
1863	97,378	18,372	12,495	80,943	209,188
1864	111,234	15,548	17,015	80,452	224,249
1865	66,702	68,313	30,384	78,414	243,813

The imports of pianofortes and harmoniums are chiefly from France.

The number of manufacturers of musical instruments in London (exclusive of workmen) is as follows :—

Description of Instruments	No. of Persons
Concertina	11
Drum	9
Flute and Flageolet	14
Guitar	4
Harmonicum	1
Harmonium	28
Harp	4
Horn, trumpet, and bugle	7
Military	10
Seraphine	3
Violin	8
„ bow	8
Violoncello	2
Musical boxes	5
Pianofortes, &c.	286
Organ	43
String makers	17
Various	47

The value of musical instruments of British manufacture exported during the five years 1861–65 was—

Years	Pianofortes	Other Kinds	Total
	£	£	£
1861	not stated	not stated	147,144
1862	82,615	69,155	151,770
1863	112,821	53,972	166,793
1864	107,871	59,980	167,851
1865	93,071	59,757	152,828

Class XI.

MEDICAL AND SURGICAL INSTRUMENTS AND APPARATUS.

Although the articles included in this class cannot be said to represent an extensive industry of the country, they yet possess a value which can hardly be tested by a money standard. Among the arts there is none more noble than that of the surgeon, and consequently the instruments he uses in his occupation necessarily partake of the honour which attaches to his profession.

Almost the whole of the surgical instruments used in England are of home manufacture; and owing to the different modes of treatment adopted in different countries but a small interchange in this class of articles takes place between the United Kingdom and other countries. The bulk of the English surgical instruments are made in Sheffield, but the productions of the London houses are considered to be unrivalled by those of any other makers in the world. The number of surgical instrument manufacturers in London is 95; of surgical instrument case makers, 5; and of surgical bandage makers, 25. The value of surgical and anatomical instruments imported in the year 1865 was 566*l.*, and exported, 12,752*l.*

Class XII.

MATHEMATICAL INSTRUMENTS AND APPARATUS FOR TEACHING SCIENCE.

The manufacture of the articles comprised in this class is considerable, but in the absence of any industrial statistics no means exist of arriving at the exact position of the several branches of the trade in the United Kingdom.

The number of persons engaged in connection with this branch of trade in London (exclusive of workmen) is as follows :—

Mathematical instrument makers	72
„ „ case makers	7
Nautical instrument makers	32
Philosophical „ „	78
Opticians	204

In addition to the home production, there is a foreign trade in scientific instruments. The value of such instruments and apparatus imported into the United Kingdom, and of British articles of the same description exported during the year 1865 was—

	Imports	Exports
	£	£
1865	14,224	71,058

Class XIII.

MAPS AND GEOGRAPHICAL AND COSMOGRAPHICAL APPARATUS.

The most important works deserving of notice in this class are the maps produced by the Ordnance and Geological surveys. The former are produced on three scales, that on the scale of one inch to each mile being an excellent map of the country. The geological map of the United Kingdom, part of which was exhibited at the Paris Exhibition in 1855, is pronounced by all competent judges to be unrivalled. Since 1855 some of the most important mineral districts have been surveyed, and the maps relating to them completed. The maps for the northern counties of England and for Ireland are being conducted on the scale of six inches to the mile, more than one-half the area of England and Ireland has already been surveyed; and considering the nature of the work, great progress is annually made.

There are no means of ascertaining the value or extent of the general map trade of the country, but it is of considerable importance, and the works produced are of a very high character.

The number of persons (exclusive of workmen) connected with this branch of trade in London at the present date amounts to—

Map sellers and publishers	24
„ makers, colourers, and mounters	44
„ engravers	18

The value of maps and charts exported in the year 1865 amounted to 6,571*l.*

GROUP III.

(CLASSES XIV.-XXVI.)

FURNITURE AND OTHER OBJECTS FOR THE USE OF DWELLINGS.

Class XIV.

FANCY FURNITURE.

No branch of native industry has profited more by International Exhibitions than that of the fancy furniture trade. From the beginning of the present century until the year 1851, comparatively little progress was made in the manufacture of household furniture in the United Kingdom; but since that date a decided improvement has manifested itself, not only in regard to economy of production, but also in respect to design and ornamentation, and the better adaptation of the various articles to the uses for which they are intended. It requires but a slight insight into modern domestic life in England to perceive how great a change has taken place within the last ten or fifteen years in the internal embellishment of the dwelling-houses of the upper and middle classes of society; and there can be little doubt that the extension of art education will lead still further to the production and appreciation of articles which combine the three requisites of fitness of purpose, beauty of design and ornament, and excellence of workmanship.

The number of manufacturers engaged in London in the several branches of the fancy furniture trade (exclusive of workmen) is as follows:—

Cabinetmakers	812
Upholsterers	486
Carvers and gilders	342
French polishers	142
Looking-glass makers	61
„ „ silverers	24
Cabinet carvers, in-layers, and liners	108
Bedstead makers	43
„ „ iron	44
Chair, sofa, and stool makers . .	252

The value of furniture of wood and cabinet wares imported into the United Kingdom in the year 1865 amounted to 128,925*l.*: and of British furniture and cabinet wares exported, to 289,887*l.*

Class XV.

UPHOLSTERY AND DECORATIVE WORK.

The progress alluded to in the manufacture of the articles in the previous class has necessarily extended to the objects comprised in this class. The increased wealth of the middle classes of the community has especially led to a greater demand for decorative work in the fittings of their dwellings. As regards church furniture, a notable improvement has taken place; the revival, in recent years, of the early styles of architecture almost necessitating a greater amount of ornamentation in the interior decoration of the edifices. The principal manufacture of moulded objects is that of papier-mâché, carried on chiefly at Birmingham, producing numerous articles of decorative furniture, and affording employment to some hundreds of workpeople. The average rates of wages earned are, for ordinary hands, from 10*s.* to 16*s.* per week; and for decorative artists, from 30*s.* to 50*s.* This latter class are stated to have derived considerable advantage from the instruction afforded at the Birmingham Local School of Art.

Class XVI.

CRYSTAL, FANCY GLASS, AND STAINED GLASS.

1. The chief descriptions of glass manufactured in the United Kingdom are plate, crown and sheet glass and flint glass wares. The principal glass manufactories are at St. Helen's in Lancashire; but there are very large works in other districts, especially those of Messrs. Chance, of Birmingham, and Messrs. Hartley, of Sunderland. Flint glass is also made in London. The glass bottle trade, principally carried on in the neighbourhood of Newcastle, is very extensive. Stained or painted glass is also manufactured in London, and at Sunderland and Birmingham. Glass for optical

purposes, though necessarily not forming a large branch of the trade, is made in the United Kingdom; and the productions of Messrs. Chance, of Birmingham, of glass for lighthouse purposes are well known throughout the scientific world.

Although the manufacture of this beautiful material now constitutes one of the staple industries of the country, it is only within the last twenty years that it has made any rapid development. Up to the year 1845 the excessive excise duties levied upon its manufacture, and the troublesome regulations necessary for collecting those duties, entirely retarded its progress; in fact between the years 1789 and 1844 the quantities of glass made and retained for consumption, instead of keeping pace with the increased population, rather declined than otherwise. Since the abolition of the duty on glass, however, the expansion of the trade has been very great, and the removal of the window tax in 1851 still further conduced to the welfare of the glass industry of the country.

2. The raw materials used in the glass trade are almost entirely obtained in the country, though in some branches Fontainebleau sand is employed.

3. There are no official statistics of the number of persons engaged in the British glass manufacture for a later date than 1861, in which year the following number of persons were thus occupied:—

	Males	Females	Total
In England and Wales . . .	13,809	1,237	15,046
Scotland	1,189	23	1,217
Ireland	231	31	262
Total	15,229	1,296	16,525

The following extracts from a report by Mr. H. Chance to the British Association at Birmingham in 1865, will show the importance of some branches of this industry at the present time. The weekly produce of plate glass is about 100,000 feet. There are seven manufacturers of crown and sheet glass, three of whom make seventy-five per cent. of the whole quantity produced. The number of workmen employed in these three works is stated to be 2,500, and the quantity of glass produced 17,000 tons. There are no complete statistics of the production of flint glass, the annual produce of this description of glass in the Tyne and Wear district only, is estimated at 10,000,000 pounds. Birmingham produces about 5 million, and Stourbridge 3½ million pounds annually. The make of glass bottles in the Tyne and Wear district in the year 1862 is stated by Mr. Swinburne to have been about 4,230,000 dozens.

4. The average rates of wages paid at Birmingham in 1866 in the manufacture of flint glass and articles for domestic purposes were:—

To Males.

Per week of 45 hours :	s.	d.	s.	d.
1st class	48	0	to 49	0
2nd class	42	0	„	44 6
3rd class	30	0	„	40 6
4th class	22	0	„	34 0
5th class	10	0	„	31 0
6th class				21 8
Per week of 55 to 60 hours :				
Glass cutters	24	0	„	32 0
Per week of 56 hours :				
Teazers, mixers, packers, &c.				25 0

To Females.

Per week of 50 hours :				
Employed as mixers, packers, &c.				10 0

In some branches of the glass trade the relations between employers and workmen, and the habits of the workmen themselves are open to great improvement. Mr. Swinburne states that the relation between master and man in the blown flint and bottle trades amounts to a chronic strike. Owing, besides, to an allowance, in addition to wages, termed 'drink money,' and which is daily spent in the purchase of intoxicating liquors, a general unsteadiness is induced in the habits of the workman, which, in the majority of cases, results in habitual inebriety. In other branches it is stated that the workmen possess considerable intelligence and education, and freely avail themselves of the various institutions established for the intellectual improvement of the working classes.

5. The subjoined table gives a complete account of the several descriptions of glass imported into the United Kingdom in the year 1865 :—

	Quantities Cwts.	Value £
Window glass (except plate)	264,956	211,246
Flint glass, cut, coloured, or ornamented	32,961	172,405
Flint glass, plain, including bottles	23,039	32,254
Plate glass	28,631	133,613
Silvered glass or mirrors	1,639	10,700
Bottles of green or common glass	17,113	8,984
Manufactures unenumerated	12,650	60,773
	389,149	629,975
	Lbs	
Beads and bugles of glass	3,365,221	178,310

The imports of window and flint-glass are principally from Belgium and Hamburg, and of plate and silvered glass from France and Belgium.

The re-exports of window glass and of beads in the same year were considerable, being 37,842 cwts. and 2,057,000 lbs. respectively.

6. Only a small proportion of the British export trade of glass, excepting bottles, is carried on with European States, the bulk of

the exports going to the United States and the British Colonies. Owing to the expensive nature of the packing cases required for its safe transmission, and the loss by breakage on unpacking, added to the freight and other costs of transport, any addition to its selling price in the shape of an import duty acts as a virtual prohibition to trade in this article, and as the rates of import duty at present levied in Europe are generally considerable, the absence of trade with that part of the world is easily accounted for, more especially in those states which are large producers and where cheap labour enables the native manufacturer to supply the home markets with cheap goods.

Although many markets have been and are thus closed to the British producers of glass, it will be seen from the following figures that the British export trade has made great progress during the last fifteen years:—

Years	Flint Glass	Window Glass	Common Bottles	Plate Glass
	Quantities			
	Cwt.	Cwt.	Cwt.	Cwt.
1851	25,900	16,459	329,025	See Value
1855	39,295	21,537	513,140	
1860	79,544	33,408	629,511	
1865	99,314	50,955	622,496	
Value				
	£	£	£	£
1851	110,666	22,223	174,318	20,743
1855	141,890	33,659	279,471	52,312
1860	222,380	44,063	324,189	62,566
1865	302,105	60,857	310,245	71,387

7. The greater proportion of glass is made by hand labour assisted by mechanical contrivances, the pressed glass manufacture is, however, chiefly carried on by machinery. Steam is also very generally employed in the processes of cutting, grinding, &c. in the flint glass trade.

8. Mr. Swinburne states that 'as regards glass processes generally, it cannot be denied that they present a great field for improvement.' Much progress has, however, been made in many branches of the trade, amongst which may be specially noted the increase in the size of plates, sheets, &c.; the improvement in the colour of glass, and the advance of the 'pressed' glass manufacture. The introduction of goods of this latter class has cheapened flint glass to such an extent, that almost the poorest of the population may be supplied with elegant articles of domestic use, which a few years ago were far beyond their reach.

The progress of the glass trade is mainly due, as has been before stated, to the repeal of the duties which formerly hampered its transactions. On the removal of those duties a great fall in the price of glass took place and a vastly increased consumption was the result. The following prices of the leading descriptions of glass before the repeal of the duty and at the

present time, as stated by Mr. H. Chance, afford an interesting proof of the benefits that have been derived from the abolition of the duty, and of the advancement of the glass industry generally. A mirror of plate glass 50 + 40 inches in 1844 cost about 10*l.*, in 1865 less than half the amount. Good crown glass, per crate, in 1844 cost about 12*l.*, in 1865 2*l.* 8*s.* Ordinary sheet glass, per foot, in 1844 1*s.* 2*d.* in 1865 2*d.* Had the glass duties existed in 1851 a Crystal Palace would have been almost an impossibility; on the other hand, the repeal of the window tax has led to an extended use of glass in buildings of every description and has materially added to the comfort and health of the population.

As regards the application of art to the glass manufactures of the country, the jury at the International Exhibition of 1862 stated that the greatest advance was shown in engraved glass. They also particularly noticed the progress made in the forms of articles in general use, which they attributed in a great measure to the taste nurtured by the Schools of Design throughout the country, to the endeavours of many manufacturers to encourage a better appreciation of form on the part of the purchasers, and to the general advance of the public in art knowledge, much of which they ascribed as being due to National and International Exhibitions, and especially to the latter, in which exhibitors learn from each other by competitions in the arts of peace.

Class XVII.

PORCELAIN, EARTHENWARE, AND OTHER FANCY POTTERY.

1. The manufacture of earthenware, which now forms one of the staple industries of the country, has been carried on in Staffordshire for more than two centuries. England, unlike most continental nations, does not possess any state manufactories for the production and development of the ceramic arts, and the trade is consequently left to the exertions of private enterprise. The chief centre of the earthenware manufacture is in Staffordshire, with branch trades at Glasgow, Worcester, Newcastle, and Lambeth. Almost every description of earthenware is made at the Staffordshire Potteries; Worcester produces chiefly a fine class of goods; Newcastle, second-class articles; and Lambeth principally stone-ware, such as bottles, jars, pans, pipes, &c. &c. There is also a large manufacture of fire-clay goods in the kingdom, which are made in considerable quantities at Newcastle and Stourbridge.

2. The raw materials used in the manufacture are chiefly produced in the country—in the counties of Dorset, Devon, and Cornwall. According to the official returns, the produc-

tion of clays and china stone in the year 1865 amounted to 374,358 tons. 751,566 tons of fire-clay were also raised in the counties of Stafford, York, Derby, &c. &c. The quantity of prepared clay annually consumed in the Staffordshire Potteries, is stated to be about 160,000 tons.

In addition to the clay, Mr. Coghill gives the following return of the other raw materials used in the Staffordshire district. 'The annual consumption of coals in the trade may be stated at 450,000 tons. To stain the clay and print the ware, about 67,000 lbs. oxide cobalt is used, and about 1,100 tons of borax and boracic acid to glaze it, and 12,000 ounces of gold are required to gild and embellish the same. The amount of calcined bone used in the manufacture of china is about 4,500 tons per annum, obtained principally from South America.'

3. The number of persons, as stated in the census, engaged in the earthenware and porcelain manufacture in the United Kingdom in the year 1861 was—

	Males	Females	Total
In England and Wales . . .	26,138	11,934	38,072
Scotland	1,922	595	2,517
Ireland	101	7	108
Total	28,161	12,536	40,697

There were also 3,471 males and 1,115 females engaged in the manufacture of tobacco pipes in the same year.

The number of operatives employed in the Staffordshire Potteries, as given by Mr. Coghill, was, in 1864, 27,878, of which number 10,598 were females.

4. The average rates of wages paid to operatives in the Staffordshire district in 1866 ranged:—

	Per day
For males	1s. 6d. to 7s.
„ females	1s. 6d. „ 1s. 8d.
At Worcester:	Per week
For males	16s. to 50s.
„ females	10s. 6d. to 14s.
At Newcastle:	
For males	10s. to 30s.
„ females	10s.

5. The importations of earthenware into the United Kingdom are very small, and the quantities of china and porcelain ware are not large, amounting only to 18,705 cwts., valued at 166,098*l.* in the year 1865. The greater part of these importations came from France.

6. The value of British earthenware and porcelain exported from the United Kingdom during the five years 1861–65 was—

	£
1861	1,070,000
1862	1,220,000
1863	1,341,000
1864	1,422,000
1865	1,442,000

Machinery is employed in some branches

of the trade, but not so generally as might be desired.

8. Considerable progress has been made, in recent years, in the manufacture of earthenware and porcelain; and the ordinary articles of domestic use now manufactured are celebrated for their cheapness, lightness of make, and excellence of finish. Much attention has also been given to the substitution of harmless for poisonous ingredients in glazes used in the manufacture, and very satisfactory results have been obtained.

The improvements in the design and execution of the superior kinds of articles now produced are due to the mutual efforts of some of the leading manufacturers, and to the instruction that has been afforded by the Schools of Art to the operatives in the manufacturing districts. A more general introduction of machinery would prove of great service in developing the earthenware industry of the country. The advance of the fire-clay branch of the earthenware trade has also been very considerable; 80 millions of fire-bricks alone are now produced annually in the Newcastle district, and about 30 millions at Stourbridge, in addition to retorts and pipes, &c., which are also made in large quantities.

Class XVIII.

CARPETS, TAPESTRY, AND OTHER STUFFS FOR FURNITURE.

1. The principal articles included in this class which are made to any extent in the United Kingdom, are carpets, furniture stuffs, oil-cloth, india-rubber matting and horse-hair tissues. The leading carpet fabrics of English make are the Jacquard 'Brussels' and the 'Tapestry' or printed carpets, the former being made chiefly at Kidderminster, and also at Halifax and Durham, and the latter at Halifax. Of the other descriptions of carpets, the 'Axminster' are made at Wilton; the 'Kidderminster' and patent 'Axminster' at Glasgow and other parts of Scotland; 'figure twills' at Durham; and the cheaper kinds of 'super' carpet and Dutch and felt goods in the West Riding of Yorkshire, &c. The manufacture of jute carpets at Dundee is now a trade of some importance. Cotton furniture stuffs are made at Manchester and woollen and worsted damasks at Halifax.

Oil or floor-cloth and oiled cloth for table covers, &c. are extensively used in the United Kingdom for domestic purposes as well as exported in large quantities. A considerable proportion of the trade is carried on in the neighbourhood of London, but the manufacture is also located in other parts of the kingdom.

Horse-hair tissues for seatings are made to some extent, although this article is not so generally used for furniture purposes as formerly. The manufacture of india-rubber

matting, &c. has considerably increased of late years.

2. The sources of supply of the raw material used in the carpet manufacture will be found noticed in the remarks to Classes 27, 28, and 30. Horsehair is imported in considerable quantities, chiefly from Russia and America. The importations of this article in the year 1865 amounted to 21,078 cwt., of the value of 106,938*l*. The principal raw materials employed in the manufacture of india-rubber matting, &c. are caoutchouc and gutta-percha. The former is imported largely from South America and the latter from Singapore and the Eastern Archipelago. The total quantities and value of these articles imported into the United Kingdom in the year 1865 were—

	Cwts.	£
Caoutchouc, raw	71,392	530,538
Gutta-percha	29,077	160,565

A large quantity of caoutchouc is re-exported, and the remainder, as well as the gutta-percha, in addition to forming the raw material of the matting trade, is used for an infinite variety of purposes.

3. With the exception of the carpet industry, no returns of the number of operatives engaged in the other branches of trade included in this class can be given. The jury on Class 22 at the London Exhibition in 1862 estimated the number of persons employed in the carpet trade in the United Kingdom at about 40,000.

4. The average earnings of the operatives employed was stated to have been in 1851 from 16*s*. to 28*s*. per week, but these are probably much below present rates. The total estimated value of carpets annually produced in the country will give some idea of the importance of the trade, as affording a means of employment to the working classes. The following figures were given by the jury at the London Exhibition in 1862 as an estimate of the carpet production in that year:—

	£
In Yorkshire	980,000
Kidderminster and neighbourhood	630,000
Durham, Kendal and locality	120,000
Somersetshire and Wiltshire	40,000
Scotland	340,000
Total	2,110,000

5. The following table shows the quantities and value of woollen carpets and rugs imported into the United Kingdom during the five years 1861-65:—

	Square yards	£
1861	61,869	27,538
1862	111,896	33,165
1863	83,696	30,743
1864	78,311	32,392
1865	98,936	39,247

6. The exportations of British carpets and

druggets are very large, the quantities and value during the four years 1862-65 amounted to—

Years	Carpets	Carpet Rugs	Druggets, or Felted Carpeting
Quantities			
	Yards	No.	Yards
1862	4,799,000	36,640	579,000
1863	5,582,000	45,907	676,000
1864	5,620,000	40,257	372,000
1865	5,284,000	60,991	459,000
Value			
	£	£	£
1862	620,700	14,737	50,515
1863	747,521	17,578	63,262
1864	825,038	14,782	36,400
1865	818,847	17,904	42,600

The United States is the chief consumer of British carpets—in 1865, 2,164,000 yards were sent to that country.

The exportations of British oil and floor-cloth in the year 1865 were:—

	Square yards	£
Oil-cloth, japanned &c.	2,094,000	138,459
Floor-cloth, including india-rubber floor-cloth	320,000	40,448

7. The manufacture of carpets is now principally effected by means of machinery, handloom Jacquard weaving having been almost entirely superseded by steam-power weaving.

8. That the carpet industry of the United Kingdom has made great progress since the year 1851 was clearly manifested by the improved taste, colour, and design of the articles exhibited in 1862 as compared with those displayed in the previous London Exhibition, whilst the extended use of steam-power has tended materially to increase the production of this class of goods. The rapid development of the manufacture of tapestry carpets by Messrs. Crossley, of Halifax, is, perhaps, one of the most important recent improvements in the carpet trade of the country. Durham, Glasgow, Halifax and Kidderminster each possess Schools of Art, and it cannot be doubted that the instruction afforded to the working classes in these schools must have a most beneficial effect upon the particular manufactures of the respective districts.

A considerable improvement in the patterns of floor-cloth has also been made since the year 1855.

Class XIX.

PAPER-HANGINGS.

1. The manufacture of paper-hangings has been established in the United Kingdom for considerably more than a century, and is carried on in the neighbourhood of London, at

Manchester, Edinburgh, and other parts of the country. The class of paper-hangings in which English manufacturers mostly excel are those made by machinery, which are so low in price as to be within the reach of the humblest of the community, and thus enable them to give a cheerful aspect to the walls of their dwellings.

2. A large quantity of paper, colours, wool, and metal are annually consumed in the manufacture of paper-hangings, but no records exist of the actual quantity so employed.

3. According to the census of 1861 the number of operatives engaged in the paper-hangings' trade in each division of the kingdom was:—

	Males	Females	Total
In England and Wales . . .	1,556	399	1,955
Scotland . . .	77	38	115
Ireland . . .	96	9	105
Total . . .	1,729	446	2,175

4. There are no general returns of the rates of wages paid in the paper-hangings' trade. A return by the Edinburgh Chamber of Commerce to the Board of Trade gives the rates of wages paid in that neighbourhood in 1866 as follows:—

	Per Week of 57 Hours
To colour mixers	s. 12
„ glaziers, &c.	15
„ block-printers and marblers	20 to 40

5. The quantities and value of paper-hangings imported into the United Kingdom in the five years 1861-65 were:—

Years	Paper-Hangings	
	Quantities	Value
	Cwts.	£
1861	2,975	15,395
1862	4,210	17,680
1863	5,177	21,740
1864	5,979	25,110
1865	5,684	23,873

France supplies the greater part of the paper-hangings imported into the country.

6. The quantities and value of British paper-hangings exported during the same period were:—

Years	British Paper-Hangings	
	Quantities	Value
	Cwts.	£
1861	13,415	105,984
1862	19,874	64,505
1863	25,874	84,403
1864	25,163	82,819
1865	32,893	109,320

7. The chief part of the cheaper descriptions of paper-hangings is produced by ma-

chinery, which has been very greatly improved of late years. The machines employed are capable of printing from 1,000 to 1,500 pieces each per day.

8. Up to the year 1846 the high import duty levied upon foreign paper-hangings had the effect of almost entirely excluding them from the English market, and the absence of competition was too surely followed by an absence of improvement on the part of the English makers. Since, however, the foreign competitor has been admitted on equal terms to the English market, a marked progress has been visible in the style and workmanship of English papers, whilst, on the other hand, an improved application of machinery to the manufacture has led to the production of beautiful paper-hangings at a very cheap rate.

Class XX.

CUTLERY.

1. England has long been famed for all descriptions of cutlery, the principal seat of the manufacture being at Sheffield. Cutlery is also made to a small extent in London and in other parts of the kingdom.

2. The steel used in the manufacture of cutlery is produced at Sheffield, principally from foreign iron. In 1862 the number of converting furnaces in that town was 205, producing annually about 79,000 tons of blistered steel; and the number of melting furnaces 2,437, producing about 52,000 tons of cast steel annually. Only a part of this production is used in the cutlery trade.

3. The jury on cutlery at the London Exhibition in 1862 stated that the increase in the number of workmen in the table-cutlery, razor, pen and pocket-knife, and scissor branches of the Sheffield trade, had not been so great between that date and the previous Exhibition in 1851 as formerly; but that owing to the more extended use of machinery, a larger quantity of table-knives was manufactured than in previous years.

The number of persons employed in the borough of Sheffield in the principal branches of the cutlery trade in 1864 was as follows:—

Branches of Trade	Males	Females	Total
Scissor makers . . .	1,089	331	1,420
File makers . . .	4,345	589	4,934
Sawsmiths . . .	1,232	—	1,232
Cutlers . . .	3,294	184	3,478
Blade makers, forgers . . .	1,797	—	1,797
Knife makers . . .	4,944	—	4,944
Razor makers . . .	817	—	817
Total . . .	17,518	1,104	18,622

4. The average rates of weekly wages paid in the principal branches of the trade at Sheffield in 1866 were:—

Table-knife Manufacture

Occupations	Wages	Hours of Labour
	<i>s.</i>	
Forgers	28	60
Strikers	24	60
Hafters	21	60
Grinders	30	60

Spring-knife Manufacture

Occupations	Wages	Hours of Labour
	<i>s.</i>	
Best Work		
Grinders	30	60
Forgers	30	60
Cutlers	25	60
Scale and spring makers	25	60

Scissor Manufacture

Occupations	Wages	Hours of Labour
	<i>s. s.</i>	
Forgers	20 to 30	60
Filers	20 „ 30	60
Grinders	27 „ 35	54
Finishers	22 „ 32	54

5. The value of British cutlery exported from the United Kingdom during the four years 1862–65 was:—

	£
1862	291,244
1863	304,119
1864	386,859
1865	402,294

6. Machinery is employed in some branches of the cutlery trade, but many of the most important operations are performed by hand labour.

7. Although no recent improvements of note have been made in the cutlery trade, the productions of Sheffield still maintain their renown for excellence of quality and workmanship, and for beauty of finish and design. A School of Art has been established in Sheffield since the year 1843, and the number of students receiving instruction in that school in the year 1865 was 1,763.

Class XXI.

GOLD AND SILVER PLATE.

The manufacture of articles in the precious metals is carried on in the chief towns of the kingdom, the large firms of the metropolis producing annually vast quantities of silver plate. The extensive use of late years of plated goods has tended to limit the operations of the trade in precious metals; the value of British-made plate, however, annually used in the country is estimated to exceed the sum of one million pounds sterling. There is also an export trade in this article, the value of which amounted in the year 1865 to 62,532*l*.

There are no statistics of the total number of operatives engaged in the production of the articles included in this class at the present time. The number of goldsmiths and jewellers in London is 159; and of chasers, 41.

Considerable progress in the application of art to the manufacture of works in precious metals has been made within the past ten years; but as regards outline and ornamentation, the further cultivation of purity in style is greatly needed by English designers of plate.

Class XXII.

BRONZES AND OTHER ART CASTINGS AND REPOUSSÉ WORK.

The manufacture of bronzes in the United Kingdom is of very limited extent. The scarcity of good English chasers has been attributed to the method of training adopted in the Schools of Design, which is calculated rather for the production of artists and sculptors than for that of good workmen in metal.

France supplies the greater part of the bronzes imported into the country, having furnished 55,168*l*. worth out of a total importation of 61,307*l*. in the year 1865.

Class XXIII.

CLOCKS AND WATCHES.

The manufacture of clocks and watches is chiefly carried on in London, and at Coventry, Liverpool and Manchester. The watches for which the English manufacturers are principally renowned are chronometers and other superior descriptions of watches, although vast numbers of cheap watches are made in the country. The best works are made in Lancashire, and a considerable exportation of watch-works is annually made to the United States, where they are cased and finished. According to the census of 1861 the following number of persons were engaged in the clock and watch trades in each division of the country:—

	Males	Females	Total
In England and Wales	20,221	536	20,757
Scotland	1,699	8	1,707
Ireland	951	12	963
	22,871	556	23,427

The number of persons engaged in the various branches of the trade in London at the present time (exclusive of workmen) is as follows:—

Watchmakers	412
Watch case makers	55
„ jewellers	31
„ makers (parts of)	277
Clockmakers	162
„ case makers	14

The value of clocks and watches imported has remained almost stationary for the last five years; in 1865, 216,677*l.* worth of clocks, and 257,076*l.* worth of watches were imported into the United Kingdom. The value of British goods exported in the same year amounted to, —clocks, 24,695*l.*, and watches, 69,179*l.*

Class XXIV.

APPARATUS AND PROCESSES FOR HEATING AND LIGHTING.

The manufacture of the best kinds of iron and steel grates, fenders and fire-irons is carried on at Sheffield, where the industry has been established for the last 60 or 70 years; previously to that date the best grates were made in London and Edinburgh. The commoner descriptions of stoves are made principally at the Carron and other works in Scotland; at the Coalbrookdale Works, and at the foundries in London, Northampton, Dudley, Rotherham, Birmingham, Mansfield, Nottingham, and Derby. The art of working, grinding, and burnishing steel is almost peculiar to Sheffield and its neighbourhood. Districts where iron is smelted offer the great advantage to the iron-founder of cheap iron and coal, and in these the bulk of the stove trade is carried on. It can scarcely be admitted that the apparatus for heating by the circulation of hot air, and the apparatus for ventilation have, as yet, been brought to a great state of perfection—the want of success is, perhaps, attributable in some degree to the methods of construction of the buildings to which such apparatus have been applied.

With regard to lamps, the increased use of gas of late years has, in a great measure, superseded the use of oil for illuminating purposes, and a large portion of the manufacture of the older description of lamps has given way to the manufacture of gas fittings. Although the consumption of fish and vegetable oils has declined, the use of the recently discovered paraffine oil has vastly increased, and given rise to the manufacture of a new class of lamps, which are now largely made in Birmingham at prices ranging from 4*d.* to 5*s.* each. The rapid development of steam communication by land and water has also led to a great demand for signal and other lamps, and has afforded employment to manufacturers who formerly were engaged in the old oil-lamp trade.

Class XXV.

PERFUMERY.

The chief centre of the perfumery trade is in London, although the manufacture of scents, pomatums, cosmetics, &c., is carried on to a less extent at most large towns throughout the

country. Few of the raw materials employed in the manufacture of perfumery are produced in the country, but are principally imported from the Southern States of Europe and from Asia. The manufacture of toilet soap in the United Kingdom is very considerable, the most celebrated, perhaps, being that known as 'Windsor soap,' which is not only largely used at home, but also exported to all parts of the world. English lavender-water has also for many years enjoyed a great renown.

There are no official statistics of the total number of persons engaged in the production of perfumery and soap. Owing, however, to the general increase of these trades, they have afforded employment to a large number of hands, and the introduction of female labour in the lighter branches of the business has created another opening for the employment of that sex of the community.

The number of manufacturers, &c. engaged in London in connection with the perfumery trade, exclusive of workmen, at the present time amounts to—

Perfumers—Wholesale . . .	151
Retail . . .	849
Hair-dye makers . . .	16

The value of British perfumery (except toilet soap) exported during the year 1865 amounted to 94,351*l.* The exports of toilet soap in the same year were 7,623 cwts., valued at 32,361*l.*

During the past ten years great advance has been made in the various branches of the perfumery trade, and the removal of the excise duty on soap in the year 1853 has had a most beneficial effect upon the manufacture of this most important article of prime necessity.

Class XXVI.

LEATHER WORK; FANCY ARTICLES; AND BASKET-WORK.

There are no means of ascertaining the amount of the production of the various articles included in this class. Perhaps the most important industry which falls within its limits is that of brush-making. Owing to the general use of brushes for domestic and trade purposes the manufacture is necessarily very large, although no records exist of its extent. According to the census of 1861 the following number of brush and broom-makers were returned for each division of the kingdom:—

In England and Wales . . .	11,178
Scotland . . .	535
Ireland . . .	617
	12,330

The importation of brushes and brooms is of small value, and the exportation of British-

made brushes and brooms in the year 1865 only amounted to 52,000*l.*, the greater part of which was sent to Australia. On the other hand, a large importation of bristles is annually made; in the year 1865, 2,563,000*lbs.* were imported, chiefly from Russia. Large quantities of brushes are also made from cocoa-nut fibre.

The basket-work trade of the United Kingdom is principally confined to the manufacture

of articles of the coarser description, such as baskets, hampers, crates, &c., although various fancy articles for domestic use are also made.

English dressing-cases hold a high repute for the excellence of their manufacture and the completeness of their arrangements; they may be bought at all prices, varying from a few shillings to a thousand guineas each. Great improvements in the manufacture of these articles have been made since 1851.

GROUP IV.

(CLASSES XXVII.-XXXIX.)

CLOTHING (INCLUDING FABRICS) AND OTHER OBJECTS WORN ON THE PERSON.

Class XXVII.

COTTON YARNS AND FABRICS.

THE manufacture of cotton still forms the largest branch of the native industry of the United Kingdom, notwithstanding the severe crisis through which the cotton trade of the country, in common with that of the whole of Europe, has lately passed.

1. The chief seats of this industry are in Lancashire in England, and in Lanarkshire in Scotland. The Counties of York, Chester, Derby and Nottingham, also contain a large number of cotton factories.

According to the latest return (1861), the total number of cotton factories in the United Kingdom was 2,887, of which number 2,715 were in England and Wales, 163 in Scotland, and 9 in Ireland. A short table will, perhaps, afford a better idea of the distribution of this industry in the three divisions of the kingdom.

Divisions and Counties	Number of Factories	Number of Spindles	Number of Power Looms
England and Wales :			
Lancashire . . .	1,979	21,530,532	306,423
Yorkshire . . .	369	2,414,898	17,393
Cheshire . . .	212	3,373,113	32,926
Derby . . .	79	682,008	7,581
Nottingham . . .	26	36,000	—
Other Counties . .	50	315,574	3,802
Total . . .	2,715	28,352,125	368,125
Scotland :			
Lanarkshire . . .	96	1,138,602	24,149
Renfrew . . .	44	408,742	2,968
Other Counties . .	23	368,054	2,993
Total . . .	163	1,915,398	30,110
Ireland . . .	9	119,944	1,757
United Kingdom . .	2,887	30,387,467	399,992

The above figures may be taken as a fair representation of the cotton industry in a time of ordinary activity. A great deal of new machinery has been added since 1861, but several mills are still out of work.

In the Lancashire and Cheshire districts, of which Manchester may be considered as the centre, every description of yarns and light and heavy piece goods, prints, velvets, &c. &c., are produced : whereas at Glasgow, which is the centre of the Scotch cotton industry, chiefly the lighter descriptions of fabric, such as cambrics, jaconets, &c., are made.

As respects mixed fabrics, which are included in this class, it is hardly possible to describe the almost countless articles in which cotton forms a constituent part. The most important, however, is that carried on at Bradford and other parts of Yorkshire—viz. that of stuffs made of cotton and wool which have all the appearance of pure worsteds, though necessarily much cheaper in price. A further notice of these goods will appear under Class 29.

2. Prior to the civil war in the United States, England derived the greater portion of the raw material employed in the cotton manufacture from that country. The average total importation of raw cotton in the five years 1856-1860, amounted to 1,129 million pounds per annum, of which 869 million pounds were obtained annually from the United States.

During the same period an average of 171 million pounds were annually exported, leaving 958 million pounds for the yearly average consumption.

On the outbreak of the American war, the Manchester Chamber of Commerce took active measures to stimulate the cultivation of cotton in various parts of the globe, and many countries, notably British India, Egypt, Brazil, and other South American States, and even China and Japan, largely increased their cultivation of cotton, and contributed to supply the English markets during the years from 1861 to 1865. In the latter year, however, the supply from some of these countries fell off, and there is little doubt of their being unable to compete with the American producer in times of peace and tranquillity.

The three countries that afforded the largest supply of cotton during the American war were British India, Egypt, and Brazil. The

importations of raw cotton during the year 1865 were:—

	lbs.
From British India	446,000,000
United States, including Bahamas and Mexico	190,000,000
„ Egypt	177,000,000
„ Brazil	55,000,000
„ China	36,000,000
„ Mediterranean (exclusive of Egypt)	27,000,000
„ Other Countries	47,000,000
Total	978,000,000

Of this quantity 303 million pounds were re-exported, leaving 675 million pounds for consumption.

The imports of raw cotton in the first eleven months of 1866 amounted to 1,260 million pounds, or 482 million pounds in excess of the corresponding importations in the previous year. Of the total amount, 474 million pounds were supplied by the United States, and 586 million pounds by British India. 361 million pounds were re-exported during the eleven months, leaving 899 million pounds for consumption.

The ranges in the price of cotton from 1860 to the present time were as follows:—

In December	American Fair Upland, per lb. d.
1860	7 $\frac{1}{4}$
1861	11
1862	23 $\frac{5}{8}$
1863	27 $\frac{1}{2}$
1864	27 $\frac{1}{2}$
1865	22

In July and August 1864 the quotations were as high as 31 $\frac{1}{2}$ d. per lb. Indian cotton also obtained high prices from 1862 to 1865. The present prices (December '66) are 16d. for fair American, and 12 $\frac{1}{2}$ d. for fair Dhollerah (Indian).

It must be borne in mind that, during the crisis, the price of cotton goods did not rise in the same proportion as the price of the raw material; the cost of manufacture having remained the same for some years past, if not slightly declined, owing to the use of better machinery, and in order to further keep down the price of manufactured goods, they were made lighter in quality, and consequently contained less of the dear raw material. The decline in the price of cotton, and the return of a steady demand for goods, has now happily enabled manufacturers to return to former qualities, and to re-establish the credit of their goods.

3. Of 451,000 persons employed in cotton factories in the United Kingdom in 1861, 315,000, or 70 per cent., were thus occupied in the Lancashire district. The following statement shows the sex and ages of the total number of operatives:—

	In England and Wales	In Scotland	In Ireland	In United Kingdom
Males:	Number	Number	Number	Number
Under 13	21,774	307	—	22,081
13 to 18	38,210	2,661	336	41,207
Above 18	113,720	5,060	488	119,268
Total	173,704	8,028	824	182,556
Females:				
Under 13	17,382	325	—	17,707
Above 13	216,512	32,584	1,910	251,306
Total	233,894	33,209	1,910	269,013
Total	407,598	41,237	2,734	451,569

The story of the cotton famine and its consequences upon the cotton operatives need not be here repeated. The result of that event was, for a considerable time, to induce all who could obtain employment to seek for it in other branches of industry, and consequently on the re-opening of the cotton mills, some difficulty was experienced in obtaining good operatives. Judging from the present amount of production and the probable continued demand, both at home and abroad, there is every hope of the cotton manufacture affording the means of livelihood to as many persons now as it did in 1861. According to good authority, the quantity of cotton now (December) being consumed is nearly equal to the consumption of 1860.

4. The average rates of wages earned in the chief divisions of the cotton industry in the Lancashire district in 1860 were:—

	Per Week of 60 Hours s. s. d.
Spinning:	
Spinners upon self-acting mules	20 to 22 0
Weaving:	
Power-loom weavers (chiefly women) on 2 looms	10 „ 10 9
3 „	15 „ 16 0
4 „	16 „ 20 0

The rates of wages at the present time are about 10 per cent. above those paid in 1860, in consequence of the scarcity of workpeople.

Considering the severe trial through which the manufacturing population in the cotton districts have lately passed, the general condition of the operatives is very satisfactory. Employment at good wages is now afforded, and as many members of the same family find occupation in the factories, their aggregate earnings suffice to keep them in easy circumstances.

Mr. H. Ashworth stated, in a paper read before the Social Science Association in Manchester, October 1866, that the 'increase in recent years of day, Sunday, and factory schools has tended greatly to increase the intelligence and to ameliorate the character and manners of the working-classes.'

'A large number of Mechanics' Institutes, Working Men's Clubs and Colleges, free libraries and similar institutions, which afford the means of mental culture, have been established,

and are much resorted to and appreciated by the operative class. Added to this, a cheap free press has placed in the hands of the English operative a means of education which is enjoyed as yet in scarcely any other country in the world.

'Frugality and prudence are apparent in the desire of many to attain the possession of such resources as would place them beyond the fear of actual want or lead to superior wealth.' 'The establishment among them of Co-operative Societies and Manufacturing and Commercial Companies, raised out of the reserved funds of the people, and conducted exclusively by the ablest and most trusty of their members, is a sign of their prudence and economical habits.' On the 31st December, 1855, there were 139 of these societies in operation in Lancashire alone.

5. The value of cotton manufactures imported into the United Kingdom, when compared with that of the exports, is of small amount, being under one million pounds sterling per annum. The articles imported consist chiefly of French muslins; Indian and other piece goods (of which a large proportion is re-exported); and hosiery, chiefly from Germany.

6. On the other hand, cotton yarn and manufactures exported from the United Kingdom form the largest class of the exports of the country, as will be seen by the following statement:—

Years	In Millions of £ sterling				
	Yarn	Piece Goods		Other kinds	Total of Yarn and Manufactures
		White or Plain	Printed, Checked, or Dyed		Value of Total British Exports
1860	10	23	17	2	52
1861	9	22	14	1	46
1862	6	16	12	2	36
1863	8	23	14	2	47
1864	9	27	17	2	55
1865	10	28	17	2	57

The next statement of the quantities and value of goods and yarn exported in 1860 and 1865 will afford a general indication of the increased value of cotton products:—

Cotton Yarn:	Quantities lbs.	Value £
1860	197,343,000	9,870,000
1865	103,533,000	10,343,000

Thread for sewing:	Quantities lbs.	Value £
1860	6,297,000	741,000
1865	4,626,000	753,000

Piece Goods of all kinds:

	Yards.	Value £
1860	2,776,000,000	40,346,000
1865	2,015,000,000	44,860,000

7. The cotton manufacture is carried on almost entirely by means of machinery. The amount of motive power in 1861 was 281,663 horse power steam, and 12,467 horse power water. A great addition of machinery has, however, taken place since 1861.

8. The high state of development to which the cotton manufacture has been brought for some years past in the United Kingdom, renders it difficult to point out the numerous improvements that have taken place in the machinery and processes employed in the manufacture of cotton. The progress made has been rather in the direction of simplifying and perfecting the existing machinery than in the introduction of new methods of manufacture.

The jury appointed to report on machinery at the London Exhibition of 1862 stated 'that the English machinery for cotton spinning could not be too highly commended, whether as regards the general construction of the machines, the judicious arrangement and adaptation to each other of the various parts, the perfection attained by the introduction of novel improvements, or the excellence of the workmanship and finish.

'By the improvements introduced, the exhibitors had endeavoured to render their machines as positive in their various changes and movements, as automatic, and as perfect as possible. These endeavours had been in a high degree successful, and had resulted in the accomplishment of machines of greater capability, both as regards the production and quality of work, than had hitherto been attained.'

As respects machinery for weaving, it was also stated 'that, as regards arrangement and workmanship, the praise given to machinery for spinning was equally due to machinery for weaving.'

Great progress was also exhibited in the winding, sizing and warping machines, as compared with those shown in 1851.

The most important change since 1862 has been that of adapting a great part of the existing machinery to work short staple, East Indian, and other cotton, which was not used to any great extent before the American war. Acceleration of speed of machines is always going on whenever practicable, but the inferior descriptions of cotton cannot be worked at a high speed, and need a greater amount of machinery than the better qualities require.

9. In addition to the progress that has taken place in the mechanical branches of the cotton industry, the means adopted by the Government for improving the education and taste of artisans must not be overlooked. Schools of Science and Art are now established, in connection with the Department of Science and Art, in the centres of the manufacturing districts, as well as in other parts of the country, and many thousand students are annually instructed in the elements of science and in sound principles of art. In addition to these schools, 'traveling collections' of objects of art have been organised, which are sent round the provinces; and thus many a working man, who could not afford a journey to inspect the art collections of the Metropolis, has good models brought to his very door.

The instruction thus imparted has produced the most beneficial effects upon the manufactures of the country. A great step in this respect was manifest to all who beheld the two Exhibitions of 1851 and 1862; and it is believed that the objects exhibited in this Class in the British section at the present Exhibition will show considerable advancement in the appreciation of fine art, both as regards colour and design, when compared with those exhibited at the last Paris Exhibition in 1855.

[For *Hosiery* and *Underclothing* see CLASS 34.]

Class XXVIII.

YARNS AND FABRICS OF FLAX, HEMP, &c.

1. In this class are comprised yarns and manufactures made of vegetable fibres other than cotton.

The linen industry, or manufacture of flax and hemp, is widely spread throughout the kingdom, although it is carried on to the greatest extent in Ireland, in the counties of Antrim and Down. The largest branches of the trade in England are situated in the counties of York and Lancaster, and in Scotland in the counties of Forfar and Fife.

The manufacture of jute (which may be said to be scarcely known in any foreign country except France and Holland) has now assumed an important position in Scotland that it deserves to be separately noticed. The seat of its manufacture is at Dundee. Jute is a fibrous material very much resembling hemp, and is used principally for making heavy linens, sack-ing, packing cloth, and carpeting.

The number of flax, hemp, and jute factories in the three divisions of the United Kingdom in 1861 was:—

Divisions and Counties	Factories	Spindles	Power- looms
FLAX FACTORIES			
England and Wales:			
Lancashire	13	117,412	489
Yorkshire	70	172,272	1,403
Other Counties	53	54,624	268
Total	136	344,308	2,160
Scotland:			
Forfar	85	160,090	5,108
Fife	46	54,383	1,823
Other Counties	32	64,912	1,035
Total	163	279,385	7,966
Ireland:			
Antrim	47	360,592	2,854
Down	15	103,630	128
Other Counties	38	128,759	1,684
Total	100	592,981	4,666
Total, United Kingdom	399	1,216,674	14,792

Divisions and Counties	Factories	Spindles	Power- looms
HEMP FACTORIES			
England and Wales	3	264	1
Scotland	2	2,316	—
Ireland	—	—	—
Total	5	2,580	1
JUTE FACTORIES			
England and Wales	4	620	—
Scotland	27	30,538	554
Ireland	5	1,824	—
Total	36	32,982	554

Since the year 1861, however, the linen and jute trades have made great progress, as will be seen by the annexed statistics.

The following is a statement of the position of the Irish linen industry on the 1st January, 1866, as published by Mr. McIlwrath, Secretary to the Belfast Linen Committee:—

Flax Spinning Mills.

Number of mills, 86; spindles employed, 759,452; ditto unemployed, 11,362: total, 770,814, and a proposed addition of 103,792 spindles.

Power-Loom Factories.

Number of factories, 44; looms employed, 10,538; ditto unemployed, 266: total, 10,804, and a proposed addition of 6,484 looms.

There were also 17,786 spindles, and a proposed addition of 4,656 spindles, employed in twisting thread. New mills and factories were also in course of erection capable of containing a further proposed addition of 62,000 spindles, and 1,400 looms.

Plain linens, damasks, cambrics, handkerchiefs, and other light linens are produced in the localities of Belfast, Forfar, Brechin, Dunfermline, Barnsley, and Manchester, while the heavy descriptions of goods, including sail-canvas, sacking, &c., are made in the Dundee, Hull, Greenock, and Arbroath districts. Linen yarns are also largely manufactured at Leeds.

Mr. R. Sturrock, the Secretary to the Dundee Chamber of Commerce, states that the manufacture of jute was first known in Dundee about the year 1830, and that in 1865 nearly seventy-two thousand tons of raw jute were imported into that town.

He estimates the present number of jute factories for spinning and weaving at about 60, containing 100,000 spindles and 5,000 power-looms.

2. A large proportion of the raw material used in the linen industry of the United Kingdom is produced in the country. The following table shows the respective amounts of the estimated home production in 1866 and the

foreign supply during the five years inclusive 1861-65:—

HOME PRODUCTION

Acres	
Acres under Flax in Ireland in 1866	263,659
	Cwts.
Estimated produce in 1866	1,054,000

FOREIGN PRODUCE IMPORTED FOR CONSUMPTION			
Years	Flax	Hemp	Jute
	Cwts.	Cwts.	Cwts.
1861	1,286,000	738,000	817,000
1862	1,788,000	908,000	849,000
1863	1,416,000	956,000	1,057,000
1864	1,774,000	943,000	1,754,000
1865	1,867,000	913,000	1,691,000

A large proportion of hemp is used in the manufacture of ropes, cords, &c.

In 1861 the area under flax in Ireland was only 148,000 acres, and the estimated produce 451,000 cwts.

There are no returns of the growth of flax in Scotland; it is not, however, cultivated to any great extent, and its cultivation is believed to have declined during the past ten years. The exports of British flax are insignificant in amount, being 35,000 cwts. in 1865. The total of the raw material employed in the linen and jute industries in 1865 may be therefore roughly estimated at between four to five million cwts.

In 1865 Russia supplied 76 per cent. of the flax and 60 per cent. of the raw hemp imported.

Austria and the Philippine Islands also contributed large supplies of hemp. Jute is imported entirely from British India.

3. The number of persons of each sex and of different ages engaged in flax, hemp, and jute factories in each division of the kingdom was, according to the last return (1861), as shown below:—

	England and Wales	Scotland	Ireland	United Kingdom
Males:				
Under 13	886	328	236	1,450
13 to 18	1,422	3,461	3,771	8,654
Above 18	3,682	6,842	6,142	16,666
Total	5,990	10,631	10,149	26,770
Females:				
Under 13	1,108	627	459	2,194
Above 13	13,376	28,304	23,359	65,039
Total	14,484	28,931	23,818	67,233
Total males and females	20,474	39,562	33,967	94,003

The number of operatives at present engaged in the linen and jute trades is, however, greatly in excess of the above.

The increased consumption of the raw material during the past five or six years has been previously shown, and as a natural consequence a large additional number of hands has been required for its manufacture.

The number of operatives employed in the jute industry at Dundee is now about 28,000,

of which number nearly one-third are males, and two-thirds females.

4. The average rates of wages paid in the linen trade at Belfast and Dundee in 1866 were—

		Per Day of 10 Hours	Per Week of 60 Hours
		s. d.	s. d.
At Belfast (Linen)	To spinners (women)	1 4½	
	„ weavers (women and girls)	1 8	
At Dundee (Linen)	To spinners (women)	8 6 to 14 6	
	„ weavers (women)	8 0 „ 15 0	

The condition of the linen operatives has much improved of late years, owing to the increased and constant demand for their labour.

The rates of wages paid in the Jute trade in 1866 were—

	Per Week of 60 Hours
	s. d. s. d.
Spinners (women)	10 0
Weavers (women)	12 6 to 13 4

The jute factories are well built, well aired, and the comforts of the operatives well considered. The workpeople as a class enjoy good health, and are sober, industrious, and provident.

5. Compared with the exportations, the importations of linen yarns and tissues are small in amount. In 1865, 1,216,480 lbs. of linen yarn, and 153,104l. worth of tissues, were imported into the United Kingdom. 1,958,000 lbs. of jute yarn, chiefly from France, were also imported in the same year; the total value of the foregoing articles being 278,000l.

6. The exportations of these articles, on the other hand, were very considerable. The next table shows the value of British linen and jute yarns and tissues, &c. exported during the six years 1860-65:—

Years	Jute *			
	Yarns		Tissues, &c.	
	£	£	£	£
1860	1,801,000	4,804,000	not stated	not stated
1861	1,622,000	3,852,000	85,126	127,031
1862	1,852,000	5,139,000	96,152	133,149
1863	2,530,000	6,508,000	154,618	243,379
1864	2,991,000	8,172,000	114,503	356,764
1865	2,535,000	9,156,000	82,141	311,540

* These figures do not represent the whole of the jute exports, a large proportion being classed with linen goods.

The value of white, plain, and damask tissues amounted to seven-and-a-half millions sterling, out of the total value of nine millions in 1865. The value of linen thread for sewing exported in the same year was 558,000l.

During the ten years from 1851 to 1860, the export trade of linen goods from the United Kingdom remained in a stationary position, amounting to little over four millions sterling per annum.

The relative proportions of the quantities and

values of the chief kinds of linen goods exported in 1860 and 1865 were:—

	Quantities	
	1860	1865
Linen Yarn . . lbs.	31,210,000	36,796,000
Tissues:		
"White, plain, and damask . . yds.	136,936,000	222,790,000
Printed, dyed, or checked . yds.	3,203,000	16,965,000
Sailcloth . . "	3,857,000	7,250,000
Thread for sewing . lbs.	3,229,000	3,935,000
	Value £	
	1860	1865
Linen Yarn	1,801,000	2,535,000
Tissues:		
"White, plain, and damask . .	4,161,000	7,537,000
Printed, dyed, or checked	98,000	606,000
Sailcloth . . .	175,000	383,000
Thread for sewing . .	340,000	558,000

7. The linen trade is carried on almost entirely by means of machinery; handlooms are, it is true, still in use in Ireland, but the employment of such looms is rapidly decreasing. Dr. Watts states in *The Facts of the Cotton Famine* that 'the economy of labour in the production of linen yarns appears to have made great progress during the last decade. Ten years ago, nine or ten leas per spindle per week of No. 30's yarn was considered good work; but in 1865, eighteen leas per week of the same No. were produced.'

The jute trade may also be said to be entirely performed by machinery.

8. The jury appointed to examine the linen goods sent to the London Exhibition in 1862, reported that 'both England and Ireland appear to have made considerable improvements in the cultivation and after management of flax.' Ireland, it is stated, deserved especial notice for the great taste displayed in the collection of printed cambrics and linens. The printed linens are chiefly consumed abroad. Praise was also accorded to the fine quality of the Irish bleached linens, which is ascribed to the suitability of the climate for bleaching purposes, and to the happy combination of the open-air process with the use of chemical means. Great progress was also noticed in the make of tow yarns, and in the extension of the use of power-looms.

The stationary position of the linen export trade during the ten years previous to 1861 has already been noticed. M. Alcan, the reporter to class 19 at the Exhibition of 1862, gave some very interesting remarks upon this subject, in which he attributed the want of progress to the difficulties experienced in working the raw material as compared with the facility of spinning raw cotton. He stated that flax yarns made by machinery cost more in equal length for the same weight of fibre than cotton yarns. The machinery necessary for spinning flax is much stronger and requires more steam power

than that used for spinning cotton. This is owing to the present defective mode of steeping the flax, which leaves an excessive quantity of gum in the fibre, and thus renders it more difficult to spin.

One result of the stoppage of the cotton trade during the American war was to increase the demand for linen manufactures, and thus an extraordinary impetus was given to the linen industry of the country. The high prices which linens commanded during the cotton panic induced landowners to cultivate more largely the flax crop, as well as stimulated foreign producers of flax to send their produce to the English markets; the consequence of which was a great revival of the linen trade. There is every reason to hope that, if the exertions which have been made during the past few years be maintained, the linen industry will date a new era from the temporary suspension of the cotton trade, and materially add to the wealth of the country.

As regards the jute industry, improvement in machinery is constantly being made, and, owing to recent discoveries, the application of jute to various purposes of manufacture is widely extending. The number of students attending the Dundee School of Art in the year 1865 was 1,922, and it is stated that the mechanics and operatives connected with the jute trade have derived great benefit from the instruction which they there received.

[For *Hosiery* and *Underclothing* see CLASS 34.]

Class XXIX.

COMBED WOOL AND WORSTED FABRICS.

1. The term 'Worsted,' given to fabrics made of combed wool, is said to have derived its origin from a village of Norfolk of that name, and where its manufacture was first carried on. The worsted industry is of very ancient date, but it is comparatively only of late years that it has attained its present importance. From the year 1825 it made great progress, but up to that time worsteds of pure wool only were manufactured. A few years later on the introduction of cotton warps was made, and a great impetus was thus given to the manufacture. Worsteds are now made both of pure wool, and of mixtures of wool, and cotton, silk, alpaca, mohair, &c.; and the annual value of the worsted trade is now quite equal to, if not greater, than that of the woollen industry.

Worsteds of pure wool include merinos, single and double twilled, shallons, serges, lastings, &c., and damask for hangings. Of the mixed fabrics, those composed of wool and cotton, such as 'coburgs' and 'orleans,' have had an immense consumption; the other mixtures are also manufactured on a very large scale and of every degree of quality. Bradford is renowned

for the production of single twilled merinos and mixed fabrics, and Halifax for heavy worsteds and damasks, &c.

Bradford, in the county of York, is the chief seat of the worsted industry. The number of worsted factories in each division of the United Kingdom in 1861 was:—

Divisions	Number of Factories	Number of Spindles	Number of Power-looms
England and Wales:			
Yorkshire	443	1,149,072	40,577
Other Counties	69	96,454	2,391
Total	512	1,245,526	42,968
Scotland	17	38,946	89
Ireland	3	4,700	—
Total, United Kingdom	532	1,289,172	43,048

Although there are no more recent official statistics of the number of spindles and looms employed in the worsted trade, it is generally known that their number has very much increased since 1861.

2. The sources of the supply of the raw wool, cotton, and silk used in the worsted industry will be found in the remarks to Classes 27, 30, and 31. As regards the supply of mohair, the following table shows the importations during the five years 1861-65:—

	Goats' Hair or Wool lbs.
1861	3,335,000
1862	4,048,000
1863	3,434,000
1864	4,737,000
1865	5,402,000

Mr. Behrens estimated the total quantity of raw materials (wool, mohair, cotton, &c.) used in the worsted trade in the year 1864 at about 150 million pounds, representing a value of about £33,600,000 in a manufactured state.

3. Of the total number of operatives employed in worsted factories in the United Kingdom in 1861, 76,000, or 88 per cent., were engaged in factories in Yorkshire. The ages and sex of the total number of operatives are given in the following table:—

	In England and Wales	In Scotland	In Ireland	In United Kingdom
Males:				
Under 13	6,268	—	—	6,268
13 to 18	6,424	178	12	6,614
Above 18	17,700	895	24	18,619
Total	30,392	1,073	36	31,501
Females:				
Under 13	6,906	4	—	6,910
Above 13	45,674	1,839	139	47,652
Total	52,580	1,843	139	54,562
Total	82,972	2,916	175	86,063

The above is the last official return of the

number of persons employed, but it is believed to be considerably below that of the actual number now engaged in the worsted trade of the country.

4. The average rates of wages paid in the leading branches of the worsted trade in 1866 were:—

Spinners: AT BRADFORD.

Women 7s. 0d. to 10s. 0d. per week of 55 hours

Weavers:

Men	18s. 0d.	69	”
Women	12s. 0d.	55	”

Spinners: AT HALIFAX.

Men	30s. 0d.	69	”
Women 7s. 6d. to 8s. 6d.	”	”	”

Weavers:

Men 16s. 0d. to 24s. 0d.	”	”	”
Women 8s. 0d. to 12s. 0d.	”	”	”

5. The importations of worsted yarns are noticed in the remarks to Class 30. The importations of worsted stuffs are not very large in amount. In the year 1865, 151,000 pieces were imported, valued at 334,000*l.* These goods came chiefly from France.

6. A vast increase in the exportation of worsted fabrics has taken place since the year 1860, as will be seen from the following statement:—

Articles		1860	1865
Worsted Yarn	lbs. £	26,455,000	30,221,000
		3,578,000	5,074,000
Worsted Stuffs	yds. £	148,685,000	233,078,000
		7,013,000	13,361,000

A very large trade in worsted stuffs has been carried on with France since the conclusion of the Commercial Treaty with that country, the value of such exports having reached the sum of 1,332,000*l.* sterling in the year 1865.

7. The worsted trade is entirely carried on by means of machinery. The motive power used in worsted factories in 1861 was returned as 26,234 steam horse power, and 1,970 water horse power.

8. The success of the worsted trade of England is owing to the perseverance and ingenuity displayed in originating an infinite variety of goods made of combinations of animal with vegetable fibres, which, from the range of their qualities and prices, have caused them to enter largely into the supply of the wants of the population for clothing and furniture purposes.

The chemical processes required in order that a fabric composed of both animal and vegetable substances may be made to receive an equal and regular dye, are necessarily varied and intricate; but so successful have been the efforts of the dyer, that goods made of white cotton warp and worsted weft can be dyed quite as perfect in colour as French merino of wool alone.

As regards the recent progress of the trade, the jury on mixed fabrics in 1862 reported a

'great improvement in the dye of the cotton warp goods, in the finish of the various fabrics from bright wools and mohair, and more especially in the taste and knowledge of colouring displayed in the fancy goods, which now form so large a portion of the trade.'

A School of Art was established at Bradford in the year 1865, and it will no doubt be the means of still further improving the taste of all classes connected with the important worsted industry of that district.

[For *Hosiery* and *Underclothing* see CLASS 34.]

Class XXX.

CARDED WOOL AND WOOLLEN FABRICS.

1. Although the woollen industry existed in England at a very early date, there can be little doubt that it owes its permanent establishment in a great measure to the act of King Edward III. in inviting the Flemish manufacturers to settle in this country in the year 1331. Previous to that event English wool was exported to Flanders and returned in a manufactured shape; since that period, however, the woollen manufacture has been constantly increasing and regarded as one of the most important industries of the State.

The woollen manufactures of the West Riding of Yorkshire, and those of the west of England, which were established in the reign of Edward III., have remained to the present time the chief seats of this extensive industry. Leeds is the most important centre of the West Riding district, and may be considered as the metropolis of the woollen trade. Huddersfield, with its neighbourhood, is the second in importance, and is famed, in addition to the production of broadcloths, for its large trade in fancy trousseings, &c. In the west of England, Trowbridge, in Wiltshire, is the centre of a large district which produces fancy goods and light cloths of many descriptions; and Stroud, in Gloucestershire, is celebrated for its scarlet and other bright-coloured cloths, a celebrity which it derives from the peculiar fitness of its waters for the dyeing processes. The Scotch goods, tweeds, tartans, &c., are generally of a beautiful soft character and permanent dye. Blankets, which are also included in this class, are made chiefly at Witney in Oxfordshire and at Dewsbury in Yorkshire. Flannels are produced in Wales, chiefly by hand labour, and Rochdale and district is now the centre of the English branch of this trade. Felt druggeting is made in the Yorkshire district, and is largely used in England as a cheap substitute for carpets.

A very important branch of the woollen trade, and one which deserves more than a passing notice, is that of the shoddy trade. The following interesting remarks on this trade were made by the jury on woollens at the Exhibition of 1862:—'Shoddy is of three

kinds. 1. Shoddy, as manufactured from soft woollen rags, as of flannels, blankets, stockings, carpets, &c. 2. Mungo, manufactured from hard and soft woollen rags and new cloth cuttings, &c. 3. Extract of wool, that is, wool extracted from mixed cotton and woollen rags by a chemical process, which consumes the cotton leaving the wool intact. The combination of shoddy with wool, together with the use of cotton warps, is the most valuable adaptation of materials in the history of the woollen trade which the ingenuity of man has discovered. By it multitudes of the humbler classes are enabled to obtain useful and comfortable articles of clothing, which formerly were beyond their means. Dewsbury, Batley, and the surrounding towns in the West Riding of Yorkshire are the centres of its manufacture.

The statistics of the woollen industry of the United Kingdom in the year 1861 are given below:—

Division and Counties	Number of Woollen Factories	Number of Spindles	Number of Power- looms
England and Wales :			
Yorkshire	924	1,296,190	11,405
Devonshire	16	12,585	255
Gloucestershire	49	59,986	618
Lancashire	101	277,655	6,377
Montgomery	43	20,920	262
Somersetshire	26	31,401	401
Wiltshire	32	44,825	549
Other Counties	265	109,288	477
Total	1,456	1,846,850	20,344
Scotland :			
Aberdeen	25	17,510	93
Clackmannan	15	38,311	214
Peebles	7	51,142	101
Perth	16	16,353	—
Roxburgh	21	60,747	300
Selkirk	16	46,368	158
Stirling	23	32,950	64
Other Counties	61	59,804	373
Total	184	317,185	1,303
Ireland	39	18,574	123
Total, United Kingdom	1,679	2,182,609	21,770

The number of spindles and looms returned in 1861 is, however, considerably less than the number now in use, a great impulse having been given to the woollen industry by the rise in the price of cotton goods during the cotton famine.

2. The raw material of the woollen industry is produced to a considerable extent in the country, but as no records of the actual amount of the home supply exists, only an estimate can be given. Basing the estimate on the number of sheep in the country, the home production probably amounts to 152,000,000 lbs. annually.

The annual average exportation of British wool during the past five years was 10,100,000 lbs.

Of the foreign supply above 70 per cent. is furnished on an average by the British colonies,—Australia and the possessions in

South Africa taking the lead. Germany supplies some of the finer qualities of wool, and a large quantity is also imported from South America. The rapid progress in the woollen trade of late years is shown by the following table of the importations of raw wool of all descriptions (sheep and lambs', alpaca, llama, and vicuna) in 1855, 1860, and 1865:—

Countries from which imported	In 1855	In 1860	In 1865
	lbs.	lbs.	lbs.
British Colonies:			
Australia . . .	49,142,000	59,166,000	109,734,000
India . . .	14,283,000	20,214,000	17,105,000
Cape of Good Hope, &c. }	11,075,000	16,574,000	29,220,000
Foreign Countries:			
Spain . . .	68,000	1,000,000	115,000
Germany . . .	6,128,000	9,292,000	6,858,000
Other European States }	8,119,000	28,570,000	27,693,000
South America . . .	7,106,000	8,950,000	17,867,000
Other Countries . . .	3,379,000	4,630,000	3,614,000
Total Imports . . .	99,300,000	148,396,000	212,206,000
„ Exported . . .	29,453,000	30,761,000	82,445,000
Left for consumption . . .	69,847,000	117,635,000	129,761,000

It must be borne in mind that the above statistics relate to the raw wool &c. employed in the worsted as well as the woollen industry. Of the total of 212 million lbs. imported in 1865, nearly three million lbs. were of alpaca, llama, and vicuna wool.

In addition to the above, the following quantities of woollen rags &c. used in the shoddy trade were imported:—

	Woollen Rags Tons	Woollen Rags torn up to be used as Wool Tons
1861 . . .	3,290	7,602
1862 . . .	4,311	8,972
1863 . . .	5,766	9,866
1864 . . .	5,909	10,037
1865 . . .	5,462	9,316

Mr. Behrens estimates the annual production of shoddy wool in the country at 52 million lbs., and of wool extract at 5 million lbs.

The total estimated supply of raw materials employed in the woollen and worsted industries of the country in the year 1865 may be taken as follows:—

	Million lbs.
English wool (less exports) . . .	142
Foreign „ „ . . .	130
Shoddy „ home made . . .	52
„ „ imported . . .	22
Wool extract . . .	5
Woollen and worsted yarn . . .	4½
Goats' hair or wool . . .	5
	360½

Mr. Behrens estimated the total quantity of raw materials employed in the woollen and worsted industries in 1864 at 384,000,000 lbs., which amount he divided between the two industries as follows:—In the woollen industry, 234,000,000lbs., representing a value of

£30,800,000 sterling in a manufactured state; and in the worsted industry, 150,000,000 lbs., representing a value of £33,600,000 sterling when manufactured. The imports of foreign wool in 1865 were considerably below those imported in 1864.

3. The number of operatives of each sex and age employed in woollen factories in 1861 was:—

	England and Wales	Scotland	Ireland	United Kingdom
Males:				
Under 13 . . .	3,333	29	—	3,362
13 to 18 . . .	9,811	1,327	75	11,213
Above 18 . . .	30,954	3,855	370	35,179
Total . . .	44,098	5,211	445	49,754
Females:				
Under 13 . . .	2,598	9	—	2,607
Above 13 . . .	29,613	4,592	417	34,622
Total . . .	32,211	4,601	417	37,229
Total Males } and Females }	76,309	9,812	862	86,983

The above figures are considerably short of the actual number of operatives now employed, owing to the rapid extension of the woollen industry since the year 1861.

4. The average rates of wages earned in two of the principal divisions of the woollen trade in the year 1866 were as follows:—

	Males	Per Week of 60 Hours
At Huddersfield . . .	Spinners . . .	18s. to 30s.
	Weavers . . .	18s. to 23s. 6d.
	Pattern Weavers . . .	16s. to 30s.
	„ Designers . . .	30s. to 50s.
At Dewsbury . . .	Spinners . . .	34s.
	Weavers . . .	20s.
	Pattern Weavers . . .	22s.
	„ Designers . . .	36s.

5. The English trade accounts do not distinguish the imports of woollen from those of worsted yarns. The recent increase in the quantity of imported yarn, given in the official returns as 'woollen and worsted,' is probably more owing to the demand in the worsted than in the woollen branch of trade. The following amounts of both kinds of yarns were imported between 1861 and 1865:—

	lbs.
1861 . . .	1,577,000
1862 . . .	2,244,000
1863 . . .	4,526,000
1864 . . .	4,654,000
1865 . . .	4,392,000

The above figures also include Berlin wool and yarn for fancy purposes, which amounted to 211,000 lbs. in 1865.

The value of woollen cloths imported during the same period was:—

	£
1861 . . .	119,654
1862 . . .	124,245
1863 . . .	147,757
1864 . . .	177,922
1865 . . .	190,221

6. The returns of the exports of the principal descriptions of goods included in this class indicate a prosperous state of this branch of trade, as the comparative table below will show :—

	Quantities		Value	
	In 1860	In 1865	In 1860	In 1865
	lbs.	lbs.	£ not stated	£
Woollen yarns	not stated	203,929	{	35,694
Woolens : Cloths, coatings, &c.	yards	yards		
	23,968,000	25,616,000	2,996,000	4,024,000
Flannels, blankets, and baizes	12,641,000	14,769,000	848,000	1,203,000

7. The greater part of the woollen industry is performed by machinery, but although considerable progress has been made in perfecting the machinery employed, the woollen industry is in this respect far behind the cotton industry. Hand-loom weaving is still carried on in a few country districts in Yorkshire, but the use of hand-looms is gradually diminishing. The amount of motive power in use in woollen factories in 1861 was 26,879 steam horse power, and 9,598 water horse power.

8. The progress in the woollen industry during the past ten years has been very great in all its branches. The increased supply of the raw material, the introduction of new combinations of wool with other materials, of improved machinery, and of new methods of dyeing, may be quoted as evidences of progress. The extended use of the power-loom in weaving, especially as regards its adaptation to weave patterns in any variety of colours, has materially tended to the advancement of the woollen trade. Great improvements have also been made in almost every description of machinery employed in the manufacture. The important element of increased speed in the working of the machines has, moreover, been well kept in view.

The production of shoddy cloths at a cheap price as compared with real cloths, and possessing the same qualities as pure woollens, with the exception of finish and durability of colour, has proved an immense boon to many classes of the community, not only in providing the poorer classes with good articles of clothing, but at the same time utilising a material that was formerly regarded as waste, and affording in its manufacture employment to some thousands of operatives.

The great demand for fancy woollens of late years has afforded full employment both to pattern designers and to dyers. Leeds, Huddersfield, Stroud, and Trowbridge, each possess Schools of Art, and over eight thousand students received instruction at these schools during the year 1865. The discovery of aniline has led to vast improvements both in the

patterns and colours of the better classes of woollens.

The rapid increase of co-operative societies for supplying the operatives with provisions and clothing at wholesale prices for ready money will, it is hoped, tend to an extension of economical habits among the labouring population in the woollen districts.

Class XXXI.

SILK AND SILK MANUFACTURES.

1. The silk industry of the United Kingdom, though of less magnitude than that of the other textile manufactures of the country, is nevertheless of considerable importance. Its growth was for many years retarded by a system of prohibitions and restrictions on the importations of foreign silk goods, and the competition necessary in all cases to a large production being thus denied it, it remained for a long period in a most unsatisfactory condition. The security from foreign rivalry, and the monopoly of the limited home market, which the trade so long enjoyed, were purchased, however, at a great cost. Whilst in England the majority of the manufacturers contented themselves with supplying the close home markets, without effecting any material improvements in their manufactures, in foreign countries great advances were made in the various processes of manufacture, and consequently, upon the inauguration of the free-trade system, the British silk manufacturers found themselves in a most disadvantageous position. Since the year 1851 the English silk trade has nevertheless made great progress, notwithstanding the many difficulties that beset its path.

Between the years 1850 and 1861 the number of silk factories in the United Kingdom increased from 277 in the former year to 771 in the latter; the number of spindles from 1,225,000 to 1,338,000, and the number of power-looms from 6,092 to 10,709. The distribution of silk factories in 1861 in the three divisions of the kingdom was :—

	Number of Factories	Number of Spindles	Number of Power- looms
England and Wales :			
Cheshire . . .	175	409,470	1,509
Derbyshire . . .	42	98,210	449
Essex . . .	9	155,681	591
Lancashire . . .	48	128,109	4,201
Warwickshire . . .	331	6,732	2,065
Yorkshire . . .	27	122,952	8
Other Counties . . .	129	384,756	1,812
Total . . .	761	1,305,910	10,635
Scotland . . .	8	31,452	60
Ireland . . .	2	1,182	14
Total, United Kingdom	771	1,338,544	10,709

Silk stuffs are produced principally at Manchester, ribbons at Coventry, and fancy silk goods at Macclesfield.

2. The raw material employed in the silk industry is supplied chiefly by Italy, China, India, and Japan, the bulk being contributed by the three last-named countries.

The quantities of the raw material retained for consumption during the six years 1860-65 were:—

	Raw Silk lbs.	Knubs, Husks, and Waste lbs.
1860 . . .	6,024,000	1,784,000
1861 . . .	4,613,000	3,225,000
1862 . . .	5,166,000	2,678,000
1863 . . .	5,368,000	3,455,000
1864 . . .	1,733,000	2,691,000
1865 . . .	4,595,000	3,608,000
Average . .	4,583,000	2,907,000

A small quantity of thrown silk is also imported, but the importations have considerably fallen off since 1860. The imports in 1865 were 60,130 lbs. The above figures refer to the total supply of raw silk, part of which is consumed in the manufacture of mixed fabrics, hosiery, lace, &c.

3. The number of persons of each sex and age engaged in the silk manufacture in England and Wales in the year 1861 was:—

Males:	No.
Under 13 . . .	2,120
13 to 18 . . .	3,185
Above 18 . . .	9,996
Total . . .	15,301
Females:	
Under 13 . . .	4,673
Above 13 . . .	31,217
Total . . .	35,890
Total males and females . .	51,191

There are no returns of the number of operatives employed at the present time.

4. The wages in the Manchester silk trade increased 10 per cent. between the years 1849 and 1859; in the latter year the average rates paid to the principal operatives were:—

	Per Week of 60 Hours
	s. d.
Millmen and throwsters . . .	17 0
Spinners (young men and boys) . .	10 6
Doublers (women) . . .	8 9
Warpers (men) . . .	24 0
Weavers „ . . .	20 0

It was stated in a report by a local committee at the British Association at Birmingham in 1865, that the number of persons engaged in the Coventry ribbon trade was estimated at 2,000 males and 4,000 females in 1864; although the estimate especially as regards females was considered to be below the mark. The average wages paid in the ribbon

trade for an expert hand varied from 25s. to 28s. per week. The wages earned by females ranged from 7s. to 10s. per week.

5. The value of silk manufactures imported into the United Kingdom has increased rapidly since the year 1860. The increase is due to the extension of trade between this country and France, in consequence of the Commercial Treaty with that country. The chief imports from France consist of plain silk and satin, broad stuffs and ribbons.

The total value of silk manufactures imported during the six years, 1860-65, was—

	£
1860	3,314,000
1861	5,906,000
1862	6,618,000
1863	6,639,000
1864	7,620,000
1865	8,496,000

6. The value of British silk manufactures exported during the same years was—

	£
1860	1,587,000
1861	1,395,000
1862	1,264,000
1863	1,421,000
1864	1,460,000
1865	1,404,000

7. A portion of the silk ribbon trade is still carried on in the operatives' dwellings, but the general tendency is towards a concentration of the workpeople in factories.

Owing to many causes, the silk industry is perhaps the most fluctuating in nature of all the textile industries. The English silk trade, in common with that of other countries, has suffered materially the past few years from a disease in the silkworm, and from a change in fashion which has greatly affected the ribbon branch of the trade. Taking these facts into consideration, the statistics of the export trade in British silks may be quoted as evincing a more satisfactory position of the silk industry than might under the circumstances have been expected.

Great improvements have been made in the finish and colour of English ribbons, and it is believed that the specimens of these and other goods shown at the present Exhibition will manifest that a considerable progress has been made in the British silk trade generally since the last Paris Exhibition in 1855.

[For *Hosiery* and *Underclothing* see CLASS 34.]

Class XXXII.

SHAWLS.

The manufacture of shawls has made great advance during the past fifteen years in the United Kingdom. Woollen shawls are made chiefly in Scotland and in Yorkshire. Paisley

in Scotland has for many years been noted for the excellent quality of goods of this description, and Bradford now manufactures worsted shawls in great variety. Silk shawls are made principally at Norwich.

The chief descriptions of shawls imported are Cashmere from India, silk crape from China, &c., and woollen shawls principally from France.

The following are the statistics of the British export trade in this class of goods in the year 1865:—

	No.	£
Woollen and worsted shawls	431,350	—145,570
	Dozens	
Handkerchiefs, scarfs, and shawls of silk only	129,560	—235,825
Ditto of silk mixed with other materials	15,513	—16,461

Great improvements in the designs used for shawls have been made since 1851, especially in the Scotch goods. Paisley possesses a School of Art, established in 1848, in which 1,063 students received instruction in the year 1865.

Class XXXIII.

LACE, NET, EMBROIDERY, AND SMALL WARE MANUFACTURES.

1. The chief seat of machine lace manufacture is at Nottingham and the neighbourhood. It is also made in Derbyshire, at Tiverton, Barnstaple and Chard. The other descriptions of lace are made in the counties of Buckingham, Bedford, Oxford, and Northampton, and at Honiton and Limerick. The muslin embroidery trade is carried on in Ireland and Scotland.

The following statistics of the machine lace trade of the Nottingham and other districts in the year 1866 are taken from a return made to the Board of Trade by the Chamber of Commerce of Nottingham:—

	No.
Circular machines making bobbin net	1,797
Lever's machines, making fancy lace goods	1,589
Sundry machines	166

Of the 1,797 circular machines above stated, 700 were employed at Nottingham and neighbourhood, 500 in Derbyshire, 200 at Tiverton, 100 at Barnstaple, and 300 at Chard. The whole of the 'Lever's' and 'sundry' machines were at work in the Nottingham district.

2. The sources of the supply of the raw material used in these industries will be found stated in the remarks to Classes 27–31.

3. The number of persons employed in this industry at Nottingham and district (exclusive of girls engaged from an early age in the houses of 'mistresses,' often their own mothers, at

work of a variety of kinds from warehouses, &c.), is about 38,000 persons.

According to the report of the jury on Class 24 at the London Exhibition of 1862, the pillow-lace industry affords employment to about 25,000 women and children, who are engaged in the work at their own homes; and the muslin embroidery trade, when in full work, to not less than 200,000 persons in Ireland, and to 25,000 persons in Scotland, who also work at their own homes.

4. The average rates of wages paid to the leading classes of operatives in the Nottingham district in 1866 were—

Employed at bobbin-net machines making all kinds of plain and fancy lace:—

Males:	Wages per Week	Hours of Labour per Day
Boys	5s.	10½
Young men	16s.	{ Each machine, as a rule, employs two men (who work in shifts) from 9 to 10 hours each per day.
Men	25s.	
„ first-class hands	35s. to 50s.	
Superintendents of machinery	35s.	10½

Females:		
From 7 years of age, menders and threaders	4s. to 8s.	Variable hours.
White menders and folders	9s. to 12s.	{ In factories, 10½
Dressers	10s.	
Overlookers and superior warehouse women	13s. to 15s.	{ In warehouses, from 8 a.m. to 7 p.m.

The girls from seven years of age, employed as menders, are chiefly engaged at their own homes.

Occasional overtime in the trade generally is paid extra.

5. The following table shows the value of lace and embroidery imported into the United Kingdom in the year 1865:—

Lace:	£
Mohair or worsted	256
Pillow-lace of thread or cotton	78,861
„ „ silk	18,855
Machine or imitation lace not made by hand	69,734

Embroidery and Needlework:	
Curtains embroidered on muslin or net	16,115
Of other sorts	41,970

Pillow-lace is imported chiefly from Belgium, and machine-lace from France.

6. The exportations of the articles of British produce comprised in this class during the same year were:—

Cotton lace and patent net . . .	£ 465,611
Linen lace	322
Silk lace, of pure silk	63,351
„ mixed with other materials .	84,314
Embroidery and needlework of all kinds	174,670

7. The divisions of the trade carried on by hand and by machinery have already been referred to.

8. Mr. Birkin, in reporting upon the progress of machine-made lace in 1862, says that 'the style of work and designs generally are much improved, and more elaborate patterns are produced than formerly. This, no doubt, has been promoted by the facilities the application of the Jacquard has given to the lace-machine, and the more correct taste diffused amongst the designers and draughtsmen by the Schools of Art.' A School of Art has been in existence at Nottingham since 1843.

A considerable progress has also taken place in the manufacture of lace curtains.

Class XXXIV.

HOSIERY AND UNDERCLOTHING, AND ARTICLES APPERTAINING THERETO.

1. The manufacture of hosiery is principally carried on in the counties of Nottingham, Leicester, and Derby, and at a few towns in other counties in England; at Balbriggan in Ireland; and at Hawick, Galashiels, &c., in Scotland. Nottingham produces cotton and silk goods, Derby chiefly silk, and Leicester woollen articles.

The statistics of the Nottingham trade, as furnished by the Chamber of Commerce of that town to the Board of Trade, for 1866, were as follows:—

	No.
Narrow hand frames . . .	11,000
Wide hand frames . . .	4,250
Rotary frames . . .	1,000
Sets, circular frames . .	1,200
Warp frames . . .	400

There are no recent returns of each description of machinery employed at Leicester, but it is stated by the Chamber of Commerce that the old-fashioned narrow frames are being superseded by wide frames; also that the number of circular frames, which are used for low-priced goods principally, is rapidly increasing. The increase of the total population in the Leicester district from 67,000 persons in 1861 to over 80,000 persons in 1866, will indicate to some extent the progress that is taking place in the manufactures of the district.

The latest returns for Derby and Scotland are those published in 1861, at which date there were four hosiery factories in Derby, and four in Scotland.

The glove and umbrella trades are both of

considerable importance, although there are no returns of the actual production of these articles. Gloves are principally made at Worcester, Leicester, Nottingham, and in London. Large branches of the umbrella trade are located in Lancashire and in the Metropolis; and the manufacture of umbrella frames is extensively carried on in Birmingham.

2. The sources whence the raw materials employed in the hosiery trades are derived will be found noticed in the remarks to Classes 27–31.

3. The number of persons employed in the hosiery trade at Nottingham and district is about 64,000. There are no returns of the number of persons now engaged in the Leicester branch of this manufacture; but, according to the census of 1861, 22,000 were returned as so employed.

The average rate of wages paid to operatives in the hosiery trades at Nottingham and Leicester in the year 1866 were—

At Nottingham:		Per Week
Employed on—		
Narrow hand frames . .	Men, women, and youths . .	10s. 6d.
Wide hand frames . .	Men . . .	15s.
	Girls and women	4s.
Rotary frames	Men . . .	20s. to 32s.
	Girls and women	5s.
Circular frames	Men . . .	20s. to 35s.
	Youths and women	12s. to 20s.
	Girls and women (menders)	7s. to 12s.
Warp frames	Men . . .	16s. to 35s.
	Youths . . .	12s. to 20s.

The narrow and wide frames were at work in 4,700 shops, averaging three to four frames each, usually forming part of the dwelling-houses of the operatives. The operatives on the other machines are employed the usual number of factory hours.

At Leicester:		Per Week of 60 Hours
Plain Hosiery and Underclothing:		
Employed on narrow frames (males)		9s. to 15s.
„ wide frames „		20s. to 30s.
„ circular frames (females)		12s. to 20s.
Fancy Hosiery and Underclothing:		
Ordinary workmen (males)		14s. to 28s.
Skilled „ „		20s. to 35s.

The general condition of the workpeople in these trades has very much improved of late years.

5. The value of the principal articles included in this class imported into the United Kingdom in 1865 was—

	£
Hosiery, cotton . . .	70,502
„ woollen . . .	18,480
Stays . . .	8,890
Umbrellas and parasols (silk) .	4,722
Canes and sticks . . .	85,200

6. The value of the principal articles of British produce of the same kinds exported in 1865 was :—

Hosiery, underclothing, gloves, &c.:	£
Of cotton	453,837
„ linen	20,091
„ silk	26,698
„ wool	307,782
Umbrellas and parasols	160,177

7. A considerable proportion of the hosiery trade is performed by hand labour, but the productions by machinery are annually increasing in quantity, quality, and cheapness.

8. The extension of the home demand for the articles comprised in this class, in addition to the demand in the colonies, has led to great progress and improvement in these branches of national industry. One of the most important recent achievements at Nottingham has been the production of perfectly formed stockings and underclothing on the machines. The colours of fancy hosiery have also been greatly improved.

Class XXXV.

CLOTHING FOR BOTH SEXES.

Clothing of all descriptions, it is unnecessary to observe, is to a greater or less extent produced in every town and village throughout the country. There are, however, three important industries included in this class, viz. those of hat, bonnet, and boot and shoe making, which, having special localities of production, may be briefly noticed. As regards clothing peculiar to various professions and trades, the distinction of dress as marking particular classes of the community has, with few exceptions, disappeared in England. The national costumes of Wales, Scotland, and Ireland are to a certain extent maintained, but the general tendency of the middle and lower classes of society is to imitate the style of their superiors in matter of dress; the chief difference in their costume being that of fashion as to make, and quality as to material of which made. In no other country in the world, except perhaps America, do the working classes dress so well or so expensively as in the United Kingdom.

Hats are made in London, at Manchester and neighbourhood, and in other parts of Lancashire, Cheshire, Edinburgh, Glasgow, &c. The straw plait industry, which furnishes the raw material for straw hats and bonnets, is chiefly carried on at St. Albans, Dunstable, Tring, and a few other localities in England. The manufacture of boots and shoes is conducted on a very large scale at Northampton, Norwich, and Leicester. The latter is a special wholesale manufacture of riveted instead of sewn goods, and affords employment to some thousands of workpeople.

The following number of persons were employed in some of the principal branches of

trade connected with the manufacture of clothing in the year 1861 :—

Trades	In England and Wales	In Scotland	In Ireland
Tailors :			
Males	109,004	17,276	22,523
Females	27,386	473	932
Total	136,390	17,749	23,455
Milliners :			
Males	803	31	—
Females	286,298	33,066	50,854
Total	287,101	33,097	50,854
Hatters & Cap Makers :			
Males	11,502	707	886
Females	7,911	1,697	719
Total	19,413	2,404	1,605
Straw Hat and Bonnet Makers :			
Males	1,740	313	15
Females	22,245	1,336	1,343
Total	23,985	1,649	1,358
Straw-plait Makers			
Males	2,128	1	6
Females	27,739	30	162
Total	29,867	31	168
Boot and Shoe Makers :			
Males	211,233	26,786	41,207
Females	39,358	2,093	5,329
Total	250,591	28,879	46,536

The number of females employed in the manufacture of boots and shoes is exclusive of shoemakers' wives, who, in many instances, assist their husbands in some branches of the work. The total number of shoemakers' wives in Great Britain was returned as 90,970.

The average rates of wages paid in the Leicester boot and shoe trade in 1866 were—

	Per Week of 60 Hours	
	s.	d.
To machine hands (females)	12	0
„ fitters	11	0
„ nailers (males)	22	0
„ finishers „	30	0
„ cutters „	23	6

Fifty per cent. of the manufacture is performed by female operatives.

There are no recent statistics of the Northampton trade, but, according to the census of 1861, about 20,000 persons were engaged in the boot and shoe trade in that year.

The average rates paid in the hat trade at the undermentioned places in 1866 were :—

Silk Hat Makers	At Bristol	At Edinburgh	At Glasgow
	Per Week s. d.	Per Week s. d.	Per Week s. d.
Body makers . . .	25 0	33 0	34 0
Silk finishers . . .	25 0	30 0	36 0
Tipplers off . . .	30 0	39 0	40 0
Hours of labour per day . . .	8	12 to 15	10

The value of the imports and exports of hats, bonnets, &c., and of boots and shoes in 1865 was:—

IMPORTS.

Hats and bonnets :	£
Of straw	556,065
„ felt	35,812
Platting of straw . . .	102,886
„ other kinds	30,225
Boots and shoes	104,693

EXPORTS.

British Produce.

Hats :	£
Of felt	280,851
„ silk	25,909
„ straw	166,599
„ other kinds	10,235
Hatters' wares	70,343
Platting of straw, &c. . .	49,996
Boots and shoes	1,462,105

France furnishes the greater part of the imported goods, and the Australian colonies are the chief consumers of the British goods exported.

There is also a large export trade in apparel and slops from the United Kingdom, and which amounted in the year 1865 to—

Apparel, old and new . .	£ 1,933,000
Slops and negro clothing .	706,000

£2,639,000

About one-half of these exports went to the Australian colonies.

Class XXXVI.

JEWELLERY AND PRECIOUS STONES.

The manufacture of jewellery and of imitation jewellery in the United Kingdom is of considerable importance; the seat of the former being principally in the Metropolis, and of the latter at Birmingham. Owing to the increased wealth of the population of late years, the home demand for this class of goods has been very great. There are no returns of the production of the superior kinds of jewellery. The value of gold, silver, and precious stones used annually in the Birmingham trade is estimated at about one million and a quarter sterling. The number of persons who are employed in the Birmingham branch of the trade is about 7,500,

and the rates of wages earned by jewellers from 25s. to 50s. per week, and in some instances more. Enamellers earn from 3*l.* to 5*l.* per week; boys from 4*s.* to 11*s.*

The number of persons (exclusive of workmen) in the Metropolis engaged in the jewellery trade at the present time amounts to—

Jewellers	484
„ and goldsmiths . . .	159
Chasers	41
Jewellery case makers . .	36

The value of jewellery imported in 1865, chiefly from France and Belgium, amounted to 87,981*l.*, and of precious stones (exclusive of diamonds), 32,000*l.* The value of jewellery of British manufacture exported in the same year was:—

Jewellery &c. of gold or silver .	£ 94,313
„ of other sorts	69,918
	£164,231

A considerable rise in the value of precious stones has taken place during the last twenty years.

Machinery and steam power are employed in some branches of the jewellery trade, which have enabled the manufacturer to effect a large reduction in the price of the goods.

Mr. J. S. Wright, in reporting upon the Birmingham jewellery trade, says that it would not be right to omit to mention that the School of Art established in that town has largely contributed to the development of the artistic faculty in the jewellers of the place. Many hundreds of workmen have been trained there. The effects of the instruction they have received will be still more strongly marked in years to come.

Class XXXVII.

PORTABLE WEAPONS.

1. The manufacture of small arms is carried on at Enfield (the Government factory), at Birmingham, and in London. Bayonets, matchets, and swords are principally made at Birmingham, the latter from pieces of steel called 'sword moulds,' which are manufactured at Sheffield. The bulk of the fire-arms made for exportation is produced at Birmingham. The London manufacturers are celebrated for the make and finish of first-class rifles and sporting guns. Both the Birmingham Small Arms Association and the London Armoury Company manufacture fire-arms for the use of the Government.

2. The wood used for gun stocks is beech, grown chiefly in Gloucestershire and Herefordshire; and walnut, imported from Italy and Germany. The iron used for the making of gun barrels requires extraordinary care in its

preparation, and the Birmingham operatives have attained a high degree of perfection in its manufacture.

3. The number of workmen employed at the Government factory, when in full operation, is about 2,000. The Birmingham branch is estimated to employ over 7,000 operatives. The London trade afforded employment to about 2,000 persons in the year 1861.

The total number of persons employed as gunsmiths or gun manufacturers, in 1861, as returned by the census, was:—

In England and Wales	11,873
Scotland	204
Ireland	256
Total	12,333

4. According to a return made by the Birmingham Chamber of Commerce to the Board of Trade, in 1866, the average rates of wages in the gun-making trade ranged as follows:—

	Per Week of 60 Hours	
	s.	s.
Males—Adult	12	to 60
„ Boys	3	15
Females—Adult	6	12
„ Girls	3	4 6d.

Mr. Goodman, Chairman of the Birmingham Small Arms Company, in a report to the British Association in 1865, stated that, during the past ten years, there was little doubt that the wages earned in the gun trade had exceeded those in any other trade, and that workmen in some of the branches which require great skill earn, when in full employment, as much as from 5*l.* to 6*l.* a week.

5. The value of fire and side arms of all descriptions imported into the United Kingdom in the year 1865 amounted to 243,699*l.*, of which 192,000*l.* was from Belgium. The total importation of walnut wood was 5,689 tons, and of rough gun stocks 5,204 cwts. More than thirty-eight million percussion caps were also imported.

6. The following is the official return of the number and value of British small arms exported from the United Kingdom during the five years 1861–65:—

	No.	Value
1861	315,000	£515,000
1862	702,000	1,573,000
1863	439,000	856,000
1864	254,000	348,000
1865	291,000	424,000

The large exports at the beginning of the above period were caused by the demand in the United States. Mr. Goodman believes that the above returns understate the real value of the British export trade, as large numbers, and particularly high-priced sporting guns, are sent

out of the country without being entered at the Custom-house.

The principal descriptions of fire-arms, &c. exported in the year 1865 were:—

	No.
Muskets	173,153
Rifles	85,322
Fowling-pieces	15,505
Revolvers	8,061
Pistols, &c.	8,994
£	
Swords, cutlases, bayonets, &c.	4,538
Mille.	
Percussion caps	284,895

7. Machinery is now employed in the manufacture of all parts of fire-arms, and by its aid the English maker is enabled to compete successfully with manufacturers in foreign countries, who would otherwise, on account of the cheapness of labour at their command, be enabled to undersell him in the various markets of the world.

8. The improvements that have taken place in the last few years in the make of small arms are so widely known that a reference in this place is scarcely required. The most important recent improvement is the general introduction of the principle of breech-loading.

There are many branches connected with the trade in which the art-workman may find ample scope for his talents, and in which English makers already display a considerable amount of taste. The English workmen who may visit the present Exhibition will do well, however, to take a lesson from the articles exhibited by the Paris gun-makers, whose goods are renowned for the artistic beauty of their decorations.

Class XXXVIII.

TRAVELLING APPARATUS AND CAMP EQUIPAGE.

The manufacture of trunks, travelling-bags, and other articles comprised in this class forms an industry of considerable importance, but there are no means of ascertaining its actual extent. New forms of portmanteaus are almost daily appearing, intended to suit the wants of the numerous classes of travellers in the present day. Great improvements have also been made in the make of travelling-bags during the last ten years. The manufacture of travelling-rugs or railway-wrappers is carried on at Dewsbury and Huddersfield, and has now become a large branch of the woollen trade. The use of tents in the United Kingdom, with the exception of those used for agricultural purposes, is very limited, the chief manufacture being for the use of the Army on foreign stations.

Class XXXIX.**TOYS.**

Many descriptions of toys (especially wax-dolls) are largely produced in the United Kingdom, but owing to the peculiarities of the toy trade it is impossible to ascertain the value of the annual production of these articles.

The number of manufacturers engaged in

the toy trade in London (not including operatives) is:—

Toy makers . . .	44
„ dealers . . .	153
Doll makers . . .	19
Rocking-horse makers . .	8

The import trade in foreign toys has greatly increased since the year 1850, having risen from 46,130*l.* in that year to 163,024*l.* in the year 1865.

GROUP V.

(CLASSES XL.-XLVI.)

PRODUCTS (RAW AND MANUFACTURED) OF MINING
INDUSTRY, FORESTRY, &c.

Class XL.

MINING AND METALLURGY.

1. This class relates to the most important branch of the native productions of the country. It is principally owing to the abundance of her mineral wealth, and especially to the happy circumstance of coal and iron being produced in the same localities, that England has attained such a high position as a manufacturing state. The rapid development of railways and of steam navigation are also to be attributed to the same cause. The following abstracts of the production of minerals and metals in the United Kingdom in the year 1865 are taken from the official returns compiled by Mr. Robert Hunt, the Keeper of Mining Records:—

Coal produced in 1865.

Where produced	Amount raised
	Tons
Durham and Northumberland . .	25,032,694
Cumberland	1,431,047
Yorkshire	9,355,100
Derbyshire	4,595,750
Nottinghamshire	1,095,500
Leicestershire	965,500
Warwickshire	859,000
Stafford and Worcestershires . .	12,200,989
Lancashire	11,962,000
Cheshire	850,000
Shropshire	1,135,000
Gloucester, Somerset, and Devon-shires	1,875,000
Monmouthshire	4,125,000
South Wales	7,911,507
North Wales	1,983,000
Scotland	12,650,000
Ireland	123,500
Total	98,150,587

After deducting 9,000,000 of tons exported, and nearly 29,000,000 used in the manufacture of pig and bar iron, &c., there remained about 60,000,000 of tons for home consumption in domestic and other uses, or an average of more than 2 tons per head of the population. The annual average of coal produced in the ten years ending 1865 was 84,960,000 tons.

IRON ORE.—The total production of this ore in the year 1865 amounted to 9,910,000 tons.

It was raised in twenty English counties,—the largest returns being from the North Riding of Yorkshire, Cumberland, and Staffordshire—and in Wales, Scotland, and Ireland.

PIG IRON MADE.—The total make of pig iron in 1865 was 4,819,000 tons. The following table shows the chief localities of manufacture:—

Divisions and Counties	No. of Iron Works	No. of Furnaces built	No. of Furnaces in blast	Tons of Pig Iron produced
England:				
S. Staffordshire . .	64	172	114	692,627
York: N. Riding . .	14	65	53	486,421
Durham	19	65	47	476,767
N. Staffordshire . .	8	35	27	206,268
Lancashire	6	24	16	204,925
Derbyshire	15	41	34	189,364
York: W. Riding . .	14	38	29	123,233
Shropshire	11	29	23	117,343
Cumberland	4	16	9	107,430
Other counties . . .	21	42	24	134,489
Total	176	527	376	2,738,867
Wales:				
Glamorganshire . .	18	81	64	408,416
Monmouthshire . .	10	68	45	357,656
Other counties . . .	21	63	31	150,837
Total	49	212	140	916,909
Scotland:				
Lanarkshire	15	101	84	1,163,478
Other counties . . .	17	79	57	
Total	32	180	141	

The following number of forges and mills were at work in 1865, engaged in the production of finished iron:—

Divisions and Counties	No of Works	No. of Puddling Furnaces	No. of Rolling Mills
England:			
South Staffordshire . .	118	2,116	224
Durham	16	688	61
Yorkshire	30	922	115
Other counties	34	903	113
Total	198	4,629	513
Wales	39	1,395	170
Scotland	15	383	47
Total	252	6,407	730

There are no returns of the total production of *finished iron* in the United Kingdom. Mr. J. Jones, in a report to the British Association, at Birmingham, in 1865, estimated the annual production of the Staffordshire district at 855,000 tons, and the production of the iron-works in connection with the Northumberland and Durham coal-field is estimated at about 300,000 tons per annum.

The manufacture of steel is carried on to a large extent in the country, chiefly at Sheffield and also in Staffordshire and Northumberland, but there are no statistics of the total production.

The estimated production in Sheffield in 1862 was 79,000 tons of blistered, and 52,000 tons of cast, steel.

LEAD.—The amount of ore raised was 90,452 tons, and of lead produced 67,181 tons. Lead is produced in each division of the kingdom; the largest supply in 1865 was raised from mines in Durham and Northumberland.

COPPER.—198,298 tons of ore were raised, principally in the counties of Cornwall, Devonshire, and Cheshire; and 11,888 tons of Copper were produced in the United Kingdom in 1865.

TIN.—This mineral is found in Cornwall and Devonshire; and the amount of tin ore raised in 1865 was 15,686 tons. 10,039 tons of metallic Tin were produced in the same year.

Zinc, pyrites, small quantities of silver and gold, and several kinds of earthy minerals, are also produced in the United Kingdom; as are also building stones and clay, in large quantities.

Salt is produced in Cheshire, in Worcestershire, and in Ireland. The Cheshire salt works are capable of producing 1,000,000 tons per annum; the production of the Worcestershire works is about 200,000 tons per annum. The production of salt in Ireland is on a comparatively small scale.

The total value of the mineral productions of the United Kingdom in 1865 is stated as follows:—

	£
Metals	15,773,000
Coal	24,538,000
Earthy minerals . .	1,434,000

£41,745,000

The value of salt, clay, and building stones is not included in the above figures.

It would be impossible to give an outline of the numerous important trades connected with this class in the limited space allotted to these remarks. It can only be briefly mentioned that the iron hardware trades are centred chiefly at Birmingham, Wolverhampton, Walsall, and Sheffield; the brass and copper manufactures at Birmingham and Bristol; electro-plated wares at Sheffield and Birmingham; needles and fish-hooks at Redditch; pins at Birmingham; wire-drawing at Birmingham, Sheffield, Manchester, &c.; and edge-tools at Sheffield.

2. The raw materials employed in the British metal manufactures are chiefly drawn from the home supplies. Considerable quantities of minerals and metals are, however, annually imported. The subjoined table shows the quantities of the leading descriptions imported in 1865:—

Articles	Quantities
	Tons
Copper ore	82,562
„ regulus	39,686
„ unwrought and part wrought	21,717
Iron ore	76,977
„ pig	11,380
„ bar	51,464
Steel	6,777
Lead ore	5,584
„ pig and sheet	34,903
Silver ore	6,587
Tin ore	639
„ blocks, bars, &c.	5,698
Zinc, in cakes	22,193
„ rolled	8,492

Chili supplied the greater part of copper ore and regulus; Spain, France, and Sweden, the iron ore; Sweden, pig and bar iron and steel; Italy, lead ore; Spain, pig and sheet lead; and the Dutch settlements in the Eastern Archipelago, tin. Zinc was chiefly imported from Belgium, Holland, Hamburg, and Prussia.

3. The estimated number of males employed in collieries in the United Kingdom in the year 1865 was 315,000. The rates of wages paid to miners and hewers, adults, at Newcastle in 1866 was 5s. 9d. per day of 7 hours. The wages of males in other occupations connected with coal-mining ranged from about 3s. to 5s. per day; boys, 1s. to 3s. per day. The net earnings per head in the Staffordshire iron trade are roughly estimated at about 28s. to 30s. per week, though some workmen earn from 2l. to 4l. In Glasgow, iron-moulders, adults, obtained 29s. per week of 60 hours in 1866; boys, 4s. to 16s.; for other occupations in foundries, 15s. to 25s. In the Birmingham brass trade, blacksmiths and whitesmiths, 24s.; pattern makers, 33s.; and joiners in engineer work, 30s. per week of 58 hours. Cabinet lock-makers, 40s. In the Sheffield edge-tool trade, in 1866—forgers, 31s. to 36s.; strikers, 21s. to 24s.; grinders, 45s. to 50s.; and hardeners, 24s. to 28s. per week of 42 hours. There are no official returns of the number of persons employed in the above trades, and owing to the diversity of the occupations connected with them, it is scarcely possible to form a correct estimate.

The total number of persons engaged in connection with mining and metal manufactures in the United Kingdom in 1861 was about 1½ million persons. The condition of the miners is now the subject of much greater care on the part of the employer than was formerly the case, and the majority of owners of mines and of metal manufactures not only endeavour to promote the health and comfort of their workpeople, but also do a great deal to

to encourage the education of their children, and generally to contribute to the welfare of their families.

4. The total value of metal manufactures imported into the United Kingdom in the year 1865 was less than half a million sterling. The chief part of the importations consisted of iron wares, principally from Belgium and Holland.

5. The following table shows the quantities of the principal articles of British produce, comprised in this class, exported from the United Kingdom in the year 1865 :—

Articles	Quantities
Coal and coke Tons	9,170,000
Copper and wares Cwts.	632,000
Brass "	44,000
Hardwares £	3,924,000
Iron, pig Tons	547,000
" bar "	254,000
" railroad "	434,000
" other kinds and wares "	357,000
Steel "	24,000
Lead "	27,000
Plated wares £	112,000
Salt Tons	579,000
Tin Cwts.	104,000
" plates £	1,481,000
Zinc Cwts.	89,000

The total value of the above articles exceeded 28 millions sterling.

6. It is not possible to distinguish the divisions of the above trades which are carried on by hand and by machinery. The general tendency, however, is to substitute machine for hand labour wherever practicable.

7. The progress in the mining industry of the United Kingdom since the date of the last Paris Exhibition may be gathered from the increased production of minerals and metals in 1865 as compared with 1855. The production of coal increased 59 per cent. during the period; pig iron, 50 per cent.; tin, 66 per cent.; lead, 3 per cent.; while copper declined 44 per cent.

Great improvements have been made in the British hardware manufactures since 1851, most if not all of which may either directly or indirectly be said to have had their origin in the Industrial Exhibition held in London in that year. The work begun by the Exhibition was followed up by the Department of Science and Art, and by means of local exhibitions and instruction afforded at local Schools of Art, established in the centres of the manufacturing districts, an immense advance in the design and style of English goods has become apparent.

The jury on hardwares at the Exhibition of 1862 reported that 'it is gratifying to be able to state, that in one way or other there is an improvement in almost every object exhibited. There is greater neatness and regularity in the forms of the low-priced goods. More appropriate ornamentation is displayed on those articles which are both useful and ornamental, and a higher standard of art has been attained in ornamental metal-work for domestic and ecclesiastical decoration.'

Class XLI.

PRODUCTS OF THE CULTIVATION OF FORESTS, AND OF THE TRADES APPERTAINING THERETO.

Compared with those of foreign nations, the forests of the United Kingdom are of small extent. The annual value of the production of timber and other descriptions of wood is estimated at about two millions sterling. Oak, though not the most abundant, is the most important and valuable of British trees, and is extensively cultivated in the Royal forests.

The home production of timber is considerably below the demand, and large importations are annually made from abroad. Many other forest productions, not grown in the country, are also used in vast quantities. The following table shows the principal importations of such articles in the year 1865 :—

Articles	Quantities
Ashes, pearl and pot Cwts.	144,000
Bark, for tanning or dyeing "	431,000
Cork "	122,000
Corks, ready cut Lbs.	2,012,000
Galls Cwts.	16,000
Shumac Tons	18,000
Terra Japonica "	16,000
Valonia "	20,000
Wood and timber :	
Not sawn or split, including teak Loads	1,686,000
Deals, battens, &c., sawn or split "	2,136,000
Staves "	67,000
Firewood "	180,000
Hoops "	8,000
Lathwood "	105,000
Dyewoods Tons	44,000
Hardwoods "	68,000

The total value of the above articles amounted to 15,888,000*l.* sterling. A small amount of foreign timber is re-exported, but it is not of sufficient importance to be noticed.

Pot and pearl ashes were obtained chiefly from the British colonies in North America; bark from Belgium and Holland; cork from Portugal; corks, ready cut, from France, Spain, and Portugal; galls from China, India, and Turkey; shumac from Sicily; terra japonica from India and Singapore; valonia from Turkey; wood and timber from British North America and the Baltic; teak from India and Singapore; cedar from Cuba; and mahogany from Central America and the United States.

Class XLII.

PRODUCTS OF SHOOTING, FISHING, AND OF THE GATHERING OF FRUITS OBTAINED WITHOUT CULTIVATION.

Several articles comprised in this class, such as hare, rabbit, and other skins, feathers, horn, bone, wax, &c., are produced in the United

Kingdom but there are no means of ascertaining the extent of their production. The supplies of fish-oils and of whalebone have declined of late years, owing, in a great measure, to the discovery of materials which have been found to be better suited to the purposes for which the older articles were employed.

Although many of the most important articles included in this class are not produced in the country, they are largely consumed. The following figures show the quantities of the principal foreign products of shooting, fishing, &c., imported into the United Kingdom in 1865:—

Bark, Quercitron . . .	cwts.	24,954
„ for tanners . . .	„	405,856
Bones for manufacturing purposes . . .	tons	8,666
Bristles . . .	lbs.	2,566,000
Cork, uncut . . .	tons	6,103
Feathers, for beds . . .	cwts.	13,493
„ ornamental . . .	lbs.	54,211
Nuts, cocoa . . .	no.	2,545,000
„ ground . . .	tons.	1,939
Gums . . .	cwts.	182,000
Caoutchouc . . .	„	71,392
Gutta percha . . .	„	29,077
Hair, cow, ox, horse, &c. . .	„	74,851
Horns . . .	tons.	3,678
Isinglass . . .	cwts.	2,764
Oil, train . . .	tons.	10,005
„ spermaceti . . .	„	2,438
Quills . . .	no.	10,949,000
Rosin . . .	cwts.	459,000
Skins, coney . . .	no.	1,059,000
„ deer . . .	„	92,000
„ goat . . .	„	2,797,000
„ kid . . .	„	330,000
„ lamb . . .	„	708,000
„ sheep . . .	„	4,300,000
„ seal . . .	„	529,000
Ivory, elephants' teeth . . .	cwts.	10,268
„ vegetable . . .	„	22,313
Tortoiseshell . . .	lbs.	39,288
Wax, bees . . .	cwts.	10,600

The above figures relate to the total import trade; in some cases, a considerable re-exportation takes place.

Class XLIII.

AGRICULTURAL PRODUCTS (NOT USED AS FOOD) EASILY PRESERVED.

The principal articles produced in the United Kingdom which come within the limits of this class are raw flax and wool, seed-oils, and oak-bark. The production of the two former articles are referred to in Classes 28 and 30; but there are no means of arriving at the extent of the production of oak-bark in the country. As regards the production of seed-oil, there are no returns of its manufacture for domestic

and other purposes. It is, however, largely exported from the United Kingdom. In the year 1865 no less than eleven million gallons, valued at 1,547,000*l.*, were sent out of the country, but this quantity was not made from British seeds alone, large quantities of seeds for expressing oil therefrom being annually imported. In the year 1865 1,697,000 quarters of linseed, rapeseed, and other oil seeds were imported. In addition to the home production of bark, large quantities of tanning substances are imported. In the year 1865 the principal kinds of such substances imported were:—

	Tons
Bark for dyers or tanners . . .	20,292
Cutch . . .	2,120
Gambier . . .	13,588
Valonia . . .	19,702
Divi-divi . . .	3,711
Shumac . . .	13,045

The importations of seed-oils, chiefly from France, Holland, and Hamburg, amounted in the same year to 12,811 tuns, valued at £595,000.

Class XLIV.

CHEMICAL AND PHARMACEUTICAL PRODUCTS.

The manufacture of chemical products constitutes one of the leading industries of the country; and it may be regarded as important, not only as forming an independent trade of considerable extent, but also in its connection with the various manufacturing processes of the country in which chemical products are so largely employed. The chief seats of this industry are in the neighbourhoods of Newcastle, Liverpool, Glasgow, Bristol, and Birmingham. Chemicals are also produced in other parts of Lancashire, and the midland and southern counties of England.

The manufacture of most of the other articles comprised in this class is so widely scattered over the country that it is very difficult to particularise any special localities of production.

As regards the manufacture of soap and candles, the ordinary descriptions are made in almost all large towns throughout the kingdom. Soap is extensively produced; in the year 1852, the year before the repeal of the excise duty on soap, 203 million lbs. of hard, and 21 million lbs. of soft soap were charged with duty in the United Kingdom in that year. Since the repeal of the duty, no reliable accounts of the production have been obtained, although it is known to have considerably increased. So long as the excise duty remained upon the production of soap, very little was done in the way of improving and cheapening its manufacture; but upon the repeal of the duty a considerable amount of chemical knowledge was directed towards this object, and

soap may now be had at 2*d.* per lb. which formerly would have been chargeable with 3*d.* a lb. duty. Great improvements have been made in the production of the various kinds of perfumed and fancy soaps, of which there is now an extensive consumption. The fancy soaps are largely made in London, and in some of the chief towns of the country.

As regards candles, the tallow candle trade is carried on in almost every town in the country, and affords employment to many hundred hands. The manufacture of other descriptions of candles, such as wax and sperm, is chiefly located in large towns; and that of stearine, paraffine, and composite candles, with the exception of two works in Scotland and one in Ireland, is entirely confined to London and neighbourhood. There are no returns of the number of persons employed in the candle manufacture at the present date. According to the census of 1861, the following number were so employed in each division of Great Britain:—

	Males	Females	Total
In England and Wales	4,467	219	4,686
Scotland . . .	298	25	323
	4,765	244	5,009

Since the introduction of paraffine candles, the trade has remarkably improved and increased. Messrs. Field, who are exhibitors in this class, were the first to introduce this description of candle, which they did in the year 1857, since which time they have effected considerable improvements in their make, the most recent of which is the method of making the candles self-fitting. The chief recommendations of paraffine candles are—perfect freedom from grease, the production of a pure and beautiful light of a high illuminating power, and cheapness of price, taking their good qualities into account. Owing to the nature of paraffine, it is capable of being tinted in all colours, without detriment to its burning qualities.

The manufacture of india-rubber and gutta-percha has greatly increased during the past ten years, and is extensively carried on in many parts of the kingdom. Great progress has also been made in the production of dyes and colours within the same period. Alum, which forms an article of commerce of some importance, is largely produced at Whitby in Yorkshire. Phosphorus is made in very large quantities by the Messrs. Albright and Wilson, at Oldbury. The manufacture of mineral and other waters is carried on in many parts of the country, and afforded employment to 1,501 male and 98 females in the year 1861.

As there are no official statistics of the industrial productions of the country, it is impossible to ascertain the total number of persons engaged in the various trades comprised

in this class. The total number of Manufacturing Chemists returned by the census of 1861 in Great Britain was:—

	Males	Females	Total
In England and Wales	7,505	243	7,748
Scotland . . .	1,253	50	1,303
Total . . .	8,758	293	9,051

British Alkali Trade.

The most important manufacture in this class is that of the alkali trade, which comprises the allied industries of carbonate of sodium, sulphuric acid, hydrochloric acid, and bleaching agents; and as this manufacture is now carried on under Government inspection, the returns of the amount of salt decomposed afford a measure of the extent and increase of the trade. At the time of the Anglo-French Treaty of 1860, the quantity of salt used in the manufacture of alkali in this country was estimated by the representatives of the trade at about 250,000 tons per annum. The first report of the alkali inspector gives the quantity used in 1864 at about 300,000 tons, and the second report, for 1865, 325,000 tons, or an increase of thirty per cent. in five years. There are no accurate returns of the products derived from this decomposition, but estimates have been frequently formed.

Thus the jury on Class 2 at the Exhibition of 1862 published some interesting facts, furnished by Mr. C. Allhusen, relating to the alkali trade of the United Kingdom, by which it appeared that, so far back as 1852, the production of this trade amounted to—

	Tons	Value £
Alkali	71,193	711,930
Crystallised Soda . . .	61,044	305,220
Bicarbonate of Soda . .	5,762	86,430
Bleaching Powder . . .	13,100	131,000
	151,099	1,234,580

The increase in the trade between 1852 and 1861 is stated to have been as follows:—

	1852 (According to Mr. Allhusen's Return)	1861 (According to Mr. Gossage's Return)
	Tons	Tons
Alkali	71,193	156,000
Soda Crystals	61,044	104,000
Bicarbonate of Soda . .	5,762	13,000
Bleaching Powder . . .	13,100	20,000

Mr. Gossage estimated the total value of the products in 1861 to exceed two millions sterling, and the number of workpeople employed, in about fifty establishments, at 10,000.

The following table shows the production of the two principal alkali districts in the year 1861:—

	Newcastle-upon-Tyne	Lancashire (according to Messrs. Schunk, Smith, and Roscoe's Statement)
	Tons	Tons
Alkali	35,000	93,600
Soda crystals.	82,000	8,840
Bicarbonate of soda	12,000	11,700
Bleaching powder	11,400	8,060

Mr. E. K. Muspratt, the honorary secretary to the Lancashire branch of the Alkali Manufacturers' Association, states that, according to the returns of the manufacturers in that district, the present amount of salt annually decomposed is about 170,000 tons, or more than fifty per cent. of the whole trade of the kingdom.

The quantities of the undermentioned products manufactured in the Lancashire or Western district in 1866 amounted to—

	Tons
Soda Ash	81,800
Caustic Soda	11,500
Crystals of Soda	23,000
Bicarbonate of Soda	6,400
Sulphate of Soda, for sale as Sulphate	24,600
Bleaching powder	17,500

The computed value of the above products, at the current prices, was £1,726,200.

In addition to the alkalies manufactured in the district, large quantities of sulphuric acid (18,000 tons) and of hydrochloric acid (14,000 tons) were produced in 1866. The quantities of many other products have not been ascertained, but the total value of the chemical productions of the district may be estimated at about two millions sterling.

The production of the Tyne branch of the alkali trade at the present time (February 1867), is stated by Mr. R. Cail to be as follows:—

	Quantities	Value
	Tons	£
Soda Crystals	86,000	473,000
Soda Ash and Alkali	74,000	814,000
Bicarbonate of Soda	11,000	198,000
Sulphate of Soda	2,400	10,200
Bleaching Powder	27,000	278,000
Epsom Salts	590	4,720
Caustic Soda: 70 o/o	3,720	96,720
Glauber Salts	20	135
Oil of Vitriol, for sale	9,000	36,000
Sulphate of Copper	200	5,200
Muriatic Acid	700	2,100
Hyposulphite of Soda	400	7,200
Chloride of Manganese	1,300	4,550
Total	216,330	1,929,825

The two greatest improvements in the alkali manufacture during the last few years have been the increased production of caustic soda and bleaching powder, which are extensively used by papermakers in the preparation of esparto grass to serve as a substitute for rags.

It is to the abolition of the excise duties on

salt, glass, soap, and paper that the alkali trade of England owes its great development and perfection.

There are no returns of the production of other descriptions of chemical products, but they are extensively manufactured in different parts of the country.

In addition to the home production of raw materials employed in the manufacture of articles included in this class, there is a considerable importation from abroad, as will be seen from the table given below, showing the importations into the United Kingdom in the year 1865:—

Articles	Quantities
Alkali:	
Barilla	cwts. 15,762
Pearl and Pot Ashes	„ 143,779
Liquid Ammonia	lbs. 11,334
Other sorts	cwts. 19,352
Alum	„ 10,890
Annatto, roll and flag	„ 3,647
Argol	„ 20,004
Balsam:	
Capivi	lbs. 230,508
Peru	„ 17,626
Unenumerated	„ 46,240
Bark:	
Peruvian	cwts. 15,510
Quercitron	„ 24,954
Berries, yellow	„ 5,184
Boracic Acid	„ 20,627
Borax	„ 6,209
Brimstone	„ 981,106
Camphor:	
Unrefined	„ 10,430
Caoutchouc	„ 71,392
Cochineal	„ 24,260
Cream of Tartar	„ 49,165
Cubebs	lbs. 53,443
Divi-divi	tons 3,711
Gambier	„ 13,588
Gum:	
Copal	cwts. 8,607
Benzoin	„ 1,883
Arabic	„ 46,032
Lac-dye	„ 11,673
Shellac	„ 46,362
Mastic	„ 1,860
Gutta-percha	„ 29,077
Indigo	„ 66,506
Jalap	lbs. 166,761
Madder	cwts. 88,033
Root	„ 147,482
Munjeet	„ 1,837
Garancine	„ 33,571
Manganese Ore	tons 46,478
Naptha	gals. 238,360
Nitre, cubic	cwts. 1,020,383
Oil:	
Train	tuns 10,005
Spermaceti	„ 2,438
Cocoa Nut	cwts. 190,228
Palm	„ 798,724
of Turpentine	„ 112,129

Articles	Quantities
Oil—continued.	
Rock or Petroleum :	
Unrefined	tuns 5,662
Refined	gals. 2,112,831
Orchal.	cwts. 34,298
Paraffine	" 8,556
Potash :	
Prussiate of	lbs. 936,298
Sulphate of	" 1,421,102
Bichromate of	" 183,352
Muriate of	cwts. 49,567
Pyrites of Iron or Copper	tons 193,626
Quinine, Sulphate of	ozs. 364,089
Saltpetre	cwts. 311,390
Sarsaparilla	lbs. 472,968
Senna	" 749,389
Smalts	cwts. 1,300
Stearine	" 9,298
Tallow	" 1,361,248
Tartaric Acid	lbs. 299,810
Turpentine	cwts. 44,428
Ultramarine	" 27,512
Water, Mineral	gals. 83,580
Wax, Bees	cwts. 10,678
Vegetable	" 3,079

It must be borne in mind, however, that in some instances a large proportion of these articles is re-exported.

The average rates of wages paid to operatives in some of the principal branches of the chemical manufactures of the country, according to returns furnished to the Board of Trade in 1866 by the Newcastle and Bristol Chambers of Commerce, were:—

	At Newcastle Per Day of 10 Hours	At Bristol Per Day of 10½ Hours
	s. d.	s. d.
Sulphuric acid makers	4 6	3 6
Sulphate of soda "	4 8	4 8
Crude soda "	4 6	4 0*
Carbonate of soda "	4 6	4 8
Crystals of soda "	3 8	3 0
Bicarbonate of soda "	3 8	—
Bleaching powder "	5 2	4 0*
Caustic soda "	—	4 6
Chloride calcium "	—	3 0
Sal Ammoniac "	—	4 0

* Eight hours per day.

The average rates of weekly wages paid in the soap-boiling trade in the year 1866 at the three following places were:—

	At Bristol	At Edinburgh	At Glasgow
Soap boilers	40s.	25s.	36s.
Assistant "	16s. 6d.	15s. to 19s.	18s.
Vat men "	18s. to 20s.	15s.	12s. to 18s.

Hours of labour, 60 hours.

In the paraffine candle trade the average rates of wages paid to the leading men in the trade is about 30s. to 42s. per week. Hours of labour ten and a half per day.

The exports of the principal descriptions of

British chemical productions, soap, candles, &c., in the year 1865 were as follows:—

	Quantities	Value
Alkali :		£
Caustic soda, } soda ash, and refined alkali, }	cwts. 1,799,637	842,170
Crystals of soda . . .	641,442	199,376
Bicarbonate of soda . .	131,715	82,400
Alum	75,166	26,885
Aniline, dye stuffs . .	41,165	1,914
Blackening	£ —	20,674
Bleaching materials . .	cwts. 220,140	117,148
Borax, refined in the United King- dom	" 16,897	46,440
Brimstone	" 57,795	31,783
Candles :		
Stearine	lbs. 3,222,585	110,575
Other sorts	" 403,838	12,973
Caoutchouc ma- nufactures	£ —	465,700
Copperas	cwts. 79,420	47,721
Drugs and chemical products :		
Medicines	£ —	477,026
Unenumerated, used in dyeing and other pro- cesses sub- servient to manufactures and the arts }	" —	442,230
Epsom and Glau- ber salts, and salt cake	cwts. 158,648	33,986
Lead, red	" 68,452	78,890
" white	" 66,763	91,267
Lucifer and vesta matches	£ —	104,755
Naphtha, paraffine oil, petroleum, &c }	gals. 1,907,032	236,624
Painters' colours and materials not otherwise enumerated	£ —	473,051
Perfumery	—	94,351
Salt, rock and white . .	tons 579,050	274,631
Saltpetre	cwts. 59,938	93,547
Soap	" 140,241	184,279
Starch	" 16,445	26,261
Turpentine, oil or spirit of, and turpentine sub- stitute	gals. 88,713	22,105

The exportations of alkali and soda have increased very largely during the past ten years. In the year 1866 only 1,405,000 cwts. were exported, against 2,998,000 cwts. in 1866.

The progress in the manufacture of chemical products in recent years has fully kept pace with the increased demand for them, and, as has just been stated with regard to the important class of alkalies, in addition to furnishing the increased wants of home manufacturers, the foreign trade has been greatly extended. Considerable improvements have been made in the processes employed in the manufacture of sulphuric acid and many other chemicals, and especially in the condensation of hydrochloric acid gas in the alkali manufactories. An important revival in the phosphorus trade has also taken place: instead of importing phosphorus, as was the case some few years back, the English manufacturers now successfully

compete with foreign makers in most of the continental markets. The improvements in the manufacture of soap and candles, owing to many recent discoveries, have been very great, and the discovery of aniline and similar dyes has given rise to a very extensive trade in these articles. The application of india-rubber to an infinity of trade and domestic purposes, has also been the means of affording employment to a large class of operatives. A reference to the articles exhibited in this class will, however, afford a better idea of the importance of the various branches of industry connected with it than it is possible to convey in the limited space allotted to these introductory remarks.

Class XLV.

SPECIMENS OF THE CHEMICAL PROCESSES FOR BLEACHING, DYEING, PRINTING, AND DRESSING.

A notice of any important improvements in the processes comprised in this class will be found in the introductions to the classes on textile manufactures and carpets, &c.

Class XLVI.

LEATHER AND SKINS.

The manufacture of leather has been estimated as only fourth in importance among the national manufactures of Great Britain. It is very largely carried on at Bermondsey, near London, and to a less extent in several parts of the country. Compared with the population, more leather for general use is prepared in England than in any other country. The total annual value of leather manufactures was computed in the year 1851 at fourteen millions sterling; but this is probably far below the present value, as the trade has steadily increased since that date. There are no records of the quantities of raw

hides produced in the United Kingdom; but, in addition to the home supply, which must be very extensive, large importations of raw hides from India, South America, and other parts of the world are annually made. There is also a large importation of tanned, tawed, and dressed leather.

The following table shows the quantities and value of hides and leather imported during the five years, 1861-65:—

Years	Hides, raw	Hides, tanned, &c.	Total value
		lbs.	£
1861 . .	830,000	5,219,000	2,903,000
1862 . .	943,000	5,512,000	3,204,000
1863 . .	1,023,000	5,202,000	3,230,000
1864 . .	954,000	6,446,000	3,152,000
1865 . .	968,000	7,352,000	3,073,000

A large proportion of foreign raw hides is re-exported. The exports of British tanned leather, unwrought, in the five years 1861-5 amounted to—

	Cwts.	£
1861 . .	40,000	361,000
1862 . .	43,000	406,000
1863 . .	47,000	441,000
1864 . .	38,000	382,000
1865 . .	43,000	409,000

The exportations of leather manufactures will be found noticed in other classes, under which they are arranged.

The rates of wages earned by tanners are about 25s. per week, and by curriers and dressers 34s.

Several new raw materials for the purpose of dressing skins were exhibited at the London Exhibition of 1862, many of which were pronounced by the jury to be equal, if not superior, to the ordinary oak-bark usually employed; but the old method of tanning is still extensively in use.

The manufacture of leather for gloves, of parchment, of gold-beaters' skin, and of strings for musical instruments is also carried on in the United Kingdom, but there are no records of the extent of the respective industries.

GROUP VI.

(CLASSES XLVII.-LXVI.)

APPARATUS AND PROCESSES USED IN THE COMMON ARTS.

Class XLVII.

APPARATUS AND PROCESSES OF THE ART OF MINING AND METALLURGY.

It would require more space than can be here devoted, to enumerate the almost countless descriptions of apparatus and machinery which are employed in the various branches of industry comprised in this class. The development of the mining and metallurgical resources of the country is chiefly owing to the use of machinery; and, in fact, many mines could never have been worked, and many metallurgical processes could never have been performed, without the aid of steam power. There are no records of the number of steam-engines, nor of the amount of motive-power employed in the mines and in the metal manufactories of the United Kingdom. Machinery is, however, extensively used for raising minerals in the shafts, for draining mines, and, in some cases, for purposes of ventilation, although, for the most part, English coal-mines are ventilated by means of furnaces. Considerable improvements have been made in late years in winding machinery, in the better adaptation of the furnace for ventilating purposes, and also in the construction of mechanical ventilators. Boring by steam is one of the most important recent inventions. Machines for coal-cutting, and a complete model of the apparatus and machinery employed in the Bessemer process of manufacturing steel are exhibited in this class.

As regards safety-cages, or parachutes, none of the methods at present devised have given general satisfaction, although several kinds are in use.

The safety-lamps used in the coal-mines in Great Britain are chiefly the old-fashioned 'Davy' and the 'Stephenson' or 'Geordie' lamp, both protected throughout by gauze, although Mueseler's lamps have been successfully introduced into a few English collieries.

Class XLVIII.

AGRICULTURAL APPARATUS AND PROCESSES USED IN THE CULTIVATION OF FIELDS AND FORESTS.

The manufacture of machines and implements for agricultural purposes has been brought to a high pitch of excellence in the United Kingdom; and, in addition to being largely produced for home use, agricultural machinery and implements are annually exported in considerable quantities. The employment of steam power for many farming operations is now in very general use. Great attention has been given to farming of late years, and by means of improved drainage and the use of artificial manures and improved apparatus the fertility of the soil has been vastly augmented. The carts and waggons employed in the United Kingdom for agricultural purposes are, as a rule, greatly superior to those used abroad for similar purposes.

In noticing the recent progress in the objects comprised in this class, the jury on agricultural implements at the London Exhibition of 1862, especially drew attention to the increased use of the movable steam-engine for corn-thrashing, of the steam plough and cultivator, of the reaping and mowing machines, and of the employment of machinery for pulping the food for cattle.

The manufacture of agricultural implements and machinery is extensively carried on at Lincoln, Peterborough, Grantham, Bedford, Ipswich, Leiston, Stowmarket and many other parts of the country.

There are no statistics of the production of the articles included in this branch of native industry, but some idea of their importance may be inferred from the number of exhibitors in this class.

The value of agricultural implements exported from the United Kingdom in the year 1865, amounted to 210,000*l.*; of agricultural

machinery (except steam), 282,000*l.*; and of implements composed wholly of iron, 13,000*l.* There is no separate return of locomotives for agricultural purposes exported, but some hundreds are annually sent to foreign countries.

The following were the principal articles imported in the year 1865 for purposes of manure:—

	Quantities	Value
	Tons	£
Bones	65,642	362,000
Guano	237,393	2,676,000
Manures: Unenumerated	8,025	49,000

Class XLIX.

APPARATUS USED IN SHOOTING; FISHING TACKLE; AND IMPLEMENTS USED IN GATHERING FRUITS OBTAINED WITHOUT CULTURE.

The manufacture of sporting guns is carried on chiefly at Birmingham and in London. A notice of the industry will be found under Class 37.

Fishing tackle is made to some extent in the country. Fish-hooks, eel-spears, harpoons, and baits and tackle are extensively manufactured at Redditch, and a large branch of the trade in fishing-rods, artificial flies, lines, floats, nets, &c., is carried on in London.

About 600 persons are employed at Redditch in the manufacture of fish-hooks, and according to the census of 1861, 670 persons were employed in England and Wales, and 60 persons in Ireland in the manufacture of fishing rods and tackle. Artificial flies and baits are made at Redditch chiefly by girls and women. The rates of wages earned at Redditch are stated to be about 8*s.* to 15*s.* per week for women and 12*s.* to 40*s.* for men. In London the rates are higher, the leading operatives in the trade earning from 40*s.* to 80*s.* per week, working from eight to twelve hours per day.

The value of fishing-tackle exported from the United Kingdom in the year 1865, amounted to \$1,000*l.*

Class L.

APPARATUS AND PROCESSES USED IN AGRICULTURAL WORKS, AND IN WORKS FOR THE PREPARATION OF FOOD.

Machinery is very extensively used in the United Kingdom for the manufacture of drain-pipes, for bone-crushing, for grinding corn, and for bread-making, for many other processes comprised in this class. It is not possible in this place to refer to the numerous

improvements that have been made in various parts of the machinery employed in the above branches of trade; but the increasing competition of manufacturers in the home and foreign markets, is sufficient of itself to induce producers to adopt every improvement that is discovered for the purposes of increasing the power of their production, and thus enabling them either to undersell or make greater profits than their rivals.

There are no returns of the number or steam power of machines employed in the trades referred to in this class.

Class LI.

APPARATUS USED IN CHEMISTRY, PHARMACY, AND IN TAN YARDS.

The multiplicity of processes in use in the several branches of trade connected with this class renders it difficult, in the short space allotted to these remarks, to allude to even the more important apparatus at present in use. The rapid progress of science of late years, however, has been greatly instrumental in perfecting many old as well as in introducing many new processes connected with the chemical productions of the country. A few of the recent improvements are exhibited in this class.

Class LII.

PRIME MOVERS, BOILERS, AND ENGINES SPECIALLY ADAPTED TO THE REQUIREMENTS OF THE EXHIBITION.

As the articles exhibited in this class have been selected for a particular purpose, it remains for the decision of the authorities to state how far the articles furnished by English exhibitors have been found suited to the purpose. A notice of the general British machinery trade will be found under Class 53.

Class LIII.

MACHINES AND APPARATUS IN GENERAL.

The commercial prosperity of the United Kingdom is due, in a very great degree, to the possession of an abundant supply of the raw materials requisite for the manufacture of machinery, and of coal for working it when made, as well as to the high degree of perfection to which the manufacture has been brought in its application to the almost countless processes connected with the national industries of the country. If no other proof existed of the

importance of the trade, the mere fact of the annually increasing demand for British machinery in foreign countries, would be sufficient to prove the high position it holds among the manufactures of the country.

Machines and machinery are largely manufactured at Manchester, Leeds, Birmingham, Sheffield, Newcastle, Glasgow, and many other places throughout the country. Marine engines are made chiefly at the works on the banks of the Thames and the Clyde, although they are produced on a smaller scale at Newcastle, and in other parts of the kingdom.

The manufacture of hydraulic machinery, pulley-blocks, sewing-machines, and nail-making machinery, is extensively carried on at Birmingham, as well as that of brass and copper tubes for machinery, which latter articles are also produced in Bristol, Manchester, Liverpool, and Newcastle. Agricultural machinery also forms an important branch of the machinery trade, but as it is included in Class 74 it need not be further alluded to in this place.

The number of male persons engaged in the manufacture of machinery in each division of the United Kingdom, according to the census of 1861, was—

In England and Wales, about	72,000
Scotland	10,500
Ireland	900
	83,400

Owing to the numerous subdivisions of the machinery trade it is difficult to ascertain the actual number of persons engaged in it. The above figures, however, are believed to be tolerably correct.

There are no complete returns of the average rates of wages earned in the general machinery trade of the country; in most branches, however, skilled labour is very highly remunerated, and, owing to the constant employment afforded, the operatives connected with the trade are, comparatively speaking, in easy circumstances. The last returns of the average rates of wages paid to mechanics at Manchester were made in 1859, at which date they were as follows:—

Pattern-makers, smiths, boiler-makers, and millwrights, 32s.; joiners, 28s.; planers, 22s.; borers, 20s.; and strikers, screwers, drillers, and slotters, 18s., per week of 58 hours. The average rates at Glasgow in 1866 were stated as 25s. for boiler-makers, and 24s. for smiths, per week of 60 hours. The average rates earned in the manufacture of hydraulic machinery at Birmingham are stated to be, for skilled hands, about 55s.; and for second-rate hands, from 30s. to 40s. per week.

The value of British machinery of all kinds exported from the United Kingdom, increased from 2,243,000*l.* in the year 1855, to 5,222,000*l.* in 1865. The following table shows the principal descriptions of machinery exported in the last-named year:—

Machinery and mill-work:		£
Steam engines or parts of steam engines	{ Locomotive Other than locomotive	945,451
		1,013,082
Not being steam-engines	{ Agricultural Other descriptions	282,019
		2,982,081
Total		5,222,633

In a class comprising such an infinite variety of objects, and in which improvements are of daily occurrence, it is difficult in a few lines to point out what amount of progress has been made within the past few years. The jury on Class 8 at the Exhibition of 1862, taking the articles exhibited at the previous Exhibition of 1851 as their standard of comparison, stated that, 'with respect to steam-engines, it may be observed that they show an increased employment of high pressure, great expansion and super-heating, an increased use of surface condensation (generally effected by means of a great number of small horizontal tubes), a tendency towards simplicity in the framing and main-moving parts, a general abandonment of devices that are more curious than useful, and a higher perfection of workmanship and finish, all of which improvements continue to produce greater economy of fuel, power, and repairs.' 'The general remarks as to progress in land-engines, are applicable to marine engines also. The improvements in workmanship are even more striking.' Considerable progress was also noticed in heavy castings, or forgings in the rough, as well as in many separate parts of machines and miscellaneous pieces of mechanism. With regard to any important improvements since 1862, most of them will doubtless be found amongst the articles exhibited in this class.

Class LIV.

MACHINE TOOLS.

The manufacture of machine tools has already been brought to a high degree of perfection in the United Kingdom, but there is still room for greater improvement, both as regards simplicity in the construction of many of the tools, as well as in their adaptation to a greater variety of uses.

Machine tools are extensively made in Manchester, Sheffield, Leeds, and many other towns, &c. in the kingdom. Since the introduction of steam as a motive power the increased employment of machine tools has been enormous, and there are now few processes connected with the leading manufactures of the country that are not carried on by means of machinery and machine tools.

The chief advantages derived from the use of machine tools as compared with hand labour, are increased power of production, exactness in

quality, and regularity in amount of work accomplished; and, owing to the greater power of production secured to the manufacturer by the use of such implements, he is enabled to pay high rates of wages to skilled hands, and thus to improve the condition of the operative.

There are no returns of the number of workpeople employed in this branch of industry, nor of the annual value of the production of the trade. In addition, however, to the make of these articles for home use, they are largely exported. In the year 1865 the exportations of machinery &c. more or less connected with this class were:—

	£
Steam engines and parts of steam engines (other than locomotive) . . .	1,013,000
Machinery and mill-work (other than steam engines) . . .	2,982,000
Tools and implements for industrial purposes, not being classed as machinery . . .	87,000

The establishment of Government Schools of Science and Art in the various manufacturing towns has been very beneficial to the class of operatives employed in the manufacture of machinery and machine tools, who are enabled by the instruction they receive, not only to become better workmen, but also improvers of old, as well as inventors of new machinery; increasing thereby the manufacturing power of the country, and at the same time elevating their position in the social scale.

Class LV.

APPARATUS AND PROCESSES USED IN SPINNING AND ROPEMAKING.

The manufacture of rope, cordage, &c. is widely spread throughout the country, but the chief seats of the rope-making industry are at Liverpool, Newcastle and other Tyne ports, in London, and in a few Scotch ports. Ropes for the use of the Navy are also made at the Royal Dockyards. The rapid extension of the use of wire-rope for rigging of ships, and colliery and other purposes, has led to great improvements in the manufacture of rope-making. The two submarine cables which now exist between the United Kingdom and America are sufficient of themselves to mark the high position to which wire rope-making has attained in the country. As regards machinery employed in spinning, a notice will be found under the respective classes of textile manufactures; several machines are, however, exhibited in this class showing the latest improvements that have been made in this kind of machinery.

The number of persons engaged in the manufacture of ropes, cord, &c., according to the census of 1861, was:—

	Males	Females	Total
In England and Wales . . .	11,762	1,724	13,486
Scotland . . .	2,313	267	2,580
Ireland . . .	1,132	33	1,165
Total . . .	15,207	2,024	17,231

The materials used in the manufacture of ropes are chiefly imported from Russia, Italy, and the East Indies. In the year 1865 the principal articles imported for this purpose were as follows:—

	Quantities	Value
Cable yarn of hemp } lbs. 11,082,747		£163,932
&c. (except coir) . . .		
„ of coir . . . cwt. 97,674		177,609
Hemp dressed and undressed . . .	1,065,705	1,704,187

The above figures represent the total quantities of hemp imported—only part of which is employed in the rope manufacture.

Wire-rope is made principally at Gateshead and Birmingham, although the wire used is chiefly drawn at the latter place.

The quantities and value of British cordage and twine exported in the year 1865 were:—

	Quantities	Value
Cables and ropes:		
Hemp . . . cwt. 130,715		£268,677
Other kinds . . .	14,009	27,692
Twine . . .	23,449	117,844

Wire-ropes are not distinguished in the exportations from other manufactures of wire.

Class LVI.

APPARATUS AND PROCESSES USED IN WEAVING.

The chief seats of the manufacture of machinery for weaving, as also for spinning, are at Manchester, Oldham, Bury, and many other parts of Lancashire, at Leeds, Halifax, Bradford in Yorkshire, and at Glasgow and Dundee in Scotland. Although this class of machinery has been brought to a high degree of excellence, improvements are constantly being made in various parts of the machinery, rendering it more complete and self-acting, and increasing its power of production. An inspection of the complete series of preparing, spinning, and weaving machinery for cotton, woollen and worsted, exhibited by the well-known firm of Messrs. Platt & Co. in Class 55, will afford a better idea of the character of this class of machinery now in use in the English factories, than any short description can convey.

There are no statistics of the number of persons employed in this branch of the machinery manufacture of the country. A considerable amount of industrial machinery is annually exported from the country, as will be seen by referring to the remarks under Class 53.

Class LVII.**APPARATUS AND PROCESSES FOR SEWING
AND FOR MAKING-UP CLOTHING.**

The most important apparatus included in this class are those for sewing and boot-making by machinery. Sewing-machines were first introduced into England, from America, in 1845 or 1846, since which date numerous improvements have been effected in their construction, and they are now almost universally employed for plain and ornamental work. The jury at the London Exhibition of 1862 stated that during the ten years since 1851, considerable progress had been made in the manufacture of boots and shoes by machinery. A very large wholesale trade of riveted boots and shoes, principally for women and children, has sprung up, during the last few years, at Leicester. The shoe-pegging and peg-cutting machines of Messrs. Greenwood and Batley were highly commended by the jury in 1862, and obtained a prize-medal. As the manufacture of boots by machinery effects a great saving in the cost of production when compared with that of hand labour, it is hoped that the present Exhibition will disclose still further improvements in the machinery already in use in this important branch of industry.

Class LVIII.**APPARATUS AND PROCESSES USED IN THE
MANUFACTURE OF FURNITURE AND OBJECTS
FOR DWELLINGS.**

Several of the apparatus falling within the limits of this class, such as wood-cutting, planing, and moulding machines, &c. will be found exhibited in Class 54 as machine tools. Machinery is now so generally employed in all branches of manufacture in the United Kingdom, that a brief allusion to the several descriptions in use would exceed the limits of these remarks. The growing tendency of trade towards a concentration of the leading manufactures of the country in the hands of large firms and companies, employing a considerable amount of capital, has led to an increased use of machinery for facilitating their vast operations, and for economising their expenditure for labour. A notice of the chief localities of manufacture will be found under Class 53.

Class LIX.**APPARATUS AND PROCESSES USED IN PAPER-
MAKING, DYEING, AND PRINTING.**

The importance of the paper trade has already been noticed in the remarks to Class 7. But although the production of paper has of late years so vastly increased, few improvements

have been made upon the continuous paper-making machine, introduced about the beginning of the present century. Specimens of paper-making machinery now employed will be found exhibited in this class. The chief improvements connected with printing processes since 1851, are the introduction of machinery for casting type, and of type composing and distributing apparatus. Many improvements in machinery for printing have also been made during the past ten years to meet the enormously increased demand for newspapers, books, and periodicals, which has taken place within the same period. The exports of the several descriptions of machinery included in this class are not separately registered, but are included in the general returns, which will be found stated under Class 53. The value of British made printing type and materials exported from the United Kingdom in the year 1865 amounted to 68,930*l*.

Class LX.**MACHINES, INSTRUMENTS, AND PROCESSES
USED IN VARIOUS WORKS.**

Although no great changes have taken place of late years in the machinery employed for the manufacture of most of the articles included in this class, many important improvements have been made in the direction of perfecting already existing machinery. The manufacture of buttons, pins, pens, and needles, constitutes a considerable branch of native industry. The chief seat of the manufacture is at Birmingham and neighbourhood. The button trade is estimated to employ about 6,000 persons, and the average rates of wages paid to males employed in the trade is about 2*s*.; to females, 7*s*. to 9*s*.; and to girls and young children, 1*s*. to 1*s*. 6*d*. per week. There are no statistics of the number of persons engaged in the pin trade at the present time, but according to the returns made at the census of 1861, the total number of males employed in this branch of trade in England and Wales was 322, and of females 407. Pins are now almost entirely made by machinery—a machine being employed which, during the revolution of a single wheel, produces a perfect pin. Needles are principally made at Redditch, and the manufacture employs about 8,000 workpeople. The average rates of wages earned in the trade are for males, 12*s*. to 40*s*.; for females, 8*s*. to 15*s*.; and for children, 1*s*. 6*d*. to 5*s*. per week. Messrs. Bartlett and Woodward, in reporting upon the needle trade of Redditch, state that in social condition the workpeople are generally above the average in cleanliness and tidiness. A needle has to pass through seventy pairs of hands before it is considered to be finished and fit for use. The manufacture of steel pens is chiefly located at Birmingham, and affords employment to about

360 men and to 2,000 women and children. The number of pens made weekly is 98,000 gross. Most of the steel used in the manufacture is produced at Sheffield. The above figures are extracted from a report of Mr. Timmins, who also states that the condition of the workpeople engaged in the pen trade is very satisfactory. The wages of girls range from 5s. to 12s. per week, some of the younger only earning from 2s. 6d. to 3s. 6d. A few skilful workwomen make from 15s. to 20s. Men earn from 18s. to 20s.; boys, according to skill, from 4s. 6d. to 16s.; and skilled adults, males, from 30s. to 80s. per week. Hours of labour $52\frac{1}{2}$ to 57 per week. The process of pen-making, as well as that of pin and needle making, will be found illustrated in the contributions from Birmingham, Stadel, and Redditch exhibited in this class.

Class LXI.

CARRIAGES AND WHEELWRIGHTS' WORK.

The chief seat of the carriage manufacture is in London, though the industry is carried on at Edinburgh, Dublin, Liverpool, Derby, Manchester, Nottingham, Glasgow, Southampton, Newcastle, and other towns in the kingdom.

The number of persons engaged in this branch of trade in each division of the United Kingdom in the year 1861 was:—

	Coachmakers	Wheelwrights
In England and Wales	18,870	30,070
Scotland	1,550	1,282
Ireland	3,000	591
Total	23,420	31,943

There are no general returns of the rates of wages paid to operatives employed in coachbuilding, but the rates paid in this branch of trade in Edinburgh in 1866 were:—

	Per week of 57 hours	
	1st class	2nd class
Males :	£ s. d.	£ s. d.
Smiths	1 7 0	1 2 0
Body makers	1 10 0	1 2 0
Carriage makers	1 3 0	—
Painters	1 2 0	1 0 0
Trimmers	1 5 0	1 0 0
Wheelwrights	1 2 0	0 18 0
Spring makers	1 6 0	—

It was stated in the report upon carriages at the London Exhibition of 1862 that the condition of the operatives engaged in coachbuilding has much improved of recent years; intemperate habits have diminished among them, and education has increased. As the success of coachbuilding depends much on a knowledge of sound mechanical principles, of the arts of design, and the harmonious combination of

colours, it is essential that the operatives in this branch of industry should receive a sound art education.

The value of carriages imported into the United Kingdom in the year 1865 amounted only to 5,800l. The value of British carriages exported in the same year was 175,000l.; and of carts and waggons, 8,400l. A large number of the carriages were sent to British India.

Among the improvements that have taken place in the manufacture of carriages, the application of machinery in some branches of the trade is worthy of notice. Owing, however, to the peculiar nature of the trade, it is doubtful whether machinery will ever be economically used for making private carriages, which necessarily differ in every respect as widely as the tastes of the persons who order them to be built. Considerable progress has been made in the design, colour, and lightness of private carriages since 1851, as well as in the tools required for their construction.

A great increase in the demand for vans, waggons, and carts has been created by the extension of the railway system throughout the country, and many new descriptions of vehicles have been introduced for the purpose of distributing goods from the several railway stations. Considerable improvements have also been made since 1851 in the omnibuses used in the metropolis, as well as in vans for the removal of furniture.

Railway carriages are noticed in Class 63.

Class LXII.

HARNESS AND SADDLERY.

1. English saddlery and harness has long been celebrated for the excellence of its quality and workmanship. The chief centres of the manufacture are at Walsall, Birmingham, the Metropolis, and Glasgow; it is also made at many other towns in the kingdom. Several smaller trades are connected with this industry, such as the manufacture of bits, stirrups, chains, and other fittings and ornaments, which are chiefly made in the same localities.

2. The leather employed in the trade is principally of home manufacture.

3. According to the census of 1861, the following number of persons were engaged in this branch of industry:—

In England and Wales	18,229
Scotland	1,822
Ireland	2,968

23,019

And probably from 500 to 600 persons employed as saddle-tree makers and saddlers' ironmongers.

4. The wages in the Walsall saddlery and harness trades are rather above the average. The earnings of workmen vary from 20s. to 45s.

per week. The girls and women can earn from 8s. to 13s. per week. The wages of apprentices for the first year is 3s.; in the latter years of their apprenticeship they get from 12s. to 14s. Hours of labour, 7 or 8 a.m. to 7 p.m.

The saddle and harness factories at Walsall are very neat and well built.

It is stated that about 60 per cent. of the employment at Walsall is carried on by female operatives, many of whom work at their own homes. The introduction of the sewing-machine for stitching harness has greatly economised labour in this branch of the trade.

5. There are scarcely any importations of saddlery and harness into the country.

6. The value of British saddlery and harness exported from the United Kingdom during the five years 1861-65 amounted to—

	£
1861	307,700
1862	343,600
1863	341,600
1864	345,900
1865	350,500

The greater proportion of these exports went to the British colonies, and especially to Australia.

7. Mr. Franklin, in reporting upon the Walsall trades in 1865, states that 'it may be worthy of remark that little inventive genius has been displayed, and few changes of form and appearance made in harness or saddlery since 1849, the exception being the "Nolan" saddle, invented during the Crimean war, and now generally used in the Army: it is, however, only suitable for military purposes. Considerable progress has, however, been made in the ornamentation of saddles and harness, and many of the saddlers who turn their special attention to this branch of the trade have had regular art instruction in the Schools of Design.'

Class LXIII.

RAILWAY APPARATUS.

It can scarcely be denied that the welfare of the country is due, in a great measure, to the extensive means of communication which exist between all parts of the kingdom, and amongst these, railways occupy the most prominent position. In the present age, when time represents money, the possession of rapid means of transport has become an absolute necessity, and England may fairly claim the honour of having inaugurated the present railway system, which has, comparatively speaking, overcome both time and distance.

The manufacture of railway apparatus is carried on in several parts of the country; rails, chairs, &c. being chiefly produced in the iron districts, and steel rails at Sheffield.

Locomotives are largely made at Newcastle, Manchester, Leeds, Glasgow, and other towns, and also at the private works of some of the principal railway companies. There is also an extensive manufacture of passenger-carriages, goods-waggons, and other descriptions of rolling stock, at Birmingham.

There are no general statistics of the production of railway apparatus in the United Kingdom, many of them being included with the hardware trades of the country. In a volume on the resources of the Tyne, Wear, and Tees district, published in 1864, it was stated that since the commencement of the manufacture of locomotives, about 2,400 had been turned out by the manufacturers of Newcastle alone, and upwards of 900 of them had been sent abroad.

Taking an average cost of 2,000*l.*, the gross value of the exported locomotives would amount to 1,800,000*l.* To this must be added the value of those manufactured for use in Great Britain and Ireland, at a cost of 1,500*l.*, making 2,700,000*l.*: giving a total of 4,500,000*l.* sterling. Mr. Timmins, in a paper on the manufacture of rolling-stock at Birmingham, states that the building of railway carriages, waggons, &c. commenced at that town as far back as the year 1838, and from the central position of Birmingham, it has since become the seat of a very large trade. Some idea of the importance of this industry may be gathered from the fact that more than thirteen thousand miles of railway are at work in the kingdom, employing about 18,000 passenger-carriages, and 233,000 waggons, &c. Mr. Timmins estimates the value of the rolling-stock of the country at about 17,000,000*l.*, and upon this sum the annual depreciations amount to about 1,250,000*l.* The number of locomotives employed on the railways of the country during 1865 was 7,414.

In addition, however, to supplying the materials for working the home railways, large quantities are produced for exportation. In the year 1865, the following principal articles of British manufacture connected with this class, were exported from the United Kingdom:

	Quantities		Value
	No.	£	
Carriages, Railway:			
For passengers	1,261	177,000	
Waggons, trucks, &c.	580	22,000	
Iron, Railroad:	Tons		
Rails and tie rods	330,588	2,627,000	
Chairs and sleepers	76,098	393,000	
Wheels and axles	4,872	118,000	
Other kinds	23,000	412,000	
Machinery: Steam Engines and parts thereof:			
Locomotives	—	945,000	

The general progress of railways in the United Kingdom during the past eleven years, may be gathered from the following statistics:—

	In 1855	In 1865
Length of lines open	Miles 8,280	Miles 13,289
Total capital paid up, shares, loans, &c.	£297,584,000	£455,478,000
No. of passengers conveyed	118,595,000	251,960,000
No. of passengers per mile	14,323	18,960
Total traffic receipts	21,507,000	35,731,000
„ working expenses	10,299,000	17,149,000
„ net receipts	11,208,000	18,582,000

Amongst the most recent improvements may be mentioned the employment of steel for rails, tyres, &c., and the invention of the central rail apparatus for working on inclined planes.

Considerable improvements have also been made in locomotives. Mr. Humber in his recent work on Modern Engineering, enumerates the following:—Adaptation of the locomotive to consume coal instead of coke, and to consume its own smoke. The heating of the feed water by the waste steam. Balancing the reciprocating and revolving parts of the engine, whereby the wear and tear of road and engine are considerably reduced, and the safe maintenance of high speeds rendered practicable; and superheating the steam on its way to the cylinders so as to maintain its normal heat, and reduce the loss of power caused by condensation.

Class LXIV.

TELEGRAPHIC APPARATUS AND PROCESSES.

It was stated by the jury on Class 13 at the London Exhibition in 1862, that since the Exhibition of 1851 there had not been any great discoveries in electrical science, nor any important practical application of principles. On the other hand, a great extension of the telegraphic system had taken place, as well as the introduction of submarine cables. The greatest achievement since 1862 has undoubtedly been the successful accomplishment of the submarine cable between the old and the new world. During the year 1866, the third attempt to establish a telegraphic communication between Ireland and Newfoundland, a distance of 1,670 nautical miles, was crowned with success; for not only was a new submarine cable laid, but the broken cable of the previous year was recovered from the depths of the ocean, and continued to the shores of the new world; thus forming a double line of communication. The greatest depth of water encountered was 2,400 fathoms, or less than $2\frac{1}{2}$ nautical miles. The first cable laid was in the year 1858, which was completed and worked for about three weeks, when it suddenly failed. The second cable, partly laid in 1865, broke away in mid-ocean. The cable of 1858 was much lighter in make than that of the subsequent cables, possessing only a breaking strain of 3 tons 5 cwt., or equal to 4·85

times its weight in water per knot; whereas that of the 1865 cable was 7 tons 15 cwt., and that of the 1866 cable 8 tons 2 cwt., or equal to eleven times their own weight in water per knot. The speed of working through the new cable of 1866, as stated by the Atlantic Telegraph Company, with the present improved instruments, is not less than eight words per minute.

According to a return published by the Board of Trade, there were (exclusive of railway and private lines) 16,953 miles of telegraphs in the United Kingdom in the year 1865, using 80,123 miles of wires, and about 8,000 instruments. The increase of private telegraphs in the metropolis and other large towns has been very considerable during the past few years. Great improvements have also been made in all telegraphic apparatus.

Class LXV.

CIVIL ENGINEERING, PUBLIC WORKS, AND ARCHITECTURE.

The progress that has been made in the United Kingdom in the three branches of civil engineering, public works, and architecture since the last Paris Exhibition is so great that it is not easy in a few lines to give any adequate idea of its magnitude. The rapid extension of railway communication, leading, as it does, to increased trade, and to an augmentation in the number of persons who travel about the country, has been one of the chief causes of progress.

Many important engineering works in all parts of the country might be alluded to. In the metropolitan district alone, five new railway bridges and two new passenger bridges have been erected across the Thames, and a third passenger bridge is now in course of construction at Blackfriars. The new passenger bridge at Westminster and many of the other bridges, which are for the most part made of iron, are remarkable for boldness of design and novelty of construction. A remarkable feature in some of the new railway bridges is that they are entirely carried upon piers, which are formed of hollow iron caissons sunk in the river, without the aid of exterior works of any kind. These caissons are afterwards filled with concrete or masonry, the whole forming together gigantic columns which carry the bridge. The importance of combining ornament with utility has, moreover, not been overlooked, and in many instances the iron-work used in the superstructures displays a considerable amount of taste, and marks a very decided advance in the art of constructing iron bridges. Three other important works, viz.: the Underground Railway, the Thames Embankment, and the Main Drainage system, may also be noticed as evidences of progress. The Underground Railway is

for the most part constructed below the main thoroughfares of the city, and when completed will form the inner circle of railway communication in the Metropolis. The portion that is already open for traffic between the east and west end of the town has exceeded all expectations, both as respects utility to the public and profit to the company. The Thames Embankment, which is now in an advanced state on the north side of the river, will form a noble thoroughfare from Westminster to the city; and the Main Drainage system, when fully complete will, it is hoped, restore purity to the water of the Thames. The extension of docks and harbours is constantly going on, and large sums are annually voted by Parliament for the construction of harbours of refuge and breakwaters; amongst those completed or in course of construction may be mentioned the works at Portland, Dover, and Holyhead. The total number of lighthouses on the coasts of the United Kingdom (exclusive of private harbour lights) is 212, besides 42 floating light vessels.

As regards architecture, a very great improvement has taken place in public buildings of all kinds, and the new public edifices of London will bear comparison with those in any other part of the world. The new railway stations in the Metropolis display a vast amount of engineering talent; whilst the spacious hotels that have been erected in connection with them reflect great credit upon the architectural profession. The new Government offices at Whitehall, the new churches, banks, insurance offices, club houses, mansions, concert-rooms, and model lodging-houses built during the last ten years, may also be noticed as evidences of progress. These edifices, which far surpass the older class of buildings as to size, are also remarkable as showing a greater appreciation of the principles of art, both as respects their general outline and methods of decoration. The introduction of coloured marbles and terra-cotta for purposes of ornamentation has in many instances been most successfully employed. The most notable example of the use of terra-cotta is to be seen in the new museum buildings now in course of erection at South Kensington, and which, when completed, will form one of the chief ornaments of the Metropolis.

Intimately connected with the works in this class, may be mentioned the recent establishment of the Metropolitan and Local Boards of Works and of Health, whose business it is to watch over the general and sanitary condition of the various districts committed to their charge; the steps taken to abate the smoke nuisance, the improvements in the public parks and gardens, as well as many other minor provisions for the welfare of the people.

The manufacture of locks, which are exhibited in this class, is a trade of great importance, and is principally carried on at Wolverhampton and other towns in South Staffordshire.

The following extracts from a report of Mr. J. C. Tiddesley to the British Association in 1865, afford a very complete view of the principal branches of the lock-making trade in the United Kingdom:—

Localities of Production, and Description of Locks made	Number of Employers	Approximate Number of Hands	Average Weekly Earnings	
			s.	s.
Wolverhampton:				
Best till and cabinet .	20	400	25	40
Levered rim and mortice, and fine plate	50	800	25	40
Willenhall (including Short Heath, &c.):				
Warded rim, dead mortice, drawback, pad, and till . . .	275	3,060	18	30
Walsall (including Bloxwich):				
Iron pad and cabinet .	35	400	18	30
Wednesfield:				
Iron cabinet and keys	50	200	15	25
Brewood:				
Fine plate . . .	30	150	18	28
Total . . .	460	4,950		

‘The total weekly production of locks in the district is estimated as follows:—pad, 24,000 dozen; cabinet, till, and chest, 3,000 dozen; rim, dead mortice, and drawback, 3,000 dozen; fine plate, 1,000 dozen; and secure levered locks and other descriptions, 500 dozen; being an aggregate production of 31,500 dozens of locks per week.’

‘Perhaps no extensive branch of local industry has taken less advantage of the recent progress of mechanical science than the lock-trade. In most cases they are constructed now in precisely the same manner as they were twenty years ago. To the fact of the trade being so much in the hands of small capitalists, must be mainly attributed the lack of that enterprise and progression which have characterised other departments of local industry. The recent spread of the lock-trade to Lancashire, London, and other districts will, however, doubtless produce a change in the mode of manufacture here.’ ‘The condition of the artisans engaged in this branch of industry has much improved of late years, but there is still room for amendment.’

As respects the development of art in the lock-trade, there is also room for great improvement both in design and ornamentation, without detracting from the useful qualities of these important articles. In connection with the manufacture of the superior kinds of locks, the articles made by Messrs. Chubb & Hobbs are too well-known to require any description.

As regards building materials produced in the United Kingdom, in addition to stones, slates, lime, &c., vast quantities of bricks and tiles are annually made in various of the country. Timber for building purposes is chiefly imported from North America and the Baltic. The foreign trade in the leading

descriptions of building materials in the year 1865 was as follows:—

Imports.

	Quantities	Value
		£
Marble, rough . . . tons	9,994	74,085
„ sawn, &c. . . cwt.	40,572	29,043
Wood and timber not sawn or split, includ- ing teak . . . loads	1,685,000	5,570,000
Ditto, deals, battens, &c. } sawn or split . . . „	2,136,000	6,559,000
Ditto, lathwood . . . „	105,000	206,000

Exports (British Produce).

	Quantities	Value
		£
Bricks mille	33,221	86,245
Cement cwt.	2,257,000	285,898
Stones:		
Slate, by tale . . . mille	7,134	49,664
„ by weight . . . tons	2,544	11,061
Others of all sorts . value		91,016
Chalk and lime . . . tons	14,425	8,683
Tiles, roofing and paving mille	1,167	8,347
„ drainpipes, &c. . No.	454,600	27,066

Class LXVI.

NAVIGATION AND LIFE BOATS.

The revolution in the construction of vessels of war, during the past ten or fifteen years, is so familiar to the world, that a reference to it in this place is not necessary; it may be mentioned, however, that a large trade in the manufacture of armour plates has sprung up in the country, in consequence of the new method of building ships of war.

The following table shows the number of armour-clad vessels, belonging to the Royal Navy, afloat and building, according to a return made to Parliament in 1866:—

	No.	Tonnage	Guns
	Afloat		
Iron-plated Ships:			
Wholly armour-clad.	13	49,782	219
Partially „	17	59,485	258
Floating Batteries:			
Wholly armour-clad.	4	7,367	62
	Building		
Iron-plated Ships:			
Wholly armour-clad.	2	9,732	12
Partially „	2	8,223	22

One ship on Capt. Coles' cupola plan is included with the list of ships afloat, and two on the same principle are building, the three vessels are wholly armour-clad.

Leaving aside, however, the consideration of vessels of war for purposes of defence and for the protection of commerce, a country that employs annually nearly 50 millions of tons of shipping in its home and foreign trades, must be deeply concerned in the trade of shipbuilding. The chief seats of the shipbuilding trade are on the Thames, Humber, Tyne, Wear, Tees, Severn, Mersey, and Clyde; and at Dundee, Belfast, and many other ports of the kingdom.

The tonnage of merchant vessels belonging to the United Kingdom and Islands in the British Season the 31st December, 1865, was:—

	Sailing vessels	Total tonnage
	Steam „	4,937,000
		824,000
Total		5,761,000

Some idea of the importance of shipbuilding as an industry may be gathered from the number of new vessels built annually in the country. The following table shows the number of vessels built in the United Kingdom and registered during the last three years:—

Years	Sailing Vessels		Steam Vessel	
	Vessels	Tons	Vessels	Tons
1863. .	883	255,000	280	110,000
1864. .	873	272,000	376	161,000
1865. .	922	236,000	382	180,000

Of the total number of vessels built in the year 1865, 844 vessels of 153,000 tons were constructed of timber; and 460 vessels of 262,000 tons, of iron.

The iron used in the construction of iron vessels is produced in the country, but the timber employed in wooden shipbuilding is chiefly imported from abroad. Large quantities of hemp, coir, &c. for rope and rigging purposes are also imported, a notice of which will be found under Class 55.

There are no recent returns of the number of persons employed in shipbuilding &c. in the United Kingdom. According to the census of 1861, the total number of persons engaged in ship, boat, barge, mast and sail making, &c. was:—

Divisions	Males	Females	Total
In England and Wales	43,704	75	43,779
Scotland	9,148	6	9,154
Ireland	2,220	9	2,229
Total	55,072	90	55,162

The following table of the average rates of wages paid to operatives in the shipbuilding trade is compiled from returns furnished to the Board of Trade by the respective Chambers of Commerce in the year 1866:—

Description of Occupation	Locality	Rates of Wages	
		per Week	s.
Shipwrights	At Hull . . .	33	
	Bristol . . .	30	
	Glasgow . . .	30	
	Dundee . . .	24 to 26	
	Belfast . . .	33	
Shipsmiths	Hull . . .	27	33
	Bristol . . .	28	
	Glasgow . . .	20	32
	Dundee . . .	24	30
	Belfast . . .	26	
Strikers or helpers	Hull . . .	15	18
	Bristol . . .	18	
	Glasgow . . .	14	18
	Dundee . . .	16	
	Belfast . . .	13	
Sawyers	Hull . . .	27	33
	Bristol . . .	24	
	Dundee . . .	24	
	Belfast . . .	22	
	Hull . . .	26	28
Joiners	Bristol . . .	30	
	Glasgow . . .	24	29
	Dundee . . .	23	
	Belfast . . .	30	
	Hull . . .	33	
Ship carpenters	Bristol . . .	30	
	Dundee . . .	24	26
	Hull . . .	42	63
	Bristol . . .	42	
	Dundee . . .	30	45
Foremen	Belfast . . .	39	
	Hull . . .	5	10/6
	Glasgow . . .	8	12
	Dundee . . .	6	12
	Belfast . . .	5	10
Apprentices	Hull . . .	18	21
	Bristol . . .	16	
	Glasgow . . .	12	16
	Dundee . . .	13	15
	Bristol . . .	36	
Platers and boiler makers	Glasgow . . .	28	30
	Dundee . . .	27	
	Glasgow . . .	24	29
	Dundee . . .	28	
	Glasgow . . .	26	
Angle-iron smiths	Dundee . . .	23	
	Bristol . . .	18	
	Glasgow . . .	16	
	Dundee . . .	15	
	Bristol . . .	18	
Rivettters	Glasgow . . .	26	
	Dundee . . .	23	
	Bristol . . .	18	
	Glasgow . . .	16	
	Dundee . . .	15	
Holders-up	Bristol . . .	18	
	Glasgow . . .	16	
	Dundee . . .	15	
	Bristol . . .	18	
	Glasgow . . .	16	

In noticing the progress that has been made in recent years in shipbuilding in this country, it would hardly be fair to omit to state that, in addition to the construction of the new armour-clad fleet, the Government has effected the conversion of nearly the whole of the sailing ships belonging to the Royal navy into screw steam vessels, thus providing the country with a steam navy of great power.

In general construction, the wave line principle, introduced by Mr. Scott Russell, has been widely adopted by shipbuilders, and owing to the general employment of iron, ships are now

built much longer and with finer lines, thus adding to their sailing or steaming qualities, to their carrying power, and consequently to greater commercial results. Amongst the most recent inventions and improvements, twin screw ships, the cigar ship, the use of steel in place of iron sheets for the outer skin of vessels, and the new method of hydraulic propulsion may be mentioned. H.M.S. 'Waterwitch,' which is fitted with the new mode of propulsion, has lately made some successful experimental trials; the machinery consists of a large turbine wheel, called the 'Ruthven propeller,' which draws the water in through the bottom of the vessel and ejects it through an aperture on each side of the ship, near the water line.

As regards signals for use at sea, an International Commission was recently held in Paris under the auspices of M. le Marquis de Chasseloup Laubat, the French Minister of Marine, and under the presidency of Admiral la Roncière le Noury. Mr. W. F. Larkins of the Board of Trade, and M. Sallandrouze de Lamornaix of the French Imperial Navy, were charged by the Commission with the revision and correction of the Signal Book. The 'International Commercial Code of Signals' has since been introduced for use on board ships of war and merchant vessels of all countries, for exchanging communications at sea or with shore stations and semaphores.

The code differs from other codes hitherto in use in having the code flags lettered B, C, D, &c. instead of numbered 1, 2, 3, &c.

The advantage of lettering is that 18 distinct signs are obtained, which (taking 2 together, 3 together, and 4 together,) give 78,642 separate combinations for making signals, each being complete in itself, and no signal being composed of more than four flags in the hoist.

Throughout the code, the principle is maintained that the *form* of the *hoist* shall denote the nature of the signal, whether the hoist be of 2, 3, or 4 flags. For instance, a signal made with two of the code flags should always be attended to, all 2 flag signals being the most important.

Again, in hoists of 4 flags, if the flag B (the burgee) is uppermost, the signal will always be geographical.

If any of the 13 square flags of the code are uppermost in a hoist of 4 flags, the signal will always be one indicating a ship's name.

A code list of ships is published as an annex to the signal book, giving to each vessel her name, tonnage, and horse power (if a steamer). The code is sufficiently comprehensive to admit of the appropriation of upwards of 40,000 distinct signals for ship's names exclusively.

The Governments of France and Great Britain have (as was done in the case of steamers' lights some years ago) addressed a joint note to the governments of the principal maritime states, recommending the universal adoption of the commercial code, with the view of establishing

a uniform international system of signalling at sea.

The Government of France was the first to adopt this code, to the exclusion of all others, on board French vessels, and at all semaphore stations, and the Governments of Spain, Portugal, Italy, Holland, Belgium, and Greece, have already signified their intention of following the example of France.

There is a further novelty in the commercial code which should be noticed. It provides for making distant signals by a code to be used when it is found impossible to make out the *colours* of the flags. This is managed by the use of 1 or 2 black balls to be hoisted in conjunction with any two of the code pennants or flags; and these signals can be worked, in common with the semaphores already existing on the coasts of France, by a simple adaptation of the distant signal code for the purpose as explained in the signal book.

The commercial code is printed and published by Mr. W. Mitchell, of 54 Gracechurch Street, London; and by Messrs. Galignani, in Paris.

A most important class of objects exhibited in this section of the Exhibition is that of life boats and apparatus for saving life at sea.

In a country possessing so large a coasting and foreign trade, in addition to extensive fisheries on all parts of the coast, the provision of ample means of affording succour to vessels in distress is a matter of the deepest import. A mere glance at the annual wreck chart for the United Kingdom will suffice to show what an amount of work there is for life boats to accomplish. The total number of ships lost or damaged in 1865 was 2,012; and the total number of lives lost, 698. Of this number, 275 perished in vessels that foundered; 53 on board vessels in collisions; 335 in vessels stranded or cast ashore; and 35 from various other causes. When it is remembered that this loss of life occurred at a time when our life boat system was in its

greatest state of efficiency, it is clear that much yet remains to be done in providing for the rescue of our fellow creatures from the untimely death of a watery grave.

The maintenance of life boats on the shores of the United Kingdom is under the charge of the Royal National Life Boat Institution, which is supported by voluntary contributions. During the past ten years great improvements have been made in the construction of life boats, and the Society has placed many additional boats on dangerous parts of the coast, hitherto entirely devoid of such means of rendering assistance to vessels in distress. The total number of boats belonging to the Institution (November 1866) on various parts of the coasts of the United Kingdom amounted to 172, 125 of which were in England and Wales, 19 in Scotland, and 28 in Ireland. There were also about 20 other life boats in different parts of the kingdom provided for by local means. In addition to the life boats, the Board of Trade supports 249 life saving rocket apparatus stations, which are worked by the coastguard. Models of the improved life boat, and also of the rocket and other apparatus for saving life at sea, will be found exhibited in this class.

The number of lives saved in 1865 was, by life boats belonging to the Institution, 532; by shore boats, 182; and by rocket apparatus, 180.

The expense of establishing a life boat station is 620*l*. Its cost is made up as follows:—

Life boat and her equipment, including life belts for the crew and transporting carriage for the life boat	£ 420
Boat house (average cost)	200
Total	£620

The average annual expense of maintaining a life boat station is 50*l*.

GROUP VII.

(CLASSES LXVII.-LXXIII.)

FOOD (FRESH OR PRESERVED) IN VARIOUS STATES OF PRESERVATION.

Class LXVII.

CEREALS AND OTHER EATABLE FARINACEOUS PRODUCTS, AND THE PRODUCTS DERIVED FROM THEM.

THE objects exhibited in this class possess a great amount of interest, being intimately connected with the capabilities of the country to supply one of the staple articles of the food required by its population; and although the production of cereal crops in the United Kingdom is insufficient to supply the wants of the population, a large area of the country is devoted to their cultivation. Until the year 1866, no complete returns were made of the acreage of the entire kingdom under cultivation. The following table exhibits the area under each description of corn crop in that year, in the several divisions of the United Kingdom:—

	Acreage under Crop (in Statute Acres)		
	In England	In Wales	In Scotland
Wheat .	3,161,431	113,862	110,101
Barley .	1,877,387	146,323	213,619
Oats .	1,503,990	251,893	1,004,040
Rye .	50,570	2,452	7,055
Beans .	492,586	3,534	28,537
Peas .	314,206	3,010	3,188
Total .	7,400,170	521,074	1,366,540

	Acreage under Crop (in Statute Acres)			
	In Ireland	In Isle of Man	In Jersey	In Guernsey, &c.
Wheat .	300,474	8,075	2,702	990
Barley .	152,777	7,736	111	532
Oats .	1,697,048	11,010	288	428
Rye .	7,753	9	13	27
Beans .	12,175	320	15	43
Peas .	2,606	116	13	21
Total .	2,173,433	27,266	3,142	2,041

There are no returns of the quantities of the several kinds of grain produced in the country; but, as regards wheat, it is estimated to amount

to about 27 bushels per acre in England and Wales and Scotland, and to 25 bushels in Ireland. This would give an estimated produce of about 12,364,000 quarters for the United Kingdom, excluding the Isle of Man and Channel Islands.

The following table shows the proportion of corn crops to the total area of the country under crops and pastures &c.:—

Divisions	Total Area under all kinds of Crops, Bare, Fallow and Grass	Per Centage of Total Area under Corn Crops
England	Acres 22,262,000	33·3
Wales	2,284,000	22·8
Scotland	4,158,000	32·9
Isle of Man . . .	83,000	32·9
Channel Islands:		
Jersey	20,000	15·4
Guernsey	12,000	17·0
Ireland	*15,549,000	14·0

* This acreage includes hill pastures, which are not taken in in the other returns, and consequently makes the percentage under corn less than it would be were it taken upon the same basis as in the other divisions of the kingdom.

The chief corn-growing districts in England are situated in the eastern and south-eastern parts of the country; the midland and western counties also produce corn, but a large extent of their area is under grass. In Scotland the same division exists, corn being grown principally in the eastern counties, and grass in the south and south-western. In Ireland the corn-producing districts are situated in the northern and southern portions of the island.

The following extracts from Mr. Caird's work on English agriculture afford a complete view of the changes which farming operations have undergone during the present century. On a comparison of the statistics collected by him in 1850-1 with similar information obtained by Mr. A. Young, in 26 counties in England in 1770, the following progress was observable:—

	1770	1850
	<i>s. d.</i>	<i>s. d.</i>
Rent of cultivated land . per acre	13 4	26 10
	Bushels	Bushels
Produce of wheat	23 0	26½
	<i>s. d.</i>	<i>s. d.</i>
Labourers' wages average, per week	7 3	9 7
Cottage rents	0 8	1 5
Price of bread . . . per lb.	0 1½	0 1½
„ meat	0 3½	0 5
„ butter	0 6	1 0

‘It thus appears that, in a period of 80 years, the average rent of arable land has risen 100 per cent.; the average produce of wheat per acre has increased 14 per cent.; the labourer's wages 34 per cent., and his cottage rent 100 per cent.; while the price of bread, the great staple food of the English labourer, is about the same as it was in 1770. The price of butter has increased 100 per cent.; meat about 70 per cent; and wool upwards of 100 per cent.’ Since the year 1850, the value of butter, meat, and wool has considerably further risen in price.

‘The increase of 14 per cent. in the average yield of wheat per acre does not indicate the total increased produce. The extent of land in cultivation in 1770 was, without doubt, much less than it is now; and the produce, given then, was the average of a higher quality of land, the best having of course been earliest taken into cultivation. The increase of acreable corn produce has therefore been obtained by better farming, notwithstanding the contrary influence arising from the employment of inferior soils. The increased breadth now under wheat, with the higher average produce, bear, however, no proportion to the increase of rent in the same period; and the price of wheat now is much the same as it was then. We must therefore look to the returns from stock to explain this discrepancy.

‘While wheat has not increased in price, meat, butter, and wool have nearly doubled in value. The quantity produced has also greatly increased, the same land now carrying larger cows, cattle which arrive at earlier maturity, and of greater size, and sheep of better weight and quality, and yielding more wool. On dairy farms, and on such as are adapted for the rearing of stock, especially of sheep stock, the value of the annual produce has kept pace with the rent. With the corn farmers the case is very different. In former times the strong clay lands were looked upon as the true wheat soils of the country. They paid the highest rent, the heaviest tithe, and employed the greatest number of labourers. But modern improvements have entirely changed their position. The extension of green crops and the feeding of stock have so raised the productive quality of the light lands that they now produce corn at less cost than the clays, with the further important advantage that the stock maintained on them yields a large profit besides.’

The total area returned as under green crops in the United Kingdom in 1866 (the first complete returns that have been collected) was 5,055,220 acres, of which 2,750,000 acres were in England; 139,265 in Wales; 663,257 in Scotland; 1,482,091 in Ireland; 12,208 in the Isle of Man; 5,253 in Jersey; and 2,938 in Guernsey.

The average prices of British wheat, barley, and oats per imperial quarter, during the five years 1861–65 were:—

	Wheat	Barley	Oats
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1861	55 4	36 1	23 9
1862	55 5	35 1	22 7
1863	44 9	33 11	21 2
1864	40 2	29 11	20 1
1865	41 10	29 9	21 10

It has already been stated that the home production of corn in the United Kingdom is inadequate to the wants of the population, and vast quantities are therefore imported. During the twelve years from 1854 to 1865, the average annual value of corn imported into the kingdom amounted to no less than 24,000,000*l.* sterling. The quantities of the principal descriptions of corn imported in 1865, and the sources of supply, are indicated in the following table:—

Countries whence imported	Quantities entered for Consumption Cwts.
Wheat:	
Russia	8,160,000
Denmark	647,000
Prussia	5,426,000
France	2,266,000
British North America	307,000
United States	1,183,000
Other countries	2,946,000
Total	20,935,000
Wheat Flour:	
France	3,058,000
British North America	181,000
United States	262,000
Other countries	382,000
Total	3,883,000
Barley:	
Denmark	1,550,000
Prussia	770,000
Hanse Towns	400,000
France	1,583,000
Turkey Proper	2,087,000
Other countries	1,428,000
Total	7,818,000
Oats:	
Russia	1,963,000
Sweden	3,090,000
Denmark	1,071,000
Prussia	65,000
Holland	726,000
Other countries	796,000
Total	7,711,000

Countries whence imported	Quantities entered for Consumption Cwts.
Maize :	
Russia	1,194,000
Wallachia and Moldavia	545,000
Turkey	3,178,000
United States	1,771,000
Other countries	399,000
Total	7,087,000

The countries named in the above table, with the addition of Egypt, which for many years furnished large quantities of wheat, barley, and maize, have been the chief sources of supply for the last fifteen years. Owing to the late civil war in the United States, the quantities of grain received from that country in 1865 were considerably below the ordinary importations. Corn and grain is liable to an import duty of 3d. per cwt., and flour to 4½d. per cwt.

Large quantities of rice, sago, tapioca, semolina, macaroni and vermicelli, which are not produced in the country, are also imported. In the year 1865 the following importations were made :—

Articles	Quantities	Value
		£
Rice, rough in the husk . qrs.	6,478	15,310
„ not in the husk . cwts.	1,938,816	1,330,941
Sago	148,582	121,285
Tapioca	22,363	37,025
Semolina	2,453	2,773
Macaroni and vermicelli „	7,486	18,012
Total		1,525,346

The total number of persons engaged in agriculture, i.e. in the cultivation of fields and pastures, in each division of the United Kingdom in the year 1861 was :—

Divisions	Males	Females	Total
In England and Wales	1,457,075	376,577	1,833,652
Scotland	215,716	120,773	336,489
Ireland	850,121	81,714	931,835
Total	2,522,912	579,064	3,101,976

The condition of the agricultural labourer in all parts of the country has long been the subject of consideration. As an employment, agriculture affords less remuneration to the workman than any other occupation. The rates of wages vary considerably in all parts of the country; but in those districts in which even the highest wages are paid, the condition of the labourer is not at all satisfactory.

According to returns laid before Parliament in the year 1861, the following rates were paid to agricultural labourers in the three divisions of the country :—

Highest and lowest Rates of average Weekly Wages, without Lodging or Food.

Divisions and Districts	Males		Females		Children under 16.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
England :	10 0	to 13 6	3 6	to 6 0	2 6	to 6 0
S. Eastern	10 0	13 0	3 6	5 0	2 0	8 0
S. Midland	10 0	13 0	3 6	5 0	1 6	8 0
Eastern	8 0	10 0	3 0	5 0	1 6	7 0
S. Western	9 0	12 0	3 0	5 0	2 0	6 0
W. Midland	12 0	15 0	4 0	6 0	1 6	8 0
N. Midland	10 0	15 0	3 6	11 0	2 0	6 0
N. Western	12 0	16 6	4 2	8 0	3 0	7 6
Northern	10 0	13 0	2 6	6 0	1 6	9 0
Welsh	8 0	15 0	3 0	6 0	3 0	9 0
Wales	10 0	16 0	4 0	8 0	2 0	7 0
Scotland (about)	5 7	10 2	2 9	5 0	1 7	4 0
Ireland (about)						

Weekly earnings by task-work ranged from 2s. to 5s. in excess of the above rates.

Much progress has been made in agricultural science in the United Kingdom of late years, and more especially in England and Scotland. The improved methods of farming introduced, including a better system of rotation in crops, a vast extension of drainage and of the use of artificial manures, as well as of the employment of machinery for many farming operations, have tended to place the agricultural industry of the country in a far better position than it formerly occupied. The increase in the rearing of live stock on farms has also been attended with very profitable results; and the recent experiments of steam cultivation on clay lands are reported to have been highly successful. A notice of agricultural machinery, which is now extensively employed throughout the country, will be found under Class 48. The annual exhibitions of the Royal Agricultural Society, and the several international and other exhibitions that have taken place since 1851, have been the means of increasing the use of the most improved machinery; while the researches of many eminent chemists and scientific men have led to a better understanding of the nature of soils, and consequently have largely contributed to the welfare of the agricultural industry of the kingdom.

Class LXVIII.

BREAD AND PASTRY.

Within the last few years bread-making by machinery has rapidly increased. Among the bread-making machines exhibited at the London Exhibition of 1862, those for kneading bread were well represented. These machines were stated to effect a saving of three per cent. in flour alone. A travelling oven for biscuit-baking was also highly commended by the jury on Class 7, who expressed the hope that, in the interests of health and cleanliness, as well as in that of the welfare of the operatives

engaged in the business, the general adoption of machinery for bread-making would be accepted by the trade.

The annual consumption of wheat and wheat-flour for purposes of food in the United Kingdom is estimated to be about 20 million quarters, or about $5\frac{1}{2}$ bushels per head.

The number of bakers and confectioners in each division of the United Kingdom in 1861 was :—

	Bakers	Confectioners
In England and Wales . . .	54,140	14,526
Scotland	10,894	1,924
Ireland	9,293	1,547
Total	74,327	17,997

There are no official returns of the price of bread. The average price of wheat, per quarter, in England and Wales during the five years 1861-65 was :—

	s.	d.
1861	55	4
1862	55	5
1863	44	9
1864	40	2
1865	41	10

Class LXIX.

FATTY SUBSTANCES USED AS FOOD : MILK AND EGGS.

Edible oils are not produced in the United Kingdom, and as respects the other articles included in this class, the home production is not sufficient to meet the wants of the population. Large quantities of butter, cheese, and eggs are annually imported into the country. The statistics relating to the foreign trade in the articles comprised in this class are given below :—

Quantities and Value of Articles Imported for Consumption.

Years	Olive Oil	Butter	Cheese	Eggs
	Quantities			
	Tons	Cwts.	Cwts.	Gt. hundreds
1861	15,981	987,000	698,000	1,694,000
1862	20,077	1,024,000	695,000	1,936,000
1863	18,949	957,000	747,000	2,224,000
1864	15,726	1,038,000	826,000	2,794,000
1865	30,716	1,068,000	842,000	3,033,000
	Value			
	£	£	£	£
1861	908,600	4,874,000	1,618,000	550,000
1862	1,152,800	4,860,000	1,530,000	594,000
1863	1,085,800	4,402,000	1,863,000	673,000
1864	902,200	5,569,000	2,151,000	835,000
1865	1,616,900	5,871,000	2,432,000	928,000

Olive oil is imported principally from Italy and Spain ; butter from Holland, Belgium,

France, Hamburg, and Denmark ; cheese from Holland and the United States ; and eggs from France.

The value of butter and cheese of British make exported during the five years 1861-65 was :—

	Butter	Cheese
	£	£
1861	466,000	130,000
1862	374,000	127,000
1863	472,000	157,000
1864	327,000	147,000
1865	333,000	111,000

Class LXX.

MEAT AND FISH.

Although the consumption of meat in the United Kingdom is very great, there are no means of ascertaining the amount of the annual consumption. Owing to the high price of meat of late years, several schemes for the introduction of preserved meat from South America have been set on foot, but hitherto they have remained without any significant results.

The sea which surrounds the coasts of the British Islands affords a plentiful supply of fish. The chief kinds are cod, turbot, soles, mackerel, whiting, herrings, pilchards, shrimps, oysters, and lobsters. According to the report of a commission lately appointed to enquire into the condition of the British fisheries, it is stated that the supply of fish on the coasts of Great Britain is annually increasing. The decline in the oyster supply during the past three years is attributed to a succession of bad breeding seasons, for which no well-ascertained cause can be assigned.

The Scotch and Irish salmon fisheries are also of considerable importance ; but there are no returns of their annual production ; large quantities of salmon are exported.

The principal branches of the British fishing trade are those of the herring and pilchard fisheries, large quantities of these two descriptions of fish being annually exported, in addition to the vast number that are consumed in the country.

Since the extension of railway communication, the consumption of fish has greatly increased, and most large towns throughout the country are now daily supplied with fresh fish. There are no statistics of the English fisheries, although the herring fishery of Yarmouth and other parts of the coast, as well as the pilchard fishery on the coasts of Devon and Cornwall, afford employment to a large number of boats and fishermen. In addition to these two branches of fishing, the fishing-boats are engaged at other seasons in catching mackerel, turbot, soles, cod, &c. &c. It is estimated that

there are between 800 and 900 trawl-vessels engaged in supplying the London market with fish; and assuming the annual average take to be 90 tons, this would give a total of some 80,000 tons of fish. This is irrespective of the vast quantities of herrings, sprats, shell, and other descriptions of fish which are supplied by other modes of fishing.

The following were the number and tonnage of boats and of men and boys employed in the Scotch, Isle of Man, and Irish fisheries in the year 1864:—

	Fisheries		
	Scotch	Isle of Man	Irish
No. of vessels .	12,703	628	9,300
Tonnage .	92,887	5,635	—
Number of men and boys .	40,934	2,550	40,946

The produce of these fisheries in the same year was:—

		Scotland	Isle of Man
Cod and Ling:			
Taken or purchased	{ cwts. 161,000 barrels 7,900	19,600	
Cured . . .	{ cwts. 107,600 barrels 7,900	138	—
Herrings:			
Caught . . .	barrels 691,000	44,000	
Cured . . .	„ 609,000	34,000	

There are no returns of the produce of the Irish fisheries, which have declined of late years. It is stated that the majority of small fishing-boats in that country belong to farmers who dwell on the coast, and they are only occasionally employed; the fish taken is not sent to market, but disposed of in the immediate neighbourhood of the fishing.

There are no returns of the average prices of meat in the several parts of the country. The average prices of meat at the Metropolitan live meat market during the three years 1863–65 was:—

Per Stone of 8 lbs. (sinking the Offal.)

	1863	1864	1865
Beasts:	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Inferior . . .	3 7½	3 9	3 10
2nd class . . .	4 2	4 4½	4 4½
3rd class (large prime)	4 8	4 9½	4 9½
4th class (Scots) . .	4 11½	5 1	5 2
Sheep:			
Inferior . . .	4 0	4 2½	4 8
2nd class . . .	4 7½	4 9½	5 4
3rd class (long coarse wool)	5 1	5 3	5 11
4th class (South Downs)	5 5½	5 8	6 4½

Although the above prices do not afford any indication of the retail prices of meat, as paid

by the generality of consumers, they represent pretty accurately the wholesale prices of this important article of food. As respects the price of fish, the Commissioners of Fisheries obtained two statements showing the variation in price at a seaport and at an inland town between the years 1856 and 1865, which were as follows:—

At Newcastle-upon-Tyne	1856		1865	
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Turbot . . per stone	2 0	2 6	4 6	6 6
Soles . . . pair	0 9	1 3	1 9	2 0
Cod . . . each	0 9	1 3	2 6	3 0
Codlings . .	0 3	0 9	0 6	1 3
Haddock . .	0 3	0 6	0 6	0 9
Skate . . .	0 6	0 9	2 6	3 0
Whiting . . per stone	0 9	1 0	1 3	1 6
Lobsters . .	15 0	20 0	18 0	25 0

At Manchester	1856		1865	
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Turbot . . per lb.	1 0	1 6	0 8	1 0
Soles . . .	0 3	0 4	0 6	0 8
Cod . . .	0 2	0 4	0 3	0 4
Sparlings . .	—	1 6	1 0	1 6
Haddock . .	0 2	0 4	0 3	0 4
Pilchard . .	—	0 2	0 1½	0 2
Brill . . .	0 4	0 6	0 4	0 5
Ray . . .	—	0 2	—	0 3
Halibut . .	0 4	0 6	—	0 6

The above are retail prices.

The price of cured herrings at Leith, in 1865, ranged from 28s. to 34s. per barrel; and at Greenock, from 26s. to 40s. per barrel.

There are no official returns of the prices of fish sold in the London market.

The quantities and value of foreign fish imported into the United Kingdom in the year 1865, were—

	Quantities	Value
Fish, fresh . . .	Cwts. 118,502	£ 130,570
„ cured or salted .	366,958	384,142
	485,460	514,712

Fresh fish is imported chiefly from Holland and Norway, and cured fish from British North America, France, Holland, Norway, and Iceland.

The exports of British fish in the same year were:—

	Quantities	Value
Herrings . . barrels	352,250	£ 500,233
Cod and ling . cwts.	36,433	40,361
Salmon . . .	4,311	23,388
Pilchards . . hhd.	11,783	38,342
Oysters . . bushels	97,030	63,130
Other kinds . .	—	23,784
		689,238

Herrings are sent principally to Germany, Italy, and Austria; salmon and oysters to France and Belgium; and pilchards to Italy and Austria.

Class LXXI.

VEGETABLES AND FRUIT.

The cultivation of vegetables and fruit has been brought to a great state of perfection in the United Kingdom; and both are largely consumed by all classes of the community. There are no statistics of the annual productions of gardens. The area under cultivation of potatoes, exclusive of gardens, in the United Kingdom in the year 1866 was 1,556,000 acres.

In addition to the home supply, considerable importations of fruits and vegetables are annually made. In the year 1865 the chief imports consisted of—

Apples, raw . . .	bushels	516,000
Grapes . . .	"	58,000
Oranges and lemons . . .	"	1,567,000
Pears, raw . . .	"	41,000
Other raw fruit . . .	"	226,000
Onions . . .	"	529,000
Potatoes . . .	cwts.	807,000

Class LXXII.

CONDIMENTS AND STIMULANTS; SUGAR AND CONFECTIONERY.

The principal articles included in this class which are produced in the United Kingdom, are table salt, vinegar, mustard, sauces, and preserved fruits and jams. The manufacture of table salt is principally located in the counties of Cheshire and Worcester, where it is prepared in very large quantities, although some of the finest salt is manufactured in London from the rougher descriptions produced in the above-named places. English mustard and sauces, besides supplying the home demand, enjoy a high renown in most continental towns, and are also largely used in the colonies. The consumption of some of the articles comprised in this class, which are not produced in the country, is very great. The following table exhibits the quantities of the principal articles of foreign growth retained for consumption in the year 1865:—

Pepper . . .	lbs.	4,713,000
Cocoa . . .	"	3,826,000
Coffee . . .	"	30,511,000
Tea . . .	"	97,834,000
Sugar, raw . . .	cwts.	9,876,000
" refined . . .	"	724,000

Pepper is obtained chiefly from the Dutch East Indies, *via* Singapore; cocoa from the British West Indies and Central America; coffee from Ceylon, India, and Brazil; tea from China and Assam; raw sugar from the British West Indies, Cuba, and Brazil, and refined sugar from Holland, France, and Belgium. Cinnamon, cloves, pimento, &c. are also imported,

but they are not consumed in very large quantities.

The consumption of tea and of raw sugar has greatly increased during the past ten years. In 1856 only 63,000,000 lbs. of tea and 6,813,000 cwts. of raw sugar were imported for consumption. On comparing the quantities similarly imported in 1865, they show an increase of 55 per cent. in tea and 44 in raw sugar. The recent reduction of the tea duty to 6*d.* per lb. has greatly tended to increase the consumption of this article, and has proved a great boon to the poorer classes of the community.

The average annual consumption of tea in 1865 was about $3\frac{1}{4}$ lbs. per head of the population; and of sugar, 39 lbs.

The consumption of cocoa remains almost stationary, whilst that of coffee has slightly declined.

The value of salt, pickles and sauces, vinegar, and confectionery exported from the United Kingdom in the year 1865 amounted to—

	Quantities	Value
		£
Salt, rock and white . tons	579,050	274,631
Pickles and sauces . value	—	328,381
Vinegar . . . gals.	345,123	33,149
Confectionery . . lbs.	2,041,348	85,465

Class LXXIII.

FERMENTED DRINKS.

There are no records of the production of British wines, which are to a great extent made from foreign fruits, such as oranges, raisins, ginger, &c. as well as from home-grown fruits, such as currants, gooseberries, and raspberries. Cider is largely produced in Devonshire, Herefordshire, and other counties in the south-west of England, where in a great measure, it takes the place of beer as a beverage for the working classes. The better descriptions of cider, as well as perry, are occasionally used by the upper classes. Beer is the ordinary beverage of the majority of the population, and is produced in large quantities, not only for home consumption, but also for exportation. The manufacture of spirits is also very extensive. Scotch and Irish whiskey are the most celebrated of English spirits, though less consumed, perhaps, than gin and brandy and rum, which latter spirit is not made in the country. The quantity of malt used by distillers of spirits in the United Kingdom during the three years 1863-65 amounted to—

	Bushels
1862-3 . . .	4,133,000
1863-4 . . .	4,986,000
1864-5 . . .	4,408,000

The number of persons licensed to brew beer in each division of the United Kingdom in the year 1865 was:—

In England and Wales	34,218
Scotland	220
Ireland	90
Total	34,528

The number of distillers of spirits in the same year was:—

In England and Wales	8
Scotland	116
Ireland	25
Total	149

The number of distillers annually becomes smaller, owing to the concentration of the business in the hands of large distillers, who employ all the modern improvements, and who are thus enabled to successfully rival the small producers.

The following table shows the quantities of beer and British spirits, as well as foreign wines and spirits, retained for consumption in the United Kingdom in the year 1865:—

	Gallons
Beer (estimated) . . .	684,000,000
British spirits	21,005,000
Wine, foreign	11,994,000
Foreign spirits	6,732,000

As respects the consumption of the above drinks during the past ten years, there has been an increase in beer, a decrease in British spirits, an increase in foreign spirits, and a large increase in wine. The increased consumption of wine is in a great measure attributable to the reduction of the import duty on that article which was made on the occasion of the negotiation of the Commercial Treaty with France in 1860.

The importations of wine for consumption from the principal countries of production in 1859 and 1865, were:—

Countries whence imported		1859	1865
		Gallons	Gallons
France . {	Red . . .	423,000	1,782,000
	White . . .	272,000	829,000
Portugal {	Red . . .	1,971,000	2,851,000
	White . . .	49,000	38,000
Spain . {	Red . . .	47,000	506,000
	White . . .	2,829,000	4,685,000

The principal descriptions of spirits imported are rum and brandy. The chief sources of supply are exhibited in the following table:—

Imports for Consumption, 1865.

		Gallons
Rum . . {	From British West Indies . .	1,499,000
	„ British Guiana . .	1,870,000
Brandy . {	„ France . .	2,581,000
	„ other parts . .	85,000

The quantities of beer and ale and of British spirits exported from the United Kingdom during the five years 1861-65 are stated below:—

	Beer and Ale	Spirits
	Barrels	Gallons
1861	378,000	4,085,000
1862	465,000	3,752,000
1863	491,000	4,076,000
1864	499,000	4,194,000
1865	562,000	1,987,000

The total value of the above, in the year 1865, amounted to 2,305,000*l*.

GROUP VIII.

(CLASSES LXXIV.-LXXXII.)

LIVE STOCK AND SPECIMENS OF AGRICULTURAL BUILDINGS.

Class LXXIV.

FARM BUILDINGS AND AGRICULTURAL WORKS.

THE position of agriculture in any country possessing a large population must always remain a subject of deep importance. Of late years much greater attention has been paid to the cultivation of the soil than was formerly the case, and owing to the labours of many scientific men, farming is now to a great extent carried on in the United Kingdom on scientific principles. The introduction of steam power for performing many farming operations has also led to a considerable improvement in the methods of farming throughout the country, which have been still further aided by the superior descriptions of implements and machines manufactured in England for agricultural purposes. Great advancement is also manifest in the farm buildings that are now erected, as well as in the utensils and apparatus employed in them.

The manufacture of agricultural machinery and implements forms a very important industry of the country, although there are no returns of the actual number of persons engaged in it. It is made at Lincoln, Bedford, in many parts of Suffolk, at Peterborough, Banbury, and Manchester. The English makers of this class of machinery, in addition to an extensive home trade, have a large foreign trade in their productions; and there can be little doubt that as a class they have considerably profited by the exhibition of their goods at International Exhibitions.

The value of British agricultural implements and machinery exported from the United Kingdom in the year 1865 amounted to—

	£
Agricultural implements, un- enumerated. }	210,300
Agricultural implements com- posed wholly of iron . . . }	13,177
Agricultural machinery (except steam engines) }	282,019

Steam engines for agricultural purposes are not separately specified in the trade accounts, but this branch of the trade is of considerable value.

A statement of the area under cultivation of the principal crops in the United Kingdom in the year 1866 will be found under Class 67, and the number of live stock under Classes 75 to 77.

Class LXXV.

HORSES, ASSES, MULES.

There are no returns of the number of horses in Great Britain, except those of the number of horses and mules charged with and exempt from duty. The following were the numbers taxed and exempted from duty in each division of Great Britain in the year 1864:—

	Horses and mules No.
In England and Wales, taxed	537,639
„ „ exempt from tax	330,584
In Scotland, taxed	55,428
„ „ exempt from tax	147,444
Total for Great Britain	1,071,095
According to the returns for Ireland in 1866	535,000
Total, United Kingdom	1,606,095

There are no records of the number of asses in the kingdom.

The following table gives the number and value of horses imported into and exported from the United Kingdom during the five years 1861-65:—

Years	Imported		Exported (British)	
	Number	Value	Number	Value
1861	1,595	£ 37,693	2,954	237,813
1862	1,978	40,581	4,288	267,956
1863	1,441	39,264	5,204	269,825
1864	1,357	34,319	4,664	230,391
1865	1,332	39,658	4,400	185,367

Only 4 asses, valued at 20*l.*, were imported in the year 1865; and 130 asses and mules, valued at 1,291*l.*, were exported in the same year.

Class LXXVI.

BULLS, BUFFALOS, ETC.

The following is the return of cattle in each division of the United Kingdom, as ascertained in the year 1866:—

Divisions	Cows	Other Cattle	Total
England . . .	1,290,529	2,016,505	3,307,034
Wales . . .	222,546	318,855	541,401
Scotland . . .	370,447	566,954	937,401
Ireland . . .	1,481,446	2,261,486	3,742,932
Isle of Man . .	7,755	10,932	18,687
Channel Islands:			
Jersey . . .	5,815	6,222	12,037
Guernsey . .	3,030	3,946	6,976
Total . . .	3,381,568	5,184,900	8,566,468

In addition to the number of cattle reared in the country for purposes of food, a large number is annually imported from abroad, chiefly from the northern states of Europe. A very considerable increase in the importations will be observed in 1864 and 1865, which was in great part owing to the plague that existed amongst the home stock. The number and value of cattle of all kinds imported into the United Kingdom during the five years 1861–65 are given below:—

	No.	Value
1861 . . .	107,096	£1,558,065
1862 . . .	97,887	1,301,602
1863 . . .	150,898	1,931,814
1864 . . .	231,733	3,208,851
1865 . . .	283,271	4,401,482

The exports of cattle are exceedingly insignificant.

The total number of cattle reported to have been attacked by the cattle disease in Great Britain since the commencement of the epidemic to the 10th November 1866, amounted to 253,730. Of this number, 85,018 were killed, 124,305 died, 33,413 recovered, and 10,994 unaccounted for; 52,415 healthy animals were also slaughtered in the same period to prevent the spread of the disease. The percentage of the estimated ordinary stock of cattle attacked by the disease up to the 10th November 1866 was 5·141.

Class LXXVII.

SHEEP, GOATS.

The total number of sheep in each division of the United Kingdom in the year 1866 was:—

	No.
In England . . .	15,124,000
Wales . . .	1,668,000
Scotland . . .	5,255,000
Ireland . . .	4,270,000
Isle of Man . .	55,954
Channel Islands:	
Jersey . . .	517
Guernsey . .	1,214
Total . . .	26,374,685

In consequence, however, of the period of the year at which the return for England was taken, it is probably short by a large number of lambs. There are no returns of the number of goats in the United Kingdom, they are not kept in large numbers.

A considerable importation of sheep and lambs is annually made into the kingdom, almost exclusively from Europe, and principally from Hamburg, Holland, and Belgium. The importations during the five years 1861–65 are given below:—

	No.	Value
1861 . . .	312,923	£616,020
1862 . . .	299,472	569,315
1863 . . .	430,788	669,573
1864 . . .	496,243	873,905
1865 . . .	914,170	1,787,866

The large increase in 1865 is attributable to the scarcity of meat in the home market owing to the disease in the cattle.

The number of sheep exported is very small, in the year 1865 only 2,477 sheep, valued at 22,134*l.*, were sent out of the country.

Class LXXVIII.

PIGS, RABBITS.

The return of the number of pigs in the United Kingdom is incomplete, inasmuch as pigs kept by cottagers and pigs kept in towns in England, Wales, and Scotland are not included in the return. Exclusive of pigs so maintained, however, the total number in the United Kingdom in 1866 is stated at 3,990,000. Rabbits abound in all parts of the country, but no records exist of the supposed number.

The importations of swine and hogs during the five years 1861–65 were:—

	No.	Value
1861 . . .	30,308	£37,884
1862 . . .	18,162	17,319
1863 . . .	27,137	53,685
1864 . . .	85,362	192,566
1865 . . .	132,943	359,065

A considerable number of rabbits are imported from the Continent, but the customs' returns do not distinguish the number separately. Very few pigs are exported; in 1865 the number was 148, valued at £559.

Class LXXIX.**POULTRY.**

There are no statistics of the number of poultry in the country, but it must be sufficient to supply the wants of the population, as the importations are comparatively of trifling value. Eggs are not included in this class but will be found noticed in Class 69.

The value of poultry, including game and rabbits, imported into the United Kingdom during the five years 1861–65 was :—

	£
1861	74,000
1862	86,000
1863	109,000
1864	131,000
1865	148,000

Class LXXX.**SPORTING DOGS AND WATCH DOGS.**

There are no statistics of the number of dogs in the United Kingdom; for although they are liable to a tax, the evasions of the duty are so numerous as to render the official returns useless for the purpose of showing the number of these animals kept in the country.

Class LXXXI.**USEFUL INSECTS.**

The only insects reared in the United Kingdom which come within the range of this class are bees, which are kept to a considerable extent in many parts of the country. Several improvements in the make of apiaries have been introduced within the past ten years, but as a rule the old straw beehive is the usual form of hive employed for the preservation of bees in this country. The quantities of honey and bees' wax imported into the United Kingdom in the year 1865 were :—

	Cwts.
Honey	4,519
Bees' wax	10,678

There are no returns of the amount of the home production of these articles.

Class LXXXII.**FISH, CRUSTACEA, AND MOLLUSCA.**

The most important apparatus comprised within the limits of this class is that for the artificial rearing of fish, which has been successfully employed in many parts of the country. The apparatus is now, however, so generally known that allusion to it in this place is unnecessary. A notice of the production of the British fisheries will be found under Class 70.

GROUP IX.

(CLASSES LXXXIII.-LXXXVIII.)

TREES, PLANTS, VEGETABLES, AND SPECIMENS OF HORTICULTURAL BUILDINGS, &c.

Class LXXXIII.

HOthouse AND HORTICULTURAL APPARATUS.

SEVERAL improvements have been made within the last few years in the construction of hothouses and conservatories, especially as regards the design of the latter. As respects apparatus, the invention and introduction of the mowing machine for lawns is one of the most important; it will cut grass at all times of the day and year, whereas the scythe can only be used when the dew is on the grass. Many other improvements in gardeners' implements and apparatus have been made during the past ten years, owing to the increased attention that has been paid to the cultivation and ornamentation of gardens, as well as to conservatories and other buildings for the artificial culture of plants, which are now attached to most modern houses of any size.

Class LXXXIV.

FLOWERS AND ORNAMENTAL PLANTS.

In addition to the natural taste of the people for the cultivation of flowers, the numerous horticultural and botanical societies, by means of the establishment of gardens and by frequent public exhibitions of flowers and plants, have been greatly instrumental in fostering this national peculiarity. The flower gardens of the upper and middle classes of society are generally acknowledged to be unsurpassed by those of any other nation of the world; and from the intimate connection of England with all quarters of the globe, her gardens have been enriched by contributions from every clime. Amongst recent introductions, may be mentioned many beautiful and hitherto rare flowers and plants from Japan. The art of ornamental gardening has of late years been extensively developed in England, owing in a great measure to the increased wealth of the middle classes.

Class LXXXV.

VEGETABLES.

Vegetables of all descriptions are largely grown in the United Kingdom, but with the exception of potatoes, there are no returns of the extent of their cultivation.

The area of land under the cultivation of potatoes (exclusive of gardens) in the year 1866 was:—

	Acres
In England and Wales . . .	356,000
Scotland . . .	143,000
Ireland . . .	1,051,000
Isle of Man . . .	4,000
Channel Islands . . .	2,000
Total . . .	1,556,000

Potatoes and onions are also imported in large quantities, chiefly from France and Holland, Belgium and Portugal. In the year 1865, 807,000 cwts. of potatoes, valued at 162,000*l.*, and 529,000 bushels of onions, valued at 121,000*l.*, were imported into the United Kingdom.

Class LXXXVI.

FRUIT TREES.

Fruit-trees of many descriptions, especially apples, pears, and cherries, are extensively cultivated in several parts of the kingdom. In Devonshire, Somerset, and Herefordshire, apples are largely grown for the manufacture of cider. Kentish cherries are also highly celebrated for their good qualities. Many other fruits are grown in private and in what are termed market-gardens, and the annual production is very large, although there are no means of estimating its value. Great attention is paid to the propagation of fruit-trees, and each year witnesses the introduction of several improved descriptions of fruit.

In addition to the home supply, large quantities of common fruits are annually imported

into the country, amongst the principal of which, in 1865, were:—

	Bushels
Apples, raw	516,000
Pears	41,000
Walnuts	143,000
Small nuts	251,000
Chesnuts	72,000
Grapes	58,000

The latter are not grown as an outdoor crop in the United Kingdom, but are largely produced in hothouses.

Raisins, dried; sweet almonds, dates, figs, oranges, and lemons. are not produced in the country, but are imported. In 1865 the quantities of these fruits amounted to:—

	Cwts.
Raisins	368,000
Sweet almonds	32,000
Figs, dried	78,000
Dates	16,000
	Bushels
Oranges and Lemons	1,576,000

Class LXXXVII.

SEEDS AND SAPLINGS OF FOREST TREES.

Although the cultivation of forests in the United Kingdom is comparatively limited in extent, being confined to those belonging to the crown and to a few extensive landed proprietors, the rearing of trees for woods and plantations receives great attention. The parks which surround the country residences of the

landed proprietors are studded with forest-trees of all descriptions, but they are cultivated chiefly with regard to ornamentation. There are few countries, perhaps, in which such a diversified grouping of foliage can be seen as in the woods and plantations of many counties of England.

Class LXXXVIII.

HOTHOUSE PLANTS.

It is impossible, within the limits of these remarks, to point out the several methods of culture of hothouse plants in the United Kingdom; but it is hoped that some of the more recent modes may be represented at the exhibition. For heating purposes, the brick flue is still largely used, although hot water and gas apparatus are also very generally employed. Many improvements in the construction of hothouses have been made of late years, some of the more important of which are due to the late Sir J. Paxton; and the reduction in the price of glass has also given the designers of ornamental structures a much greater latitude in the erection of these buildings. The cultivation of hothouse plants, apart from their growth for purposes of pleasure, is greatly encouraged by the exhibitions which are held by the Horticultural and other societies in the kingdom, at which prizes are awarded for the best specimens of known flowers, as well as for the successful introduction of any novelties in stove-plants.

GROUP X.

(CLASSES LXXXIX.-XCIII.)

ARTICLES EXHIBITED WITH THE SPECIAL OBJECT OF
IMPROVING THE PHYSICAL AND MORAL CONDITION
OF THE PEOPLE.

Class LXXXIX.

APPARATUS AND METHODS USED IN THE
INSTRUCTION OF CHILDREN.

ALTHOUGH not exhibitors at the present Exhibition, there are numerous societies in the United Kingdom supported by private subscriptions, whose object it is to afford to elementary schools, as well as to the public generally, the means of obtaining sound educational works at a very low cost. As regards school buildings, the Department of Science and Art maintains a permanent exhibition of the most approved models for public schools, and of school furniture and apparatus. Great attention has been paid to the education of the blind in England, where they are not only taught to read, but are also instructed in music, and taught several trades. There are many institutions in London and other large towns for the reception of this class of the population, capable of affording support to several hundred persons. It is stated that, in the well-known institution for the indigent blind in Southwark, from twelve to fifteen young persons are annually turned out from the school well instructed in religious and secular knowledge; masters of a trade, as shoe-makers, mat-makers, weavers, brush-makers, or basket-makers, and some of them are able to play on the organ, or other instrument. Similar results are obtained at most of the other institutions.

The total number of blind persons in the United Kingdom at the taking of the census in 1861 was:—

	Persons	
In England and Wales	19,352 or 1 to every 1,037 persons	
Scotland	2,820	1,086
Ireland	6,879	843
Islands in British Seas	197	728
	29,248	994

The exhibition of educational works and maps &c. will of itself be sufficient to show the great amount of interest that is displayed in providing for the moral and social condition of the people.

Class XC.

LIBRARIES AND APPARATUS USED IN THE
INSTRUCTION OF ADULTS—AT HOME,
IN THE WORKSHOP, OR IN SCHOOLS
AND COLLEGES.

The establishment of libraries and reading-rooms for the use of the working-classes, has existed for many years in connection with the Mechanics' and Literary Institutes which are to be found in almost every town and considerable village throughout the country. The establishment of Free Libraries in large towns for the use of all classes, is of later date. Instruction to adults belonging to the humbler classes is given in Working-men's Colleges, and at evening classes held at the Mechanics' and other institutions. The efforts of the promoters of all these institutions have been ably seconded by a large number of publishers in different parts of the country who have had the real welfare of the operative at heart. The publication of cheap educational works, and especially those adapted to self-instruction, is now so extensive that the difficulty that exists is, not that of obtaining, but of selecting from the vast supply offered. The large circulation of cheap periodicals, of reprints of standard works, and particularly of cheap newspapers, must be regarded as an evidence of the improved educational standard of large classes of the community.

Class XCI.

FURNITURE, CLOTHING, AND FOOD FROM
ALL SOURCES, REMARKABLE FOR USEFUL
QUALITIES COMBINED WITH CHEAP-
NESS.

In a country like the United Kingdom, where so large a proportion of the manufactures are produced for the 'million,' it is not easy to specify what particular articles fall within the limit of this class. Owing to their large consumption, and to the employment of machinery

in their manufacture, most of the ordinary articles of furniture, clothing, and food are sold at prices sufficiently low to place them within the reach of all able-bodied, industrious members of the community. The price of most of the articles used by the poorer classes of the population is also kept down by the vast competition that exists to supply them, as from the nature of the trade (being chiefly a ready-money one) large returns are realised, although the articles are sold at a very small profit.

The establishment and rapid increase of co-operative and provident societies, which supply their members, principally of the operative classes, with many articles of food and clothing at cost price, besides giving them a bonus upon their purchases at the stores, deserves a notice in this place.

Class XCII.

SPECIMENS OF THE CLOTHING WORN BY THE PEOPLE OF DIFFERENT COUNTRIES.

A few remarks as to the descriptions of clothing worn by different classes in the United Kingdom, will be found under Class 35.

Class XCIII.

EXAMPLES OF DWELLINGS CHARACTERISED BY CHEAPNESS, COMBINED WITH THE CONDITIONS NECESSARY FOR HEALTH AND COMFORT.

The subject of the improvement of the dwellings of the working classes has long occupied attention in England. Those who

visited the London Exhibition of 1851 will doubtless call to mind the model lodging-houses erected under the direction of the late Prince Consort, in connection with the Exhibition, and which attracted so much attention. Since that date, the consideration of the best means of improving the dwellings of the labouring classes has been warmly taken up by the Society of Arts, as well as by other societies and private individuals, and many large blocks of houses for the use of the operative classes have been erected in various parts of the city; but, although much has already been accomplished, the majority of the poorer classes are condemned to dwell in miserable habitations. Owing to the extension of railways and of public improvements, the demand for operatives' houses in the metropolis is annually increasing. Some relief has been afforded by the conveyance of working men by one or two of the railway companies at low rates from and to the suburbs, and if this boon were conceded by all the railway companies of the metropolis, a very beneficial result might be anticipated. It must, however, be borne in mind that the early hour at which operatives commence their labours precludes their living at any considerable distance from their work. The want of proper accommodation for the working classes is not, unfortunately, confined to the metropolis, but is experienced in most large towns in the country as well as in many agricultural districts, and, in fact, has now assumed such vast proportions that it can only be relieved by undertakings carried out on a very large scale. It is hoped that the objects exhibited in this class may be the means of awaking a still deeper interest in this important work.

STATISTIQUES DE LA GRANDE EXPOSITION DE TOUTES LES NATIONS À LONDRES EN 1851, DE L'EXPOSITION UNIVERSELLE DE PARIS DE 1855, ET DE L'EXPOSITION INTERNATIONALE DE 1862.

PAR WILLIAM MATCHWICK, F.L.S.

GRANDE EXPOSITION DE TOUTES LES NATIONS EN 1851.

L'ÉDIFICE destiné à cette Exposition — dans la construction duquel entrèrent principalement le verre et le fer — fut élevé dans Hyde Park, à Londres, sur un emplacement peu fréquenté par le public, mais parfaitement bien adapté au but qu'on se proposait. Sur le côté méridional du parc s'ouvre un espace de dimensions considérables, parallèle et contigu à la route qui conduit à Kensington et Hammersmith, et qui constitue la grande voie de communication de l'ouest avec la métropole. Cet espace est situé à mi-chemin environ entre les casernes de cavalerie existant à Knightsbridge et la nouvelle entrée du parc appelée Queen's Gate (Porte de la Reine), entrée qui se trouve à quelques deux ou trois cents yards à l'est de la vieille barrière de Kensington. Une vingtaine d'acres — environ huit hectares — de cet emplacement (qu'avait originairement suggéré pour cet objet le feu Prince Consort) furent choisis pour l'édifice projeté par les Commissaires Royaux de l'Exposition.

Cependant il était nécessaire, avant que rien ne fut fait, d'obtenir le consentement de la Couronne à cet emploi d'une portion du plus important des parcs de Londres; consentement qui fut gracieusement accordé, mais accompagné de la condition que, après la clôture de l'Exposition, le terrain serait rétabli dans son état originel et rendu de nouveau propre à la récréation et aux délassements du public. Cette condition fut, en dépit d'énergiques efforts faits pour conserver l'édifice en son lieu d'érection, fidèlement observée, et toutes traces de l'Exposition étaient complètement effacées au 1^{er} juin 1852; c'est à dire un peu plus de vingt mois depuis la pose de la première colonne, le 25 septembre 1850. Rien qui puisse dénoter que là existait une semblable construction n'est demeuré sur le terrain, si ce n'est deux ormes soigneusement protégés par des grillages en fer. L'un et l'autre de ces arbres s'élevaient, avec d'autres, dans le transept; l'un à l'extrémité nord et l'autre à l'extrémité sud. Ils servent à marquer le centre de l'édifice, et fournissent,

quoique leur croissance se soit nécessairement fort ressentie de ce long emprisonnement contre nature, une idée passable de la hauteur et de la longueur du transept central, attendu qu'ils étaient déjà dans la maturité de leur âge, et de beaux spécimens d'arbres des forêts dans leur espèce.

A l'ouest de cet emplacement, cependant, et en ligne avec lui, est maintenant en cours d'érection le Monument National Commémoratif en l'honneur du feu Prince Consort, qui s'était si complètement identifié avec la Grande Exposition de 1851. Ce monument servira, après son achèvement, à indiquer d'une façon certaine l'emplacement de la Grande Exposition de 1851, quoique se trouvant à quelques 500 yards de l'extrémité orientale de cet emplacement. Le Palais de Cristal, à Sydenham, est principalement construit avec les matériaux mêmes de l'édifice de la Grande Exposition de 1851.

L'architecte qui le construisit était feu Sir Joseph Paxton, et les entrepreneurs furent MM. Fox (maintenant Sir Charles Fox) et Henderson.

De fort considérables changements furent, néanmoins, opérés dans le plan originel de Sir Joseph Paxton, lequel plan était, en principe, celui qu'il avait adopté pour l'érection de la grande serre de Chatsworth, le château du Duc de Devonshire; et c'est à Sir Charles Barry, à Sir William Cubitt, à M. Robert Stephenson et à M. Brunel qu'est dû en grande partie l'honneur du mérite que possédait l'édifice.

DIMENSIONS D'ESPACE.

L'espace entier couvert, ou superficie totale de l'édifice, avait été originairement fixé à 800,000 pieds carrés (74,311 m. carrés), mais il fut plus tard poussé jusqu'à plus d'un million de pieds carrés (92,889 m. carrés), ou plus de vingt acres de terrain (environ huit hectares). Sur cet espace il fut calculé que la moitié (500,000 pieds carrés ou 46,444 m. carrés) serait nécessaire pour l'exposition des objets, et que

l'autre moitié serait prise par les passages, etc. Les Commissaires posèrent en principe, en apportionnant cet espace, qu'une moitié en serait donnée à la Grande-Bretagne et ses colonies, et l'autre aux pays étrangers.

NOMBRE D'EXPOSANTS.

Le nombre total des exposants a été de 13,937, dont 7,381 appartenaient à la Grande-Bretagne et ses colonies, et 6,556 aux pays étrangers. Quelques pays cependant—tels que l'Inde, la Turquie, l'Égypte, et Tunis—et des individus qui se réunirent pour envoyer ensemble leurs contributions—sont classés comme un seul exposant; de sorte qu'en les comprenant le grand total des exposants peut s'estimer à un chiffre entre 15,000 et 16,000.

Le tableau suivant donne le nombre des exposants de chaque pays, et l'espace occupé respectivement par eux:—

	Nombre d'Exposants	Espace occupé
Grande-Bretagne . . .	6,861	Mètres carrés 46,762
Colonies Anglaises. . .	520	3,798
Total . . .	7,381	50,560
Amérique (États-Unis) . .	499	4,119
Autriche	721	4,494
Belgique	506	3,449
Chine	30	481
Danemark	39	107
Égypte	—	214
France	1,710	11,128
Prusse et les États faisant partie du Zollverein } . . .	1,402	7,169
Grèce	36	53
Allemagne du Nord . . .	134	267
Hollande	113	428
Perse	12	53
Portugal	157	321
Rome	52	321
Russie	263	1,284
Sardaigne	95	374
Espagne	286	374
Suède et Norvège . . .	117	160
Suisse	263	1,120
Tunis	—	428
Turquie	—	642
Toscane	99	428
Amérique du Sud (États de l')	12	53
Total des États étrangers .	6,556	37,467
Total général . . .	13,937	88,027

DÉPENSES DE L'EXPOSITION.

Il ressort de l'analyse des dépenses publiée par les Commissaires Royaux que les sommes payées pour la construction et l'appropriation de l'édifice s'élevèrent à 170,000*l.* (4,250,000*fr.*). En estimant la superficie nette de l'espace occupé à un million de pieds carrés—92,889 m. carrés—il en résulte que le pied carré—0,0929 m. carré—a dû coûter environ 3*s.* 5*d.*—4*f.* 25*c.*

Voici quels sont les principaux chapitres de dépenses:—

Francs

Services personnels, y compris l'état-major de la Commission Royale, le comité exécutif, aide professionnel et les jurés; montant à .	1,799,375
Police	491,200
Dépenses générales d'administration, telles que loyers, mobiliers, papeterie, impressions, frais de poste, annonces, etc.	221,725
Entretien général de l'Exposition, y compris houille pour les chaudières, éclairage, eau, arrosage des routes, machines et outils, réparations, accidents, etc.	121,850
Département du Jury—Coût des médailles, étuis à médailles, diplômes, photographes, comptes-rendus de présentations, épreuves d'instruments de travail agricole et autres	172,925
Dépenses judiciaires, intérêts sur avances, et imprévu	262,700
Total	Fr. 3,069,875

Ce qui porte les frais totaux de l'Exposition, y compris l'édifice, à environ 292,795*l.*, ou 7,319,875*fr.*

On doit se rappeler, néanmoins, que la convention faite avec MM. Fox et Henderson ne comprenait pas la vente *absolue* de l'édifice à la Commission Royale, mais seulement son *usage*, la construction elle-même demeurant la propriété des entrepreneurs. S'il en eût été autrement, les dépenses de l'Exposition se fussent accrues d'au moins 100,000*l.* (2,500,000 francs).

L'Exposition fut ouverte au public le jeudi, 1^{er} mai, et close définitivement le samedi, 11 octobre, étant ainsi demeurée ouverte durant 141 jours. Cependant les lundi et mardi suivants les exposants et leurs amis y furent admis gratis, et le mercredi, 15 octobre, la cérémonie finale de clôture eut lieu en présence des exposants, des jurés, des commissaires étrangers et locaux, représentants de comités, et autres.

Le public fut admis à l'Exposition par des billets de saison et un paiement en argent aux portes. Les billets de saison pour hommes étaient de trois guinées—78*fr.* 75*c.*—ceux pour dames de deux guinées seulement—52*fr.* 50*c.* Ces taux furent réduits après le 31 juillet à 1*l.* 10*s.* et 1*l.* respectivement—37*fr.* 50*c.* et 25*fr.* Nul argent ne fut reçu aux portes le jour de l'ouverture, les porteurs de billets de saison étant seuls admis. Durant les deux premiers jours après l'ouverture le prix d'admission fut de 1*l.*—25*fr.* Du 5 au 24 mai inclusivement ce prix fut de 5*s.*—6*fr.* 25*c.* Du 26 mai au 2 août inclusivement il fut fixé comme suit:—les lundis, mardis, mercredis et jeudis, 1*s.*—1*fr.* 25*c.*; les vendredis, 2*s.* 6*d.*—3*fr.* 10*c.*; les samedis, 5*s.*—6*fr.* 25*c.*; et à partir de la dernière date jusqu'à la clôture de l'Exposition nul autre changement n'y fut apporté, à l'ex-

ception de la réduction du prix d'entrée du samedi à 2s. 6d.—3 fr. 10 c.

D'abord les portes furent ouvertes à dix heures du matin et fermées à six heures du soir, à l'exception des samedis, jour où elles ne s'ouvriraient point avant midi. Mais le lundi, 18 août, elles furent ouvertes à neuf heures au lieu de dix, et il en fut ainsi jusqu'à la clôture de l'Exposition. Quant à leur fermeture, quelques modifications y furent ultérieurement faites selon la saison. Cette fermeture, ne s'opérait point avant sept heures au cœur de l'été; et à mesure qu'avancait la saison la cloche de la retraite fut sonnée à six heures, et, plus tard, dix minutes avant le coucher du soleil.

RECETTES.

Les recettes, brutes ou nettes, provenant de toutes sources, furent comme suit:—

	Francs
Souscriptions	1,697,425
Privilage du catalogue	80,000
Privilage des rafraichissements	137,500
Billets de saison	1,687,850
Reçu aux portes	8,906,950
Chambres privées, parapluies, médailles frappées dans l'édifice, et cartes atmosphériques	114,500
Intérêts et prime sur billets de l'Echiquier	22,450
Divers	5,925
Total	Fr. 12,652,500

Le nombre de billets de saison vendus fut de 25,605, dont 13,494 pour hommes et 12,111 pour dames. Sur ce nombre, 135 billets d'hommes et 184 billets de dames furent vendus après le 31 juillet, aux prix réduits de 30s. et 20s. respectivement—37 fr. 50 c. et 25 fr.

La moyenne des recettes journalières aux portes (non compris le jour d'ouverture, où nul argent ne fut reçu) s'éleva à 2,548l.—63,700 fr.—durant tout le cours de l'Exposition. Durant les trois premières semaines, alors que le prix d'admission était de 5s.—6 fr. 25 c.—la moyenne journalière fut de 2,546l.—63,650 fr.—chiffre qui se rapproche de très-près de celui mentionné ci-dessus. La recette la plus considérable faite en un jour fut celle du mercredi, 8 octobre (jour à 1s.—1 fr. 25 c.), où l'on reçut aux portes 5,283l. (132,075 fr.), et la moindre fut celle du lundi, 26 mai, qui ne s'éleva qu'à 920l. (23,000 fr.). Il est vrai que ce jour était le premier de ceux où le prix d'admission fut réduit à 1s. (1 fr. 25 c.), et le chiffre, comparativement si peu élevé de cette recette, fut dû à une certaine appréhension de la part du public qu'un prix d'admission aussi bas n'aménât une foule si énorme à l'Exposition que la visiter ce

jour-là serait non seulement éminemment inconfortable, mais positivement dangereux.

Le tableau suivant montre les recettes totales faites aux portes aux divers taux de payement :

Nombre de Jours	Prix d'Entrée		Montant perçu		Moyenne journalière	
	Fr.	Ces.	Fr.	Ces.	Fr.	Ces.
2	25	0	26,050	0	13,025	0
28	6	25	1,533,675	0	54,775	0
30	3	10	1,811,188	75	60,371	25
80	1	25	5,549,278	75	69,365	0
140			8,920,192	50		

La perte sur l'or qui n'était pas de poids, et sur les pièces de monnaie étrangères, effacées et fausses, fut considérable, car elle s'éleva à plus de 13,250 fr., chiffre qui, déduit du total ci-dessus, explique la différence apparente entre le montant donné précédemment et celui du tableau ci-dessus.

NOMBRE DE VISITEURS.

Le nombre total des visiteurs fut pour toute la durée de l'Exposition de 6,039,195. Durant 141 jours, 773,766 personnes entrèrent avec des billets de saison; 1,042 personnes payèrent aux portes dans les deux jours où le prix d'entrée était de 1l.—25 fr. Dans 28 jours au prix d'entrée de 5s.—6 fr. 25 c.—ce prix fut payé par 245,389 visiteurs. Dans 30 jours au prix d'entrée de 2s. 6d.—3 fr. 10—il fut payé par 579,579 personnes; enfin dans les 80 jours où le prix d'admission était de 1s.—1 fr. 25—il fut payé par 4,439,419 visiteurs. Si l'on prend la moyenne journalière de ces chiffres, on aura les résultats suivants:—

Billets de saison	5,473 par jour
Visiteurs à 25 fr. d'entrée	521 „
„ à 6 fr. 25 „	8,763 „
„ à 3 fr. 10 „	19,319 „
„ à 1 fr. 25 „	55,493 „

Toutes facilités furent accordées par les Commissaires Royaux et le Comité Exécutif pour l'admission gratuite de tous ceux dont la présence dans l'édifice était absolument nécessaire, mais aucune liste de faveur, à proprement parler, ne fut en opération. Toutes les personnes employées par la Commission Royale, la police, la force armée, les commissaires étrangers, certains exposants, les agents et employés d'exposants, des membres de la presse de la métropole et de la province, et nombre d'autres personnes non désignées d'une manière spéciale, furent admises gratuitement pendant toute la durée de l'Exposition, augmentant ainsi considérablement le chiffre de celles toujours présentes dans l'édifice. La plupart entraient avant que les portes ne fussent ouvertes, et n'étaient point comptées par la police; en un mot, s'il était connu qu'elles étaient appelées par quelque motif d'affaire dans l'édifice, la règle était de ne pas les compter à quelque heure qu'elles vissent.

Ce fut le mardi, 7 octobre (quatre jours avant la clôture) que se trouva rassemblé dans l'édifice le plus grand nombre de personnes qu'il ait jamais contenu. Le chiffre des visiteurs s'éleva dans ce jour à 109,915 (le chiffre le plus haut d'un seul jour quelconque pendant toute la durée de l'Exposition); et il fut calculé qu'à deux heures près de cent mille personnes s'y trouvaient réunies. Le lundi, 6 octobre, le chiffre fut de 107,815; le mercredi, 8 octobre, de 107,760; et le jeudi, 9 octobre, de 90,813. Ces quatre jours étaient les derniers jours d'entrée à un shilling; ils fournirent donc un total de 418,303 visiteurs, ou une moyenne de 104,576 pour chaque jour.

JURY.

Le nombre des jurés nommés pour l'Exposition fut de 318—161 Anglais et 157 Étrangers—ainsi répartis:—

Autriche	17
Belgique	14
Danemark	1
Égypte	2
France	38
Grande-Bretagne	161
Grèce	1
Allemagne du Nord	2
Hollande	2
Italie	6
Portugal	2
Russie	7
Sicile	1
Espagne	4
Suisse	7
Suède	1
Turquie	5
États-Unis	24
Zollverein	23

Total . . . 318

Attachés aux jurés étaient des jurés-associés au nombre de 100, spécialement nommés par les dits jurés pour les aider à rendre leurs décisions, mais n'ayant point le droit de voter. Soixante-dix des jurés et jurés-associés étaient aussi exposants. Le tableau ci-dessous montre le nombre de jurés et jurés-associés dans chaque classe.

Classe	MATIERES BRUTES	No. de Jurés	No. de Jurés Associés
1	Mines, carrières, opérations métallurgiques et produits minéraux	8	1
2	Procédés, et produits en général, chimiques et de pharmacie	8	8
3	Substances servant à l'alimentation	6	nul
4	Substances végétales et animales principalement employées en manufacture	8	1

Classe	MATIERES BRUTES	No. de Jurés	No. de Jurés Associés
	INSTRUMENTS DE TRAVAIL.		
5	Machines d'un usage direct, comprenant les voitures et machines pour chemins de fer et navires	18	2
6	Machines et outils à manufacturer	12	6
7	Génie civil, inventions à l'usage de l'architecture et de la construction des bâtiments	8	nul
8	Architecture navale et Génie militaire, artillerie, armures de navires, et équipement	8	7
9	Machines et outils d'agriculture et d'horticulture	15	1
10	Instruments et procédés scientifiques; instruments de musique, d'horlogerie et de chirurgie	32	7
	MANUFACTURES.		
11	Coton	10	3
12	Étoffes de laine et laines filées	12	9
13	Soie et velours	10	nul
14	Articles fabriqués avec le lin et le chanvre	10	nul
15	Tissus mélangés	12	2
16	Cuir, peaux, fourrures, plumes et crin	10	1
17	Papier et articles de papeterie, impressions et reliure	8	1
18	Tissus au métier, filés, feutrés, comme spécimens d'impression et de teinture	10	2
19	Tapisserie, y compris tapis, dentelles, broderies et ouvrages de fantaisie	10	nul
20	Vêtements d'usage personnel ou domestique	8	8
21	Coutellerie et outils tranchants	6	4
22	Fer et quincaillerie en général	12	7
23	Métaux précieux travaillés, bijouterie, etc.	10	5
24	Verre	8	12
25	Articles de manufacture céramique, porcelaine, poterie, etc.	8	2
26	Meubles, décorations, papiers de tenture, articles en papier-mâché et vernis	12	4
27	Objets fabriqués avec des substances minérales pour l'usage de la construction ou de la décoration	8	3
28	Articles manufacturés avec des substances animales et végétales, non tissés ni feutrés, et non inclus dans d'autres classes	8	1
29	Articles divers et menus objets	8	3
	BEAUX ARTS.		
30	Sculpture, modèles et objets de plastique	15	nul
	Total . . .	318	100

Ce chiffre de trente classes fut plus tard élevé en réalité jusqu'à trente-quatre, par l'addition d'une sous-classe à la Classe 5 et de trois sous-classes à la Classe 10, portant ainsi le nombre des jurés à trente-quatre aussi.

RÉCOMPENSES.

Deux médailles de bronze furent décernées par les jurés, la médaille du Conseil et la simple médaille. Un certificat de mention honorable

constituait aussi une troisième récompense. La médaille du Conseil fut presque exclusivement réservée comme récompense d'inventions remarquables, n'étant pas considérée comme applicable aux cas où l'excellence de l'exécution était le seul mérite à récompenser.

Dans quelques cas rares des présents en espèces furent ajoutés aux distinctions honoraires de la médaille ou de la mention honorable, quand, par exemple, de simples artisans avaient eu à faire une dépense considérable pour produire un objet digne d'intérêt, sans qu'il y eût possibilité pour eux de rentrer dans leurs déboursés.

Le nombre total des récompenses décernées par les jurés fut :—

Médailles du Conseil . . .	171
Médailles Simples . . .	2,954
Mentions Honorables . . .	2,123
Total . . .	5,248

RÉCAPITULATION DES RÉCOMPENSES.

Grande-Bretagne et Colonies :

Médailles du Conseil . . .	79
Médailles Simples . . .	1,432
Mentions Honorables . . .	930
	— 2,441

Pays Étrangers :

Médailles du Conseil . . .	92
Médailles Simples . . .	1,522
Mentions Honorables . . .	1,193
	— 2,807
Total . . .	5,248

EXPOSITION UNIVERSELLE DE PARIS DE 1855.

IL est quelque peu difficile de désigner exactement les localités et positions relatives des divers édifices de l'Exposition Universelle de Paris de 1855. Le principal consistait en une vaste construction rectangulaire, de forme presque carrée, située dans la principale avenue des Champs Élysées, et bien connue sous le nom de Palais de l'Industrie. Cet édifice était solidement construit, et dans un but de durée. Il servit à exposer principalement les produits des vingt-sept classes industrielles. Au sud de l'édifice principal, et reliée à lui par des galeries et passages couverts, était une longue et étroite construction appelée l'Annexe ou Galerie du Quai, et qui s'étendait sur la rive nord de la Seine, dont elle était très proche. Cette Annexe, longue de 4,000 pieds, fut consacrée principalement à l'exposition des machines. Le troisième édifice, destiné aux trois classes formant la division des Beaux-Arts (Palais des Beaux-Arts), était situé à une distance assez considérable des deux autres, se trouvant à l'extrémité sud-ouest, ou celle aboutissant au fleuve, de l'Avenue Montaigne. Ce dernier édifice était complètement séparé des deux premiers, la distance et la localité rendant impossible l'établissement même de passages pour le relier à eux.

Entre le Palais de l'Industrie et l'Annexe était une construction circulaire, connue sous le nom de Panorama ou Rotonde du Panorama, dans laquelle étaient exposés les joyaux de la couronne de France, et une grande variété de tapisseries, tapis, etc. À l'extérieur, et entourant cette Rotonde, s'étendait un espace considérable, couvert en partie, dans lequel avait lieu l'exposition des voitures et véhicules de toutes sortes, ainsi que des instruments et outils de travail agricole. Une ample portion de cet espace était consacrée aux salles de rafraîchissements. La seule construction dont il nous reste à faire mention

était l'Exposition chinoise, attachée au Palais des Beaux-Arts, mais nullement reliée à lui. Dans le fait, cette Exposition chinoise ne fut jamais considérée comme faisant partie intégrante de l'Exposition Internationale; et si nous la mentionnons ici, ce n'est qu'afin de compléter notre description, et parce que l'espace qu'elle occupait était réellement (quoique séparé) une portion de celui occupé par l'édifice consacré aux Beaux-Arts.

L'Exposition Internationale française de 1855 comprenait donc, sans compter la Rotonde du Panorama, trois édifices distincts et séparés : le Palais de l'Industrie, ou édifice central, l'Annexe des Machines, et le Palais des Beaux-Arts. Relativement à ce dernier, le Gouvernement français avait eu en vue la possibilité de consacrer une partie du nouveau Palais du Louvre à l'exposition des objets d'art envoyés; et il n'est point douteux que cette intention n'eût été réalisée si ce n'eût été l'impossibilité de le faire sans apporter un trop grand obstacle à la continuation des importants et urgents travaux alors en cours d'exécution tant à l'intérieur qu'à l'extérieur du palais.

Quoique les préparatifs et l'érection de ces édifices pour l'Exposition Universelle de Paris de 1855 aient été initiés et principalement réalisés avec le capital d'une Compagnie commerciale organisée à Paris, ce fut le Gouvernement français seul qui eût, en réalité, la direction pleine et entière de l'Exposition, et qui prit pour lui tous les risques de l'entreprise en garantissant à la Compagnie un certain tant pour cent de bénéfice sur ses déboursés. En conséquence, une Commission Impériale, présidée par le Prince Napoléon, fut nommée par l'Empereur pour diriger l'Exposition; et quoique la Compagnie eût bien certains privilèges et pouvoir de faire quelques règlements, ce n'en fut pas moins le Gouvernement

qui se mit virtuellement en son lieu et place, et se chargea exclusivement du contrôle entier de l'entreprise.

Messieurs Viel et Desjardins furent les architectes de l'édifice principal, et MM. York et Cie. furent les entrepreneurs qui exécutèrent les travaux. Toutes les constructions étaient d'un caractère temporaire excepté l'édifice principal et central; et toutes, par conséquent, furent, à cette exception près, enlevées très peu de temps après la clôture de l'Exposition. L'édifice principal (Palais de l'Industrie) dans les Champs-Élysées fut seul conservé, et existe encore. Il appartient au Gouvernement, et sert à l'exposition d'œuvres d'art, et autres usages de même nature.

DIMENSIONS D'ESPACE.

La totalité de l'espace horizontal occupé par tous les pays qui exposèrent dans les divisions Industrielles, y compris passages et toutes entrées, ainsi que bureaux et pièces de réception, était de 152,052 mètres carrés, ou environ 1,770,000 pieds superficiels Anglais. Dans l'édifice consacré aux Beaux-Arts l'espace total occupé par les œuvres d'art dans les classes de peinture, gravure, lithographie, sculpture, et architecture, fut de 17,639 mètres carrés—15,603 mètres carrés de superficie verticale pour les peintures, gravures, etc., et 2,036 mètres carrés de superficie horizontale pour les œuvres de sculpture—ce qui fait ensemble un total de 169,691 mètres carrés (environ 1,866,000 pieds carrés) pour l'espace occupé par les exposants dans les diverses classes de l'Exposition, et par les passages, bureaux, et toutes accommodations en vue de la convenance générale du public. Dans ces chiffres ne sont point compris les entrées, bureaux, et l'espace superficiel de plancher non occupé par des œuvres d'art, dans le Palais des Beaux-Arts; détails que ne donne point; au reste, le rapport de la Commission Impériale.

La répartition de l'espace d'exposition dans l'édifice principal ou Palais de l'Industrie, la Rotonde du Panorama, et l'Annexe des Machines, fut comme suit:—

	Mètres carrés
France	55,669
Pays étrangers	46,097
Passages, etc. . . .	17,021
Total	118,786

Dans la division des Beaux-Arts la France occupa, d'après le rapport, 2,400 mètres carrés de superficie murale pour peintures, etc.; la Grande-Bretagne, 938 mètres carrés; le surplus de l'espace fut réparti entre dix autres pays. En réalité, l'espace occupé par le Royaume-Uni pour œuvres d'art s'éleva environ à 14,184 pieds carrés.

Le total de l'espace horizontal occupé à l'Exposition Universelle de Paris de 1855 par la Grande-Bretagne et ses Colonies à l'intérieur des

divers édifices fut—aussi près qu'il est possible de s'en assurer—de 183,000 pieds carrés, dont 14,184 pieds carrés consacrés aux œuvres exposées dans les trois classes des Beaux-Arts.

Quoique l'espace occupé par chaque pays dans la division des Beaux-Arts ne soit pas mentionné dans le rapport de la Commission Impériale, il donne néanmoins le nombre d'exposants dans chacune des trois classes.

Dans le rapport présenté au Parlement sur la division anglaise de l'Exposition, le nombre des artistes anglais qui ont exposé dans la section des Beaux-Arts est ainsi donné, avec le nombre de leurs œuvres:—

Peintures à l'huile	234	exposées	par 99	artistes
Aquarelles	145	„	52	„
Gravures et Litho- graphies	197	„	62	„
Œuvres d'Archi- tecture	127	„	51	„
Statues	51			
Bustes et Bas-re- liefs	24	„	35	„
Total	778		299	

Et la valeur des œuvres anglaises envoyées est estimée comme suit:—

	Francs
Peintures à l'huile	2,403,250
Aquarelles	391,325
Gravures et Lithographies	41,900
Œuvres d'Architecture	144,125
Sculpture	458,400

Total Fr. 3,439,000

Ce qui donne une valeur moyenne de 4117. (10,275 fr.) pour chaque peinture à l'huile; de 1087. environ (2,700 fr.) pour chaque aquarelle; et de 2447. environ (6,100 fr.) pour chaque œuvre de sculpture. Les gravures, lithographies et dessins d'architecture, ne sont point compris, pour raisons évidentes, dans ce calcul.

En addition aux statistiques qui précèdent relativement à l'espace horizontal ou superficiel de l'Exposition de Paris, il sera peut-être intéressant de faire connaître le total de surface verticale occupée par les objets exposés, et le mesurage linéaire ou courant de la totalité des vingt-sept classes industrielles. Ces calculs sont extraits du rapport de la Commission Impériale.

	Mesurage Linéaire	Surface verticale ou de Muraille Mètres carrés
	Mètres	
France, Algérie et Colonies	18,949	33,421
Autriche	2,335	3,512
Belgique	1,509	2,350
Grande-Bretagne et Colonies	4,404	6,373
Prusse	1,828	2,796
Suède	464	442
Suisse	409	584
Autres pays, en- semble	3,871	4,131
Totaux	33,769	53,099

NOMBRE D'EXPOSANTS.

Le nombre total des exposants qui participèrent à l'Exposition Universelle de Paris de 1855 fut de 23,954. Sur ce chiffre 21,779 ont exposé dans les vingt-sept classes industrielles, et 2,175 dans les trois classes de la division des Beaux-Arts.

Le nombre d'exposants de chaque pays dans les classes industrielles a été comme suit :—

	Exposants
France	10,003
Algérie	728
Colonies	183
	<hr/> 10,914
Amérique (États-Unis)	131
Amérique du Sud	38
Autriche	1,298
Bade	88
Bavière	172
Belgique	687
Danemark	90
Espagne	569
États Pontificaux	72
Grande-Bretagne	1,589
Canada	348
Australie et Terre de Van Diemen	405
Inde	599
Guiane anglaise	95
Colonies moindres	233
	<hr/> 3,269
Grèce	131
Hesse	88
Mexique	107
Nassau	59
Norvège	121
Hollande	411
Portugal	443
Prusse	1,319
Sardaigne	294
Saxe	96
Suède	418
Suisse	408
Toscane	197
Villes hanséatiques	89
Wurtemberg	207
Autres pays, savoir: Anhalt-Dessau et Cöthen, 15; Brunswick, 16; Confédération Germanique, 20; Égypte, 6; Francfort-sur-le- Mein, 24; Hanovre, 18; Royaume Hawaïen, 5; Luxembourg, 23; Saxe (cinq duchés), 23; Tunis, 1; Turquie, 2	153
	<hr/> Total . 21,779

Le nombre d'exposants de chaque pays dans la division des Beaux-Arts est mentionné dans le texte anglais.

Cinquante-trois états étrangers et vingt-deux colonies étrangères furent représentés à l'Exposition, non compris la France, les trois provinces d'Algérie et huit Colonies françaises.

Si on divise le nombre total d'exposants, y compris ceux dans les classes des Beaux-Arts,

en Français et étrangers, les chiffres seront les suivants :—

Empire français	11,986
États étrangers	11,968

Total . 23,954

Le rapprochement extrême des deux nombres formant ce total ne peut manquer d'être remarqué comme un fait fort extraordinaire.

DÉPENSE DE L'EXPOSITION.

D'après le rapport de la Commission Impériale sur l'Exposition Universelle de Paris de 1855, cette Exposition a coûté comme suit :—

	Francs	Sterling
Division Industrielle	8,961,620	£358,464 16s.
Division des Beaux-Arts	2,302,900	= £92,116 0s.

Total . Fr. 11,264,520 = £450,580 16s.

Dans cette somme n'est point compris ce qu'a coûté l'édifice principal, ou Palais de l'Industrie, plus tard acheté par le Gouvernement Français : par conséquent la dépense totale de l'Exposition doit être évaluée à presque le double, sinon plus, et a dépassé, selon toutes probabilités, un million sterling—25,000,000 fr.

Prenant donc 500,000 fr.—12,500,000 fr.—pour le chiffre de ce qu'a coûté le Palais de l'Industrie, et acceptant les chiffres donnés dans le rapport de la Commission Impériale pour les autres édifices, savoir :

	Francs
L'Annexe	2,602,000
La Galerie de Jonction et la Rotonde du Panorama	607,000
Le Palais des Beaux-Arts	1,051,700
Constructions supplémentaires	105,800

on approchera du chiffre exact en disant que les bâtiments seuls ont coûté 674,660 fr.—16,856,500 fr.

Calculant que le total d'espace horizontal ait été de 169,691 mètres carrés, ou environ 1,866,000 pieds carrés, et que la dépense totale encourue pour les bâtiments, à part l'acquisition du Palais de l'Industrie, ait été celle indiquée plus haut, il s'ensuit que le pied carré —0,092 m. c.—a coûté près de 7s. 3d.—9 fr. 0s.

Il était nécessaire que le Gouvernement anglais prêtât son aide pour que la Grande-Bretagne fût représentée à l'Exposition Universelle de Paris de 1855 d'une manière convenable et proportionnée à son importance. Des devis furent en conséquence préparés et soumis au Parlement, et le résultat fut le vote d'une somme de 50,000 fr.—1,250,000 fr.—dont l'emploi demeurerait sous la responsabilité du Ministère du Commerce.

Or, la dépense nette faite en vertu de ce vote ne fut que de 39,259 fr.—981,475 fr.—plus de 10,000 fr.—250,000 fr.—de moins que le

montant de la somme octroyée par le Parlement—démonstration pratique de l'économie rigide qui présida à l'emploi de cet argent.

Les dépenses totales de la division anglaise furent les suivantes pour les divers chapitres du service :—

	Francs
Arrangements préliminaires	79,275
Fret, transport des objets, frais de douane, etc.	189,700
Dépenses d'administration à Paris	82,050
Complètement et décoration de la division anglaise	99,625
Entretien, nettoyage et surveillance	86,150
Enlèvement et enmagasinage des caisses d'emballage	23,575
Impressions, annonces, frais de poste, de bureaux, papeterie, etc.	34,575
Frais faits pour assurer une représentation convenable des produits bruts et des appareils scientifiques	51,675
Division des Beaux-Arts	161,925
Jurés et leurs rapports	104,125
Imprévus	68,800
Total	Fr. 981,475

Un article considérable dans les dépenses relatives à la division anglaise des Beaux-Arts fut l'assurance des diverses œuvres envoyées, contre les risques du voyage, par chemins de fer et par mer, et contre les risques d'incendie durant leur transit et durant leur séjour dans l'édifice. Les taux d'assurance varièrent de 2½. 10s. à 3½. pour cent, et le montant payé aux assureurs du Lloyd, et autre part, s'éleva à la somme de 2,715*l.*—65,875 fr.

ADMISSION DES VISITEURS.

L'Exposition Universelle de Paris de 1855 fut ouverte par l'Empereur en personne le mardi, 15 mai; mais, à cette date, les installations générales étaient si incomplètes, et tellement en retard, que le Palais des Beaux-Arts et une partie des divisions de l'Industrie seulement étaient dans un état de progrès suffisant pour supporter l'examen. L'Annexe des Machines, la Rotonde du Panorama, et les constructions extérieures ne furent ouvertes qu'à une période beaucoup plus avancée.* L'intention première était d'ouvrir l'Exposition le 1^{er} mai, et un décret Impérial fut même publié annonçant ce jour comme celui de l'ouverture; mais elle dut être inévitablement remise en raison de l'état d'imperfection et d'inachèvement de presque toutes les divisions. Le jeudi, 15

novembre, eut lieu la cérémonie de clôture en présence de l'Empereur, avec grand succès et grande ponctualité. Enfin, le vendredi, 30 novembre, l'Exposition fut définitivement close, quoique l'enlèvement des objets exposés eût réellement commencé le jour qui suivit la cérémonie de clôture, et eût continué tous les jours suivants sans interruption.

Le nombre total de jours durant lesquels fut ouverte l'Exposition, c'est-à-dire du 15 mai au 30 novembre (inclusivement), fut de 200 exactement, dimanches compris.

Les visiteurs étaient admis par billets de saison et par paiements aux portes. Un seul jour, le dimanche, 27 mai, l'Exposition entière fut ouverte gratuitement au public.

Les billets de saison étaient de 50 francs pour la division de l'Industrie, et autant pour celle des Beaux-Arts; de sorte qu'un billet de saison pour l'Exposition entière coûtait 100 francs. D'autres billets également de saison, mais conférant des privilèges restreints, furent aussi mis à la disposition du public à raison de 25 francs chaque. Les prix d'entrée payables aux portes furent de 5 francs, 2 francs, 1 franc, et 20 centimes. Les lundis, mardis, mercredis, jeudis, et samedis, le prix d'entrée était de 1 franc; les vendredis, de 5 francs; et les dimanches, de 20 centimes. Les tarifs d'admission étaient les mêmes pour le Palais des Beaux-Arts. A partir du 1^{er} août le prix d'entrée du vendredi fut réduit à 2 francs; et à partir du 11 du même mois les compagnies de chemins de fer et autres furent autorisées à organiser—les dimanches et lundis de chaque semaine—des trains d'Exposition, dont les voyageurs non seulement jouissaient d'une réduction de 40 pour cent sur le prix habituel des places, mais avaient encore leur entrée gratuite aux divisions de l'Industrie et des Beaux-Arts, ou pouvaient visiter deux fois l'une ou l'autre gratuitement. En outre, durant le mois d'août, un grand nombre de visiteurs appartenant aux classes ouvrières, et venus de tous les points de la France, furent admis au prix de 20 centimes seulement. Tous les militaires, tant en activité de service qu'en retraite, avaient le privilège d'entrée journalière gratuite, jusqu'à concurrence d'un certain nombre, entre neuf et onze heures. Le même privilège, soumis à de faciles règlements, était aussi accordé aux élèves des écoles militaires, ainsi qu'aux membres de la presse, soit française, soit étrangère. Les porteurs de billets de saison furent seuls admis le jour de l'ouverture, ainsi que celui de la visite de la Reine Victoria à l'Exposition, le 24 août.

RECETTES.

Le total des recettes atteignit le chiffre de 3,202,485 francs.

Le nombre de billets de saison vendus fut de 4,843, dont 4,663 pour les parties de l'Exposition consacrées à l'Industrie, et 180 pour le

* Machines Agricoles, 5 juin; Annexe, 10 juin; Panorama et Galerie de Jonction, 30 juin.

Palais des Beaux-Arts, produisant ensemble la somme de 200,400 francs. Après avoir déduit le jour de l'ouverture, où les porteurs de billets de saison furent seuls admis, et celui où l'Exposition fut ouverte gratuitement, la moyenne des recettes journalières fut de 16,174 francs. Les recettes pour la division de l'Industrie furent 2,566,195 francs, et pour celle des Beaux-Arts 636,290 francs; ce qui fait une moyenne journalière de recette, pour la première de 12,960 francs, et pour la seconde de 3,213 francs et demi.

NOMBRE DE VISITEURS.

Le nombre total des visiteurs de l'Exposition Universelle de Paris de 1855 fut de 5,162,330, dont 4,180,117 entrèrent dans les diverses divisions Industrielles, et 982,213 visitèrent la division des Beaux-Arts. Dans ce dernier chiffre, néanmoins, sont compris 46,612 visiteurs de l'Exposition Chinoise, à laquelle on a fait allusion plus haut. Le nombre de visites faites à la division Industrielle par les porteurs de billets de saison a été estimé à 94,000; celui des visites faites à celle des Beaux-Arts à 3,800. Le nombre total des visiteurs de la division Industrielle dans les jours à 5 francs d'entrée fut de 22,747, et de 11,179 pour celle des Beaux-Arts: ensemble 33,926. Dans les jours à 2 francs d'entrée les totaux furent, pour la division Industrielle, 73,816; pour celle des Beaux-Arts, 21,872: ensemble 95,688. Pour les jours à 1 franc d'entrée le nombre total de visiteurs fut de 2,103,535, dont 1,683,798 pour l'Industrie, et 419,737 pour les Beaux-Arts. Enfin, dans les jours où le prix d'entrée n'était que de 20 centimes, 2,196,795 personnes visitèrent l'Exposition, savoir, 1,752,518 la division Industrielle, et 444,277 celle des Beaux-Arts. A ces chiffres on doit ajouter 26,322 visiteurs de la collection Chinoise les jours où le prix d'entrée en était de 50 centimes.

Le nombre des personnes qui entrèrent avec des cartes d'exposants a été estimé, approximativement, à 445,000, dont 420,000 pour les classes Industrielles, et 20,000 pour la division des Beaux-Arts. Les soldats et militaires en retraite qui usèrent du privilège d'entrée gratuite dans la division Industrielle, entre 9 et 11 heures, s'élevèrent à 80,118 en totalité; et le nombre des élèves des écoles militaires qui profitèrent de ce même privilège, mais pour l'Exposition entière, fut de 797. Enfin le nombre total de visites faites à l'Exposition par les personnes faisant partie des trains d'excursions privilégiés, les dimanches et lundis, s'éleva à 24,455; mais ces chiffres, qu'on le comprenne bien, ne sont qu'une approximation du nombre de visites faites par les visiteurs des diverses catégories, et ne représentent nullement des individus séparés. Ainsi, par exemple, si un militaire en retraite allait dix fois à l'Exposition, il était compté comme dix visiteurs, et ainsi de suite.

Le dimanche, 27 mai, jour auquel l'Exposition entière fut ouverte gratuitement au public, le nombre total de visiteurs s'éleva à 105,022, dont 80,118 entrèrent dans la division de l'Industrie, et 24,904 dans celle des Beaux-Arts.

Le plus grand nombre de visiteurs en un seul jour, durant toute la durée de l'Exposition, se présenta le dimanche, 9 septembre, où l'on compta qu'il était entré 123,017 personnes. Au reste, des chiffres fort élevés s'offrirent dans chacun des 24 dimanches du 3 juin au 11 novembre, la moyenne étant de 89,223 pour chaque dimanche; et dans huit d'entr'eux le nombre de visiteurs dépassa de beaucoup 100,000.

Il paraît que près de 160,000 étrangers visitèrent Paris durant l'Exposition, dont plus de 40,000 étaient sujets anglais, ou plus des deux tiers du nombre d'étrangers qui visitèrent Londres dans l'année de l'Exposition de 1851. D'après les rapports de la police française, les divers départements de la France auraient envoyé plus de 350,000 visiteurs à Paris durant l'Exposition de 1855.

JURÉS.

La classification de l'Exposition de Paris de 1855 fut comme suit :—

Classe

1. Mines et Produits Métallurgiques.
2. Produits Forestiers, de la Chasse, de la Pêche, et autres obtenus sans culture.
3. Agriculture.
4. Mécanique Générale Appliquée à l'Industrie.
5. Machines et Appareils Spéciaux pour Chemins de Fer et autres modes de transport.
6. Machines et Appareils Spéciaux pour Ateliers industriels.
7. Machines et Appareils Spéciaux pour la manufacture des Tissus.
8. Arts de Précision, Industries se rattachant aux Sciences et à l'Enseignement.
9. Industries concernant l'emploi économique de la Chaleur, de la Lumière, et de l'Électricité.
10. Produits Chimiques, Teinture et Impression, Papier, Cuir, Peaux, Caoutchouc, &c..
11. Préparation et Conservation des Substances Alimentaires.
12. Hygiène, Pharmacie, Chirurgie, et Médecine.
13. Marine et Art Militaire.
14. Génie Civil et Constructions.
15. Acier et ses Produits.
16. Ouvrages en Métaux en général.
17. Orfèvrerie, Bijouterie, et Bronzes.
18. Industrie de la Verrerie et de la Céramique.
19. Manufactures de Coton.
20. Manufactures de Laine tissée et filée.
21. Manufactures de Soie.
22. Manufactures de Lin et de Chanvre.
23. Bonneterie, Tapis, Broderie, Dentelle de toutes sortes, Franges d'Or et d'Argent, etc.

24. Meubles et Décoration.
25. Articles d'Habillement ; objets de Mode et de Fantaisie.
26. Dessin et Plastique appliqué à l'Industrie, Photographie, etc.
27. Manufacture d'Instruments de Musique.
28. Peinture, Gravure, et Lithographie.
29. Sculpture et Gravure en creux.
30. Architecture.

Ces trois dernières classes constituaient la division des Beaux-Arts.

Une autre classe fut ajoutée après l'ouverture de l'Exposition, la Classe 31, Produits d'Economie Domestique, comprenant des articles d'une utilité et d'un bon marché remarquables, et choisis principalement parmi ceux exposés dans les autres classes.

RÉCOMPENSES.

Par Décret Impérial, en date du 10 Mai, 1855, les récompenses à décerner par les Jurés Internationaux furent les suivantes :

Pour les vingt-sept classes Industrielles : 1^o, une Médaille d'Or (Médaille d'Honneur) ; 2^o, une Médaille d'Argent ; 3^o, une Médaille de Bronze ; et, 4^o, un Certificat de Mention Honorable.

Pour la Division des Beaux-Arts : 1^o, une Médaille d'Or de Première Classe ; 2^o, une Médaille d'Or de Seconde Classe ; 3^o, une Médaille d'Or de Troisième Classe ; et 4^o, un Certificat de Mention Honorable.

Et, en outre, la récompense spéciale de la Grande Médaille d'Honneur.

Des récompenses en argent furent aussi accordées dans des cas particuliers. La Décoration de la Légion d'Honneur fut en outre largement distribuée par l'Empereur à ceux qui participèrent à l'Exposition, et peut presque être considérée comme un supplément de récompense à celles déjà mentionnées.

D'après le rapport de la Commission Impé-

riale, la valeur de chacune des Médailles d'Or était comme suit :—La Grande Médaille d'Or d'Honneur, 5,000 francs ; Médaille d'Or de Première Classe, 750 francs ; Médaille d'Or de Seconde Classe, 650 francs ; Médaille d'Or de Troisième Classe, 550 francs.

Par un Décret d'une date postérieure à celui que nous avons cité plus haut, la dénomination des médailles décernées aux divisions Industrielles fut changée ainsi : La Médaille d'Or fut appelée la Grande Médaille d'Honneur ; la Médaille d'Argent devint la Médaille de Première Classe ; et la Médaille de Bronze la Médaille de Seconde Classe.

On ne trouve dans le Rapport de la Commission Impériale nul tableau montrant le nombre de récompenses décernées dans chaque classe et à chaque pays. Ce renseignement est néanmoins donné dans les Rapports des Jurés, mais d'une façon qui rend impossible de l'utiliser pour le but que se propose cette notice. C'est une lacune regrettable, car un semblable tableau eût sans doute fourni des statistiques de valeur et d'un grand intérêt.

Des récompenses furent aussi décernées aux co-opérateurs et ouvriers (colonies comprises) qui, bien que n'étant point exposants, avaient contribué à l'invention, la production, et l'arrangement des articles et substances envoyées à l'Exposition. Une Grande Médaille d'Honneur, une Médaille d'Honneur, 27 Médailles de Première Classe, 56 Médailles de Seconde Classe, et 42 Mentions Honorables furent ainsi distribuées ; ce qui constitue une addition de 130 récompenses décernées par le Jury à celles énumérées ci-dessus.

Dans les trois classes des Beaux-Arts le nombre total des récompenses décernées aux exposants Anglais fut de 64, savoir : 2 Grandes Médailles d'Honneur ; 9 Médailles de Première Classe ; 8 Médailles de Seconde Classe ; 11 Médailles de Troisième Classe, et 34 Certificats de Mention Honorable.

EXPOSITION INTERNATIONALE DE 1862.

Les divers édifices qui constituaient l'Exposition Internationale de 1862 furent élevés sur une pièce de terrain contigue à l'extrémité méridionale des Jardins Royaux d'Horticulture à South Kensington et obtenue pour cet objet des Commissaires Royaux de la Grande Exposition de 1851. Ce terrain faisait partie de propriétés achetées par les Commissaires avec le surplus résultant de l'Exposition, augmenté d'une somme octroyée par le Parlement.

La quantité totale de terrains ainsi achetées dans le voisinage immédiat de cet emplacement (auquel, dans le fait, ils sont contigus) était de 86 acres—34,792 h.—qui coûtèrent 280,000^l., 7,000,000^{frs.}—ou une moyenne de 3,250^l.—81,250 frs.—l'acre : 4,056 a. Pri-

mitivement on avait pensé que 300,000^l.—7,500,000^{frs.}—suffiraient pour acquérir tout le terrain désiré, les Commissaires Royaux convenant de consacrer à cette acquisition 150,000^l.—3,750,000 frs.—de leur surplus, qui s'élevait à 170,000^l.—4,250,000^{frs.}—environ, et le Parlement fournissant une somme égale afin d'assurer la possession d'un ensemble de terrains situés dans le voisinage immédiat de la métropole, et sur lequel on pût ériger des édifices consacrés à l'éducation, afin de favoriser le progrès des sciences, des arts, et des manufactures.

Les propriétés achetées furent les suivantes :—celle de Gore House, située à Kensington Gore, presque en face de l'emplacement de la

Grande Exposition de 1851, comprenant 21 acres — 8,498 hectares — et coûtant 60,000l. — 1,500,000frs. ; la propriété de Villars, acquise des curateurs à la succession du Baron de Villars, de 48 acres — 19,424 h. — et coûtant 153,500l. — 3,387,500frs. Contigus à ces deux propriétés se trouvaient 17 acres — 6,879 h. — appartenant au Comte de Harrington, qui furent payés environ 66,500l. — 1,662,500frs.

En 1858 fut dissoute par le Parlement l'association existant entre lui et les Commissaires Royaux ; en conséquence, la totalité du terrain acquis se trouva en la possession de ces derniers seuls, à l'exception cependant de 12 acres — 4,856 h. — sur lesquels s'élève les bâtiments du Département de Science et d'Art, mieux connu sous le nom de 'Musée de South Kensington,' et dont le Gouvernement consentit à déduire le prix (60,000l. — 1,500,000frs.) des 150,000l. votées, et qu'avaient alors à rembourser les Commissaires.

Les constructions principales de l'Exposition Internationale de 1862 couvraient environ 17 acres de terrain — 6,879 h. — non compris les deux annexes à l'est et à l'ouest des Jardins d'Horticulture, que l'on peut estimer à 7 acres — 2,832 h. — de plus : la superficie totale de l'ensemble des constructions était donc de plus de 24 acres — 4,712 h. La configuration de l'emplacement était presque rectangulaire, mesurant 1,200 pieds — 365,72 m. — de l'est à l'ouest, et 560 pieds — 160,63 m. — du nord au sud. La façade principale se trouvait dans Cromwell-road, l'entrée occidentale dans Prince Albert's-road, et celle orientale dans Exhibition-road.

Quoique la plus grande partie de l'édifice de 1862 fût d'un caractère massif et substantiel, et qu'il eût été construit avec une intention évidente de durée, il n'en était pas moins condamné à être démoli, et l'emplacement sur lequel il s'élevait devait rentrer dans son premier état — non pas que de grands efforts n'aient été faits pour le sauver, surtout les nombreuses galeries d'exposition des tableaux. Quoiqu'il en soit, le Parlement acheta le terrain des Commissaires Royaux dans le but de le consacrer à des projets d'utilité nationale (par un vote de 120,000l. — 3,000,000frs. — pour 17½ acres — 7,081 h. — passé le 13 Juin, 1863), mais se refusa à acquérir les bâtiments, qui disparurent en conséquence, laissant le terrain libre. Cet emplacement n'est toujours pas occupé, et nul reste de l'édifice de l'Exposition de 1862 ne subsiste, à l'exception cependant des salles de rafraîchissements et des galeries s'élevant sur l'arcade méridionale des Jardins d'Horticulture, et qu'acheta aussi le Gouvernement. Ces galeries sont maintenant occupées par le Département de Science et d'Art en vertu d'un arrangement avec le Ministère des Travaux Publics.

L'Édifice — ou plutôt les Édifices — furent construits d'après les plans du feu Capitaine Fowke, du Génie Royal, architecte et ingénieur du Département de Science et d'Art, et les entrepreneurs étaient M. Kelk et MM. Lucas Frères.

DIMENSIONS D'ESPACE.

La superficie totale de l'espace couvert par l'édifice se montait à 1,291,800 pieds — 119,994 mètres — carrés ; dont 147,700 pieds — 13,720 m. — carrés étaient pris par les salles de rafraîchissements, les bureaux d'administration, entrées et escaliers, laissant 1,144,100 pieds — 106,274 m. — carrés disponibles pour l'Exposition proprement dite.

Dans la répartition de cet espace les Commissaires Royaux se conformèrent au principe, maintenant généralement reconnu et admis, d'en donner une moitié au pays dans lequel a lieu l'Exposition, et l'autre aux pays étrangers.

NOMBRE DES EXPOSANTS.

Le nombre total des exposants à l'Exposition Internationale de 1862 fut de 23,653, y compris 2,305 artistes dont les œuvres furent exposées dans les quatre classes de la division des Beaux Arts. Le nombre total d'exposants dans les trente-six classes industrielles fut de 26,348, dont 8,487 Anglais (y compris les colonies) et 17,861 étrangers. Dans la section des Beaux Arts, le nombre d'artistes Anglais représentés fut de 990, et d'artistes étrangers de 1315 ; et le nombre total de leurs œuvres exposées fut de 6,259, dont 3,651 anglaises, et 2,878 étrangères.

DÉPENSE.

La dépense totale de l'entreprise peut être établie en chiffres ronds à 460,000l. — 11,500,000fr.

Avant de donner les divers items composant ce chiffre nous ferons d'abord observer que le marché fait avec les entrepreneurs pour l'édifice principal, y compris l'acre central des galeries de tableaux et l'annexe occidentale, ne comprenait que son usage et la détérioration en résultant, avec faculté d'achat, à des conditions spécifiées, à la clôture de l'Exposition. Les termes de ce marché stipulaient que les entrepreneurs recevaient le prix absolu de 200,000l. — 5,000,000 frs. ; plus une somme additionnelle de 100,000l. — 2,500,000 frs. — si les recettes atteignaient le chiffre de un demi-million — 12,500,000 frs. ; mais au cas où ils eussent reçu les 300,000l. — 7,500,000 frs. — l'aire centrale de la galerie de tableaux fût devenu la propriété des Commissaires de l'Exposition.

Nous ferons encore observer que, dans le but de faire face à une perte pécuniaire possible dans une si vaste entreprise, la Société des Arts avait recommandé aux Commissaires Royaux de l'Exposition de 1851 l'établissement d'un fonds de garantie d'au moins 250,000l. — 6,250,000 frs. L'appel à cet effet qui fut, en conséquence, fait au public eut un résultat dépassant toutes les espérances, puis-

que le montant souscrit s'éleva à plus de 450,000.—11,250,000 frs. Aux termes de l'Acte de Garantie la responsabilité de chaque garant était limitée à sa part au prorata du capital total à constituer. Le nombre de personnes se portant garants qui signèrent l'Acte fut de 1,152, et la limite de responsabilité fut fixée à 250,000.—6,250,000 frs.

Les principaux items de dépense furent les suivants :—

Aux entrepreneurs de la construction, y compris 86,833.—2,170,825 frs.—pour l'annexe orientale	Francs 8,017,000
Plans, dessins, et surintendance professionnelle	208,075
Routes et approches	358,975
Police	485,900
Assurance et pompiers	102,200
Appointements et salaires	1,144,450
Loyers, impôts, réparations, mobilier, impressions, papeterie, articles de bureau, annonces et dépenses fortuites	293,725
Entretien, y compris la cérémonie d'ouverture, déclaration des récompenses, gaz, combustible, eau, etc., etc.	242,250
Transport de tableaux, etc.	105,050
Médailles	160,250
Dépenses préliminaires et frais judiciaires	91,700
Mesurage de l'espace et arrangement général	91,900
Intérêts sur prêt par la Banque d'Angleterre, déduction faite des intérêts sur fonds placés	183,275
Autres items de dépenses non énumérées	31,175
Total . . .	Frs. 11,480,925

Prenant, par conséquent, le chiffre de 321,000.—8,025,000 frs.—pour total de ce qu'a coûté l'édifice de l'Exposition, et celui de 1,292,000 pieds—120,012 m.—carrés pour le total d'espace couvert, on trouvera que la dépense a été de près de cinq shillings—6 fr. 25—par pied carré.

ADMISSION DES VISITEURS.

L'Exposition Internationale de 1862 fut ouverte au public le jeudi, 1 mai, et close le samedi, 15 novembre, ce qui fait un total de 171 jours durant lesquels y furent admis les visiteurs.

L'admission du public eut lieu :—

1° Par billets de saison.

2° Par paiement aux portes.

Les porteurs de billets de saison furent seuls admis le jour de l'ouverture. Le prix d'en-

trée fut fixé à 1l.—25 fr.—pour les deux jours suivants; puis, du 5 au 17 mai (inclusivement) à 5s.—6fr. 25—par personne; du 19 au 31 mai (inclusivement) à 2s. 6d.—3fr. 10—à l'exception du samedi de chaque semaine, jour auquel ce prix était de 5s.—6fr. 25; du 2 au 14 juin il fut de 1s.—1fr. 25—pour les quatre premiers jours de la semaine, de 2s. 6d.—3fr. 10—pour les vendredis, et de 5s.—6fr. 25—pour les samedis; du 16 juin au 1 novembre le prix d'admission fut de 1s.—1fr. 25—pour les quatre premiers jours de chaque semaine; et de 2s. 6d.—3fr. 10—le vendredi et le samedi, à l'exception du vendredi, 11 juillet (le jour de la déclaration des récompenses décernées par le jury), où il fut de 10s.—12fr. 50—par personne; enfin du 3 au 15 novembre (inclusivement) le prix d'entrée fut chaque jour d'une demi-couronne—3fr. 10.

Les billets de saison étaient de deux espèces—les billets ordinaires à trois guinées, 78 fr. 75, et les billets spéciaux à cinq guinées, 131 fr. 25: ces derniers donnaient à leurs propriétaires le droit d'assister aux expositions de fleurs, aux fêtes et promenades dont furent le théâtre les jardins de la Société Royale d'Horticulture pendant la durée de l'Exposition; une portion de leur prix était en conséquence attribuée à la Société en considération des privilèges accordés à leurs possesseurs. Au mois de juillet le prix des billets de saison fut réduit de moitié, et d'autres billets, également de saison, mais pour les jours à 1s.—1 fr. 25—seulement, furent délivrés à 10s.—12 fr. 50—chaque. Enfin des billets d'entrée journaliers, en paquets de vingt et un pour 20s.—25 fr.—furent aussi mis à la disposition du public peu après l'ouverture de l'Exposition.

RECETTES.

Les recettes brutes ou nettes provenant de toutes sources furent comme suit :—

	Frs.	Ces.
Billets de saison	1,991,801	55
Par paiement aux portes	8,221,450	50
Marchés avec les entrepreneurs de rafraîchissements	732,131	10
Catalogues officiels	97,977	25
Licences de photographes	48,125	0
Licences de vendeurs de lunettes	6,250	0
Loyer payé par le bureau télégraphique	2,500	0
Produit des cannes et parapluies	52,966	0
Chambres privées	25,000	0
Commission sur les photographes, médailles, etc. vendus dans l'édifice	31,036	85
Divers	6,551	75
Contribution des entrepreneurs de l'édifice, d'après conventions	275,000	0
Total . . .	Frs. 11,420,790	0

Voici maintenant le détail du nombre de billets de saison vendus :—

	Frs.	Cs.
à 5 guinées—131 fr. 25—	5,773 =	757,706 25
à 3 guinées— 78 fr. 75—	17,719 =	1,395,371 25
à 50s. — 62 fr. 50—	26 =	1,625 0
à 30s. — 37 fr. 50—	919 =	34,462 50
à 10s. — 12 fr. 50		
—(pour jours à 1s.)	3,363 =	42,037 50
—1 fr. 25)		
Total .	Frs. 2,231,202	50

Moins 8,672 $\frac{1}{2}$ 5s.—216,806 frs.)	
25—payés à la Société Royale d'Horticulture en vertu de l'arrangement précité, et 903 $\frac{1}{2}$ 15s.	239,400 90
9d.—22,594 frs. 65—pour commission à agents, ensemble .	

Total net . Frs. 1,991,801 60

La somme la plus considérable perçue aux portes en un seul jour fut 2,935 $\frac{1}{2}$ 12s. 4d.—73,390 frs. 40—le lundi, 30 octobre, dernier jour à un shilling; et celle la plus minime perçue aussi en un seul jour fut 241 $\frac{1}{2}$ —6,025 frs.—le samedi, 3 mai, jour auquel le prix d'entrée était de 1 $\frac{1}{2}$ —25 fr.—par personne. La moyenne des recettes journalières aux portes, pendant toute la durée de l'Exposition, à l'exception du premier jour réservé exclusivement aux billets de saison, s'éleva à 1,934 $\frac{1}{2}$ et une fraction—48,350 frs.

Suivent les divers totaux perçus aux portes d'après chaque tarif d'admission :—

	Frs.	Ces.	Frs.	Ces.
Recettes totales de 2 jours à 25			12,650	0
" " 1 " à 12 50			26,310	40
" " 16 " à 6 25			445,585	50
" " 63 " à 3 10			2,401,667	80
" " 88 " à 1 25			5,335,236	75
170			8,221,450	45

Ainsi la moyenne des recettes journalières aux portes fut de 1,114 $\frac{1}{2}$ —27,850 frs.—pour les jours à 6 fr. 25; de 1,525 $\frac{1}{2}$ —38,125 frs.—pour ceux à 3 fr. 10; et de 2,425 $\frac{1}{2}$ —60,625 frs.—pour les jours à un franc vingt-cinq centimes.

NOMBRE DE VISITEURS.

Le nombre total des visiteurs de l'Exposition Internationale de 1862 s'est élevé à près d'un million et quart, le chiffre exact et officiel étant 6,211,103. La moyenne par jour a été de 36,328, et le plus grand nombre de visiteurs en un seul jour fut de 67,891, le jeudi, 30 Octobre (jour à un shilling). Le nombre le plus minime qui ait été admis en un jour fut celui du mercredi, 5 novembre (prix d'entrée, 3 fr. 10); il ne fut que de 5,615; mais comme l'Exposition était virtuellement close alors, il ne serait guère juste de prendre ce chiffre pour le

minimum des visiteurs. Ce minimum se prendrait avec plus de justice en un jour entre le 1er mai et le 1er novembre, tel que le jeudi, 15 mai, jour à cinq shillings—6 fr. 25—d'entrée, où le nombre de visiteurs ne fut que de 7,367.

Quoique les exposants n'eussent point droit à admission gratuite après l'ouverture de l'Exposition, néanmoins toutes facilités d'entrée furent fournies à toutes personnes dont la présence y était réellement nécessaire. Nous donnons ci-après les chiffres totaux d'admissions par billets de saison, passes gratuites, et payement aux portes :—

Billets de saison ordinaires .	770,704
Billets de saison pour jours à un shilling	58,536
Passes gratuites aux exposants, employés, et personnel de la Commission	257,246
Par payement aux portes, billets d'entrée journaliers et billets de retour des Jardins d'Horticulture	5,124,617
	6,211,103

La moyenne par jour des visiteurs admis par billets de saison, et moyennant divers prix d'entrée payés aux portes, fut comme suit :—

	Moyenne de Visiteurs par Jour
Billets de saison	4,507
Do. pour les jours à 1s. = 1fr. 25	829
Entrée à 5s. = 6fr. 25	12,352
Do. à 2s. 6d. = 3fr. 10	19,610
Do. à 1s. = 1fr. 25	14,904

Il résulte d'un compte-rendu officiel montrant le nombre des visiteurs durant les mêmes jours de chaque semaine successive que le total, en gros, fut pour :—

Les lundis de	1,240,615
mardis	1,286,213
mercredis	1,203,658
jeudis	1,270,388
vendredis	641,996
samedis	568,233

Enfin la moyenne par jour des visiteurs fut, pour les Lundis, de 44,307; les mardis, 45,936; les mercredis, 43,988; les jeudis, 44,806; les vendredis, 22,138; et les samedis, 19,594. Cette approximation de la moyenne des quatre premiers jours de la semaine est fort remarquable.

Toutes les personnes entrant chaque jour à l'Exposition avec des passes gratuites, de quelque nature qu'elles fussent, ainsi que tous les détails statistiques relatifs aux visiteurs qui précèdent, sont compris dans le tableau qui se trouvera dans le texte anglais. Le nombre total de ces admissions privilégiées a déjà été donné.

JURY.

Le tableau suivant donne le nombre de Jurés et Jurés-associés siégeant pour chacune des 36 Classes Industrielles.

Classe		Jurés	Jurés Associés
1	Mines, carrières, métallurgie et produits minéraux	16	3
2	Substances et produits chimiques, et procédés de pharmacie	24	3
3	Substances servant à l'alimentation	45	3
4	Substances animales et végétales employées en manufacture	45	6
5	Matériel de chemins de fer, y compris locomotives et voitures	11	—
6	Voitures autres que celles à l'usage des chemins de fer, ou à traction de vapeur, ou à traction de chevaux	6	1
7	Machines et outils de manufactures	15	3
8	Instruments de travail en général	30	2
9	Machines et outils agricoles et d'horticulture	18	1
10	Génie civil, inventions en architecture et constructions	23	2
11	Génie militaire, armure et équipement, artillerie, armes à feu	23	1
12	Constructions navales et agrès de navires	14	3
13	Instruments scientifiques et procédés dépendant de leur usage	13	4
14	Photographie et appareils photographiques	5	2
15	Instruments d'horlogerie . . .	9	—
16	Instruments de musique . . .	11	—
17	Instruments et appareils de chirurgie	7	4
18	Coton	12	2
19	Lin et chanvre	9	—
20	Soie et velours	11	1
21	Étoffes de laine et laines tissées, y compris tissus mélangés	16	8
22	Tapis	6	—
23	Tissus au métier, filés, feutrés, exposés comme spécimens d'impression et de teinture	10	1
24	Tapisserie, dentelle et broderie .	11	1

Classe		Jurés	Jurés Associés
25	Peaux, fourrures, plumes et crin .	11	2
26	Cuir, y compris sellerie et harnais	15	1
27	Articles d'habillement	24	1
28	Papier, papeterie, articles de bureaux et reliure	24	1
29	Ouvrages et objets d'éducation .	21	5
30	Meubles, aménagements, décorations d'appartements, y compris papiers de tenture et articles en papier mâché	19	—
31	Fer et quincaillerie en général .	24	3
32	Acier, coutellerie et outils tranchants	13	—
33	Ouvrages en métaux précieux et leurs imitations, et bijouterie	12	1
34	Verre	13	2
35	Poterie	9	—
36	Nécessaires de toilette, boîtes à dépêches et nécessaires de voyage	7	1
Totaux		582	68

Sont compris dans le tableau ci-dessus 15 Jurés nommés spécialement pour les pompes à incendies dans la Classe 8.

RÉCOMPENSES.

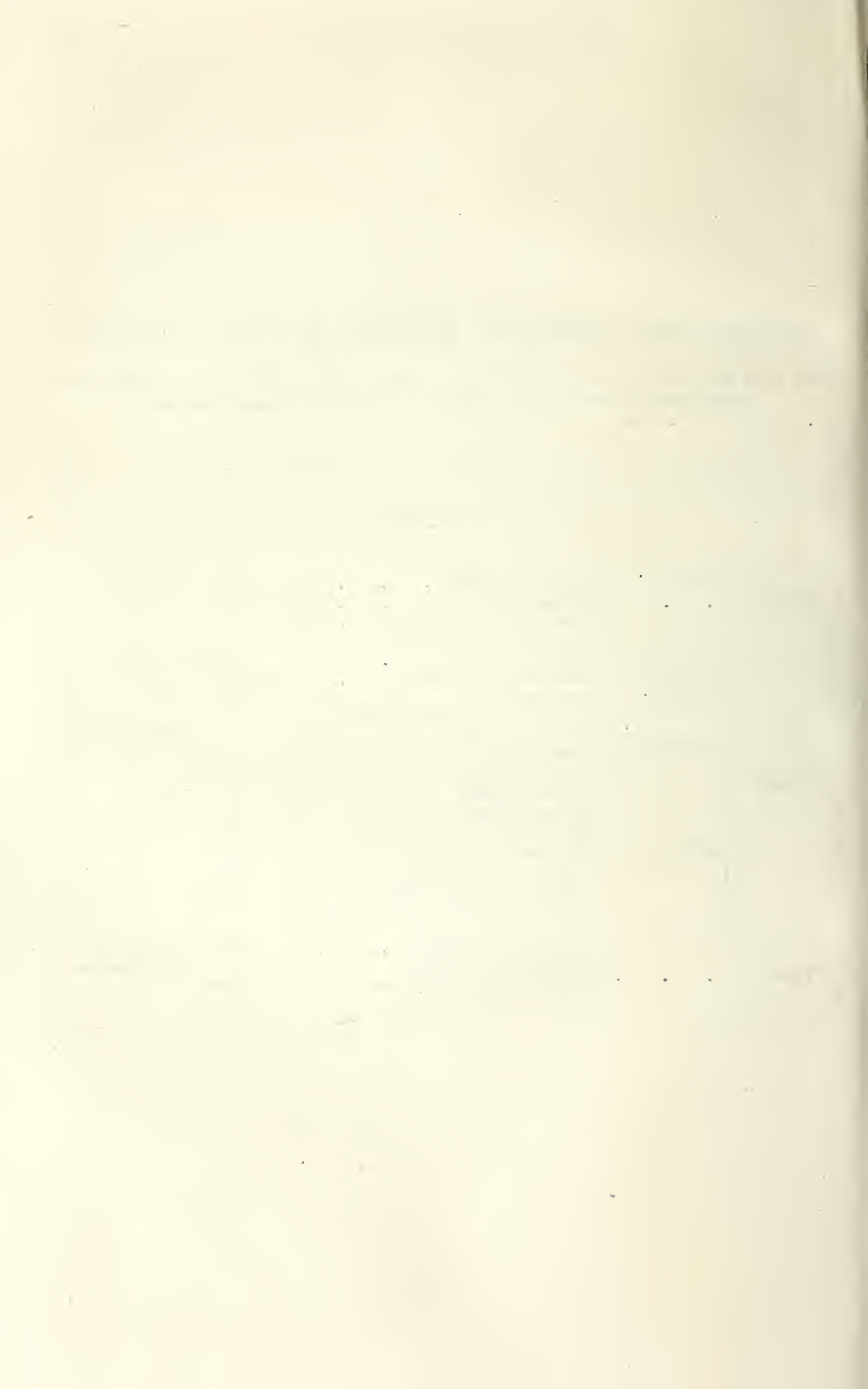
Il n'y eut point de médailles de plusieurs degrés à l'Exposition Internationale de 1862; une seule et unique médaille fut décernée par les jurés, plus des certificats de mention honorable. Le nombre total des médailles décernées fut de 8,141; de mentions honorables, 5,282. Sur ce chiffre de récompenses, 2,382 médailles et 1,697 certificats de mention furent accordés à la Grande-Bretagne et ses colonies, et 5,759 médailles et 3,585 certificats aux pays étrangers.

Aucune récompense ne fut décernée dans les quatre classes des Beaux Arts.

TABLEAU DES MONNAIES, MESURES ET POIDS ANGLAIS,

DONT ON A FAIT USAGE DANS LES NOTES STATISTIQUES SUR L'INDUSTRIE ET LE COMMERCE DU ROYAUME-UNI, CONVERTIS EN MONNAIES, MESURES ET POIDS FRANÇAIS.

		MONNAIES, MESURES ET POIDS	
		D'ANGLETERRE	DE FRANCE
		<i>Unités</i>	<i>Unités</i>
MONNAIES	{	Livre (<i>l.</i>) sterling	25 francs
		Shilling (<i>s.</i>)	1·25 „
		Penny (<i>d.</i>)	0·104 „
MESURES {	de Longueur {	Yard	0·9140 mètres
		Mille (de 1,760 yards)	1609·31 „
	de Surface .	Acre carrée	40·47 ares
		Load ou last de bois de construction de 40 pieds cubes	1·133 stère
	de Solidité .	Load ou last de bois de construction dégrossi de 50 pieds cubes	1·416 „
		Gallon, impérial	4·54 litres
	de Capacité {	Boisseau (8 gallons)	36·34 „
		Quart, de grains (8 boisseaux)	2·91 hectolitres
		Barrique, de bière (36 gallons $\frac{6}{10}$)	1·66 „
		do. de poisson	1·21 „
		Tonne, d'huile de poisson	9·53 „
		do. d'huile de graines	8·94 „
POIDS	{	Once (oz.) avoirdupois	28·34 grammes
		Livre (lb.) de 16 onces	0·454 kilogramme
		Quintal (cwt.) de 112 livres	50·80 „
		Tonne, de 2,240 livres	1016·048 „



INTRODUCTION GÉNÉRALE.

PREMIÈRE PARTIE.—ROYAUME-UNI.

Les résumés statistiques que l'on trouvera plus loin pour le Royaume-Uni ont été dressés d'après le vœu exprimé aux Commissaires de Sa Majesté par la Commission Impériale française pour l'Exposition de 1867, dans une lettre datée du 15 septembre 1866, par laquelle on demande des informations détaillées sous les différents titres de Territoire, Population, Production, Commerce étranger et indigène, Marine marchande, Armée, Marine militaire, Finances, etc. etc.

TERRITOIRE.—Position Géographique—Mers —Montagnes—Fleuves—Surface du Pays —Climat.

(a.) *Position géographique.*—Le Royaume-Uni, qui se compose de l'Angleterre et du pays de Galles, de l'Écosse, de l'Irlande, de l'Île de Man et des îles de la Manche, est situé au nord-ouest du continent européen, entre les 50° et 58° 41' de latitude nord, 1° 46' est, et 10° 26' de longitude ouest.

(b.) *Mers.*—Le Royaume-Uni est borné au nord et à l'ouest par l'Océan Atlantique; au sud, par la Manche; et à l'est par la Mer du Nord. L'Irlande est séparée de la Grande-Bretagne par la Mer d'Irlande. La côte de mer est donc, par rapport à l'étendue du pays, très-considérable.

(c.) *Montagnes.*—Bien que, comparées à celles des États du continent européen, les montagnes du royaume soient beaucoup moins élevées, il y en a cependant plusieurs chaînes dans le pays. Les quatre principales sont, pour l'Angleterre: 1° La Pennine, qui part des monts Cheviots sur les frontières d'Écosse, et vient, en se dirigeant vers le sud, s'arrêter près de Derby; les plus hauts sommets de cette chaîne n'atteignent pas 3,000 pieds. 2° La chaîne Cumbrian, qui est située, en grande partie, dans le Cumberland et le Westmoreland, et où se rencontre quelques-uns des points les plus élevés de l'Angleterre, tels que le mont Helvellyn, haut de 3,055 pieds; ceux de Scafell et de Skiddaw, qui ont respectivement 3,166 et 3,022 pieds de hauteur. 3° La chaîne Cambrian, qui se développe dans presque tout le pays de Galles, et dont le Snowdon, qui en est le mont le plus

élevé, mesure 3,571 pieds. 4° La chaîne Devonian, qui traverse les comtés de Somerset, de Devon et de Cornouailles, et dont les plus hauts sommets ne dépassent pas 1,800 pieds.

En Écosse, la chaîne la plus remarquable est celle des Grampians; le Ben Nevis, qui est à 4,406 pieds au-dessus du niveau de la mer, est le mont le plus élevé de l'Écosse et de la Grande-Bretagne. Les monts Cheviots, situés partie en Écosse et partie en Angleterre, occupent une vaste superficie territoriale.

Les principales montagnes de l'Irlande sont les chaînes du Mourne et de Wicklow; le point le plus élevé du pays est le Carran Tual, qui se trouve dans le comté de Kerry, et qui a 3,414 pieds de hauteur.

(d.) *Fleuves.*—Le fleuve le plus important de l'Angleterre, bien qu'il ne soit pas le plus long, est la Tamise, sur les bords duquel est située la métropole. Il prend sa source dans les monts du Gloucestershire, et est connu sous le nom de 'Isis' jusqu'à son point de jonction avec la 'Thame', où il prend celui de Tamise; il court généralement vers l'est, et se jette dans la Mer du Nord, après avoir parcouru une longueur de 215 milles.

Les autres fleuves importants de l'Angleterre sont: la Severn, qui a 240 milles de longueur, et qui se jette dans le Canal de Bristol; la Trent, la Tyne, la Wear, la Tees, l'Ouse, l'Humber, la Mersey, la Dee, la Wye, la Medway, et l'Avon. Les principaux ports du pays se trouvent, en grande partie, situés sur les rives de ces fleuves: tels que Newcastle et Shields, qui sont sur la Tyne; Hartlepool, Stockton, et Middlesborough sur la Tees; Hull sur l'Humber; Bristol, sur l'Avon; Liverpool, sur la Mersey.

Les principaux fleuves de l'Écosse sont la Tweed, la Forth, la Tay, la Spey, et la Clyde. Leith est situé sur la Forth, Dundee sur la Tay, Greenock et le port de Glasgow sur la Clyde.

Les fleuves les plus remarquables de l'Irlande sont: la Shannon, qui a 150 milles de longueur, la Suir, la Barrow, la Slaney, la Boyne, la Bandon, la Bann et la Liffey.

(e.) *Surface du Pays.*—Peu de contrées offrent une surface plus variée que celle de l'Angleterre; la douceur de son climat et une quantité suffisante de pluies rendent son sol

excessivement fertile, et propre surtout à la culture des céréales et des plantes potagères, ainsi qu'aux pâturages; les deux tiers de la superficie totale du pays étaient mis en culture en 1866. Le pays de Galles et l'Ecosse sont plus montagneux que l'Angleterre; et, en ne comprenant pas les pâturages, environ la moitié seulement de la surface du pays de Galles et un cinquième de celle de l'Ecosse étaient consacrés à la culture pendant l'année dernière. L'Irlande est comparativement un pays plat, et les marais y couvrent une grande étendue; et, bien que son sol, à cause de l'humidité de la température, ne soit pas, au même degré que celui des autres parties du royaume, apte à la production des céréales, elle a cependant une superficie considérable de terrains à fourrages et de pâturages. Ces derniers, y compris les collines en pâturages, occupaient en 1866 la moitié environ de la surface totale du pays.

(f.) *Climat.*—Bien que, dans certaines limites, il soit plus humide et plus variable, le climat de l'Angleterre est plus égal et plus doux que celui de toute autre contrée placée à la même distance de l'équateur. Par suite de la position géographique de l'Angleterre, son

climat est influencé au sud-ouest et à l'ouest par les vents chauds de l'Atlantique, par les courants provenant des immenses champs de glaces du Nord, et, d'un côté par les vapeurs qui s'échappent de l'Atlantique et de l'autre par l'air comparativement sec du continent. Ces causes et d'autres encore suffisent pour expliquer les changements de la température.

En Ecosse, la température est plus froide qu'en Angleterre; mais à cause des nombreuses baies et embouchures de rivières qui pénètrent la côte, les extrêmes ne sont pas aussi grands qu'on pourrait le supposer d'après la position septentrionale du pays.

Le climat de l'Irlande est plus doux et plus humide que celui de l'Angleterre et de l'Ecosse, et plus propice pour les pâturages que pour la culture des grains. Les plantes qui, en Angleterre, réclament une chaleur artificielle, croissent et se développent au grand air en Irlande.

Le tableau suivant, établi d'après des relevés du Professeur Airy, l'astronome royal, indique, pour les vingt-cinq dernières années, les *extrêmes* de la température et de la pluie tombée, dans les trois grandes divisions du Royaume-Uni:—

Température annuelle et Quantité de Pluie tombée (autant qu'on a pu constater) pendant les Vingt-cinq Années comprises entre 1841 et 1865.

Stations	Latitude (Nord)	Longitude (Ouest)	Hauteur de la Station au-dessus du Niveau de la Mer	Moyenne annuelle de la Température		Moyenne annuelle de la Pluie tombée	
				La plus élevée	La plus basse	La plus élevée	La plus basse
En Angleterre et le pays de Galles :							
Bedford	52 8	0 28	Pieds 100	52.2	47.8	Pouces 32.6	Pouces 16.8
Clifton, près Bristol	51 28	2 38	228	50.2	46.5	40.8	23.7
Greenwich	51 28	0 0	159	51.3	47.0	34.2	16.9
Guernsey	49 33	2 40	204	52.1	47.8	49.1	25.6
Helston	50 7	5 18	166	53.9	48.8	46.6	28.6
Lampeter	52 7	4 5	420	50.1	46.0	55.3	32.2
Newport	50 42	1 17	20	51.4	47.7	47.6	20.5
Nottingham	52 57	1 10	174	59.9	46.3	36.5	17.5
Oldham			500	—	—	44.1	18.7
Oxford	51 46	1 16	234	50.6	46.2	35.4	14.9
Seathwaite (Borrowdale)	—	—	368	48.9	46.6	182.6	117.5
Whitehaven	—	—	90	50.9	48.7	56.0	34.7
En Écosse :							
Aberdeen	57 9	2 5	90	—	—	43.8	16.5
Applegarth	—	—	180	—	—	42.5	25.6
Carbeth	56 0	4 22	505	—	—	51.5	30.5
Doune	—	—	—	—	—	54.4	28.7
Dumfries	55 4	3 36	61	52.9	50.0	46.9	27.8
Édimbourg	55 58	3 8	{ 307 *372 110 *166 }	51.3	47.9	23.7	14.4
Glasgow	55 53	4 17	{ 110 *166 }	52.6	49.9	37.2	22.3
Glengyle (Lac Katrine)	—	—	380	—	—	112.5	65.5
Haddington	—	—	—	—	—	29.8	17.3
Tête de la Vallée de Duchray (Ben Lomond)	—	—	1,800	—	—	117.0	67.2
Inveresk	55 56	3 3	90	48.6	44.8	39.9	21.4
Sandwick (Orkney)	—	—	100	48.4	45.1	44.4	27.4
En Irlande :							
Armagh	54 21	6 39	211	—	—	43.2	30.5
Belfast	54 35	5 56	27	52.5	50.4	39.2	24.3
Dublin†	53 22	6 21	150	50.3	47.0	38.5	21.5
Enniskillen	54 20	7 34	246	52.0	50.5	49.6	29.4
Limerick	52 39	8 38	160	51.1	49.0	48.2	30.8

* Hauteur de la jauge pluviale.

† L'échelle de la température, pour 1853-65, et celle de la pluie tombée, pour 1853-60, ont été dressées d'après les relevés fournis par le Capt. Wilkinson, R.E., Dublin.

ADMINISTRATION.—(a.) *Administration générale.*—En Angleterre le gouvernement est ce que l'on appelle généralement de 'forme mixte,' le pouvoir législatif étant séparé du pouvoir exécutif. Ce dernier appartient exclusivement au roi ou à la reine, qui représente aussi la nation dans toutes les transactions et tous les traités internationaux; tandis que le pouvoir législatif est dévolu au grand conseil national, que l'on nomme Parlement, et qui se compose des trois corps politiques du royaume, c'est-à-dire de la reine, des lords spirituels et temporels, et de la Chambre des Communes. La reine est investie du pouvoir souverain; toutes les lois sont censé émaner d'elle, mais doivent avoir obtenu l'assentiment préalable des deux chambres; ses fonctions sont héréditaires. Les lords spirituels et temporels sont les prélats et les pairs du royaume. La Chambre des Communes se compose de représentants choisis par le peuple, partie pour les comtés, et partie pour les cités et bourgs; ils sont élus au commencement de chaque parlement, et conservent leur siège pendant toute sa durée.

Les lords composent une des deux chambres, et ils siègent en personne; les membres des Communes forment l'autre et siègent également en personne. La reine a son siège dans la Chambre des Lords, mais elle ne l'occupe que dans les circonstances solennelles, comme lorsqu'elle ouvre une session ou donne son assentiment aux *bills* qui ont passé par les deux chambres. Elle ne peut, d'après les traditions constitutionnelles, être présente à aucune des délibérations, et elle est même censé ignorer ce qui se passe, soit à la Chambre des Lords, soit à celle des Communes, jusqu'à ce qu'elle en reçoive la communication officielle. Aucune loi ne peut être passée ni aucune taxe imposée sans le consentement du parlement, c'est-à-dire de la reine et des deux Chambres des Lords et des Communes; et ce consentement doit être donné par chacun de ces pouvoirs séparément. Toutefois la reine n'a que le droit de veto, et aucune mesure ne peut émaner de son autorité si ce n'est lorsqu'il s'agit d'user de son droit de grâce. Les deux chambres ont le pouvoir de prendre l'initiative de toutes les lois indistinctement, à l'exception de celles qui intéresseraient les droits de la pairie, ou qui auraient pour objet l'allocation de subsides; l'initiative des premières appartient en effet à la Chambre des lords, et celle des secondes à la Chambre des Communes. Dans aucun de ces cas le *bill* présenté dans l'une des chambres ne saurait subir ou recevoir de modifications dans l'autre. La reine convoque le parlement et elle le proroge ou le dissout lorsqu'elle le juge à propos. Elle est cependant obligée de le convoquer '*une fois au moins par an, et plus souvent si c'est nécessaire.*'

La prorogation est l'ajournement du Parlement d'une session à l'autre; la dissolution est sa mort naturelle, qui a lieu à l'expiration de sept années depuis le commencement, à moins qu'il n'ait été dissous auparavant par procla-

mation royale. Toutes les fonctions dans l'ordre administratif et exécutif du gouvernement sont remplies au nom de la reine. En se servant, à cette fin, des tribunaux et des autres rouages judiciaires, la reine préside à l'administration de la justice, et veille à ce que les lois soient dûment exécutées.

Toutes les cours de justice, et tous les fonctionnaires tels que juges, shérifs, juges de paix, constables, etc., qui y sont attachés, tiennent leur mandat directement de la souveraine. Il rentre dans les devoirs et les attributions de la reine de réprimer les désordres et de maintenir la tranquillité dans tout le royaume; en conséquence toute violation de la paix publique est qualifiée de '*breach of the Queen's peace.*' En ce qui concerne la politique extérieure, la reine a le droit de faire la guerre ou la paix, de négocier des traités, de nommer des ambassadeurs et de recevoir ceux des puissances étrangères. Pour faire face à ces nombreuses charges, la reine dispose entièrement des forces tant civiles que militaires de la nation. Les officiers des deux ordres civils et militaires tiennent leur nomination de la reine, et leur traitement des Chambres. Dans l'exercice des prérogatives de la couronne, telles que la Constitution les détermine, la reine n'est responsable à qui que ce soit, et même si un acte accompli par ses ordres sortait de la limite de ses pouvoirs elle serait exempte de la responsabilité *personnelle*. De là vient que la reine, dans tous les actes publics, se sert d'agents qui ne peuvent pas invoquer les mêmes immunités, et laisse la conduite des affaires de l'état à ses ministres, dont un certain nombre forment ce que l'on appelle le conseil du cabinet. L'action du pouvoir exécutif est aussi nécessairement renfermée dans des limites nettement définies relativement au budget; en effet, comme les revenus ordinaires de la couronne ne sont plus en rapport avec les besoins de l'état, un appel fréquent à la Chambre des Communes est devenu nécessaire. Les mesures proposées par les ministres pour cet objet sont d'ordinaire discutées, et la chambre peut, ou bien leur refuser le crédit qu'ils demandent, ou bien le leur accorder sous certaines conditions. Il est cependant évident que le droit d'opposer un refus absolu ne peut être exercé avec fruit que lorsque les demandes n'intéressent pas essentiellement la chose publique; ainsi il serait très déplacé pour la Chambre des Communes de chercher à paralyser l'action des ministres de la couronne en refusant de servir l'intérêt de la dette nationale ou de maintenir les administrations civiles et militaires de l'Empire Britannique.

(b.) *Administration locale.*—En ce qui concerne l'administration locale, le pays est divisé civilement en comtés, cités, bourgs et paroisses. Les affaires civiles et judiciaires du comté sont conduites par le haut-shérif, le *coroner* et les juges de paix. Le gouvernement militaire est confié au lord lieutenant, qui est assisté par des lieutenants délégués (*deputy lieutenants*).

Le lord lieutenant a le commandement de la milice, et est souvent le *custos rotularum* ou le conservateur des archives du comté. Les principales fonctions de l'administration locale consistent dans le maintien de l'ordre et de la tranquillité; dans le service des pauvres et de la police; et dans la construction et l'entretien des routes, rues, ponts, &c. &c. Les fonds affectés à ces divers objets sont prélevés par contributions sur la propriété foncière du comté.

L'administration des cités municipales et des bourgs est conférée aux maires et aux corporations, et celle des paroisses à divers fonctionnaires de la commune. Dans beaucoup de villes peuplées non incorporées, des commissaires et des conseils, tels que conseils de salubrité, commissaires des améliorations (improvements), &c. &c., sont élus par les contribuables, sous l'autorité du parlement, à l'effet de présider à l'exécution des travaux utiles, et d'administrer les affaires de la localité.

(c.) *Établissements religieux.*—L'église établie d'Angleterre est protestante épiscopale, mais toutes les religions sont tolérées. L'administration de la religion de l'état est confiée aux membres du clergé, qui forment une catégorie à part et constituent ce que l'on est convenu d'appeler l'Église Anglicane; ils sont soutenus par les revenus de terres, par les dîmes, les taxes pour l'entretien des églises, les droits de chaises, les offrandes, le casuel, &c. &c. L'Angleterre et le pays de Galles sont ecclésiastiquement divisés en provinces ou archevêchés, en évêchés ou diocèses, archidiaconés, diocèses, doyennés et paroisses; chacune de ces divisions a ses fonctionnaires propres, sous l'autorité desquels sont placés ceux des divisions inférieures, et tous sont subordonnés à la reine en sa qualité de Chef de l'Église. Il y a deux archevêques, celui de Canterbury et celui d'York, et vingt-cinq évêques sous leurs ordres. Pour la conduite des affaires ecclésiastiques les provinces ont chacune un conseil ou *assemblée* (*convocation*), composée des évêques, des archidiaconés et des doyens en personne, ainsi que d'un certain nombre de *proctors*, agissant comme mandataires du petit clergé. Ces conseils sont convoqués par les archevêques respectifs en vertu d'une décision de la reine. Les sectes dissidentes administrent leurs affaires elles-mêmes. L'église d'Écosse est gouvernée par une assemblée générale, qui se réunit tous les ans; un représentant de la souveraine, portant le titre de 'Lord High Commissioner' (le lord haut-commissaire), assiste à l'assemblée. L'église d'Irlande, comme celle d'Angleterre, est protestante épiscopale, et est administrée de la même manière. La masse de la population Irlandaise (les quatre cinquièmes, environ) professent toutefois la religion catholique Romaine.

(d.) *Principales Villes.*—Les villes et cités les plus importantes de l'Angleterre sont Londres, Liverpool, Manchester et Salford, Birmingham, Leeds, Sheffield, Bristol, Wolver-

hampton, Newcastle-sur-Tyne, Stoke-sur-Trent, et Hull. La population de chacune de ces villes excède 100,000 âmes. Il y avait en Angleterre et le pays de Galles, lors du recensement de 1861, 72 villes ayant chacune plus de 20,000 habitants. Les principales villes de l'Écosse sont Edimbourg, Glasgow, Dundee, Aberdeen, Paisley, Greenock, Leith et Perth; et de l'Irlande, Dublin, Belfast, Cork, Limerick, Waterford et Londonderry. La population des trois capitales était, en 1861; à Londres de 2,803,989 habitants; à Edimbourg de 170,444, et à Dublin de 314,409.

SUPERFICIE.—Superficie totale — Ligne côtière—Ports.

(a.) *Superficie totale.*—La surface totale du Royaume-Uni est de 121,115 milles carrés, ou 77,513,000 acres, répartis comme suit :—

Divisions, etc.	Superficie		Étendue du Terrain couvert par les récoltes et l'herbe, en jachère et en friche (d'après les relevés de 1861)
	En Milles carrés	En Acres	
Angleterre . . .	50,923	32,590,000	22,262,000
Pays de Galles . .	7,398	4,735,000	2,284,000
Angleterre et Pays de Galles }	58,321	37,325,000	24,546,000
Écosse . . .	30,685	19,639,000	4,158,000
Irlande . . .	31,755	20,322,000	15,550,000
Iles des Mers Britanniques }	354	227,000	115,000
Total, Royaume-Uni }	121,115	77,513,000	44,369,000*

* Dans les chiffres afférents à l'Irlande figurent les pâturages, ce qui peut faire paraître la superficie des terres cultivées de cette division relativement plus grande que celles des autres divisions du Royaume qui ne comprennent pas les pâturages.

(b.) *Ligne côtière.*—L'étendue de la ligne côtière de l'Angleterre et du pays de Galles est estimée à 2,000 milles, environ, et celle de l'Écosse à 2,500. Les côtes d'Irlande atteignent un développement de 750 milles, et sont en grande partie profondément dentelées par des bras de mer, surtout à l'ouest et au sud-ouest.

(c.) *Ports.*—Les meilleurs ports, tant de la Grande-Bretagne que de l'Irlande, sont situés sur les côtes du sud et du sud-ouest; ceux de l'est offrent bien moins de commodités aux navires.

Les plus vastes ports du Royaume-Uni sont ceux de Portsmouth, du Plymouth, de Milford et de Cork, qui ont peu ou peut-être point d'égaux dans le monde entier; leurs eaux sont très-profondes, et ils peuvent offrir un refuge à la plus grande flotte qui existe. Les ports de Holyhead et de Douvres, en cours d'achèvement, procureront aussi à la navigation un abri

important. Des sommes d'argent considérables ont été affectées aux travaux des différents ports du royaume. Londres occupe le premier rang comme port de fleuve dans la Grande-Bretagne. La Mersey est la seconde rivière commerciale du pays. Newcastle, Hull, Bristol, Greenock, Sunderland, Leith, Dundee, Aberdeen, Port Patrick, Kingstown et beaucoup d'autres ports encore peuvent recevoir des navires d'une grande capacité; et, sur tous les points du royaume, bien des ports d'une importance secondaire admettent dans leurs eaux des cabotiers, ce qui facilite considérablement le commerce intérieur du pays.

MOYENS DE COMMUNICATION. — Rivières—Canaux—Routes—Lacs—Chemins de Fer—Télégraphes Électriques.

(a.) *Fleuves et Rivières, Canaux, Routes et Lacs.*—Indépendamment des fleuves et rivières navigables, qui représentent une longueur de 2,500 milles, il y a en Angleterre et dans le pays de Galles environ 2,800 milles de canaux, 24,000 milles de grandes routes, et 100,000 milles de chemins vicinaux. Presque toutes les grandes villes, les ports de mer et les centres manufacturiers sont reliés entre eux par des cours d'eau aussi bien que par des voies de communication terrestres. Les principaux canaux de l'Écosse sont : le grand canal qui joint le Forth à la Clyde, les canaux de l'Union, de Crinan, et le Canal calédonien. Ce dernier, en réunissant un certain nombre de lacs, forme une voie de communication complète par le centre du pays. On estime à 3,700 milles la longueur des routes. Il y a, en Irlande, environ 210 milles de rivières navigables, et 300 milles de canaux. On n'a aucune information en ce qui concerne le développement actuel des routes en Irlande.

L'Angleterre a très-peu de lacs, et aucun de quelque étendue. Ceux qu'elle possède sont principalement situés dans le Westmoreland et

le Cumberland; le plus grand (celui de Windermere) a environ 12 milles de longueur sur un de largeur. Les lacs les plus remarquables de l'Écosse sont : le lac Lomond, entre les comtés de Dumbarton et de Stirling; le lac Ness, dans l'Inverness-shire; le lac Awe, dans l'Argyleshire; et les lacs Tay, Rannock et Erich, dans le Perthshire. Le lac le plus important de l'Irlande est le Lough Neagh, dans l'Ulster, qui a 98,000 acres de superficie. Les lacs Erne, Corrib, Mask, Conn et Killarney méritent également une mention spéciale.

(b.) *Chemins de Fer.*—Le système des chemins de fer dans le Royaume-Uni a pris un développement très-rapide pendant ces quinze dernières années; et, outre les nombreux moyens de communication qu'offrent les fleuves, les canaux et les routes, il y a actuellement 13,289 milles de lignes de chemins de fer qui, on peut le dire, forment un réseau continu qui relie entre eux chaque ville et chaque district du pays.

L'étendue des lignes de chemins de fer ouvertes au trafic dans chacune des divisions du royaume était, au 31 décembre 1865 :—

	Lignes doubles	Lignes simples	Total
	Milles	Milles	Milles
En Angleterre et le pays de Galles	6,081	3,170	9,251
Écosse	946	1,254	2,200
Irlande	476	1,362	1,838
Royaume-Uni	7,503	5,786	13,289

Le montant total du capital versé sur actions, emprunts, etc., des chemins du Royaume-Uni était, au 31 décembre 1865, de 455,478,000*l*.

Le nombre total des voyageurs transportés pendant les années 1864 et 1865, ainsi que celui des chevaux et des chiens, a été, pour chacune des divisions du royaume, savoir :—

	Années	En Angleterre et le Pays de Galles	En Écosse	En Irlande	Dans le Royaume-Uni
Voyageurs :		No.	No.	No.	No.
De 1ères classes	{ 1864 23,467,020	2,691,301	1,543,094	27,701,415	
	{ 1865 25,053,443	2,840,446	1,769,316	29,663,205	
De 2èmes classes	{ 1864 59,681,016	1,998,949	3,589,204	65,269,169	
	{ 1865 64,520,007	2,349,500	3,913,734	70,783,241	
De 3èmes classes (y compris les voya- geurs parlementaires (*Parliamentary passengers)	{ 1864 114,016,625	15,515,205	6,769,751	136,301,581	
	{ 1865 127,120,088	16,805,582	7,490,599	151,416,269	
Total	{ 1864 197,164,661	20,205,455	11,902,049	229,272,165	
	{ 1865 216,693,538	21,995,528	13,173,649	251,862,715	
Porteurs de billets de saison . . .	{ 1864 51,914	15,403	9,182	76,499	
	{ 1865 63,997	20,744	12,406	97,147	
Nombre de voitures transportées . .	{ 1864 54,030	8,619	4,053	66,702	
	{ 1865 52,286	3,809	3,204	59,299	
„ „ chevaux „	{ 1864 230,368	28,419	24,325	283,112	
	{ 1865 210,203	17,478	26,869	254,550	
„ „ chiens „	{ 1864 354,019	68,880	36,695	459,594	
	{ 1865 312,166	47,709	36,222	396,097	

* Les passagers parlementaires sont transportés à un taux qui n'excède pas un penny par mille. Tous les jours de l'année, un train spécialement destiné à conduire cette classe de voyageurs parcourt dans son entier chaque ligne de chemin de fer et s'arrête à toutes les stations.

La table ci-après indique la moyenne des prix qu'ont fait payer les principales compa-

gnies de chemins de fer du royaume pendant l'année 1865 :—

Divisions et Chemins de Fer	Moyenne des Prix ordinaires			Prix des Express		Divisions et Chemins de Fer	Moyenne des Prix ordinaires			Prix des Express	
	1 ^e Classe	2 ^e Classe	3 ^e Classe	1 ^e Classe	2 ^e Classe		1 ^e Classe	2 ^e Classe	3 ^e Classe	1 ^e Classe	2 ^e Classe
En Angleterre et dans le pays de Galles :	Par mille	Par mille	Par mille	Par mille	Par mille	En Écosse :	Par mille	Par mille	Par mille	Par mille	Par mille
Grande Ligne de l'Est . . .	d. 2.57	d. 1.97	d. 1.00	d. 2.87	d. 2.00	Chemin de fer Calédonien . . .	d. 1.21	d. 1.36	d. 0.66	d. —	d. —
„ „ du Nord . . .	2.35	1.61	0.98	—	—	„ de fer de Glasgow et du Sud-Ouest . . .	1.25	1.41	0.93	—	—
„ „ de l'Ouest . . .	2.73	1.86	0.96	2.38	1.74	Grand-Nord Écossais . . .	1.64	—	0.97	—	—
Lancashire et Yorkshire . . .	1.38	1.16	0.60	—	—	Britannique-Nord . . .	1.84	1.52	0.91	—	—
Londres et Blackwall . . .	2.35	1.57	0.96	—	—	Nord-Est Écossais . . .	2.15	1.45	0.99	—	—
„ Nord-Ouest . . .	1.95	1.44	0.95	2.50	1.96						
„ Sud-Ouest . . .	2.31	1.70	0.98	2.69	1.95						
„ Brighton et Côte du Sud . . .	1.92	1.43	0.90	2.59	2.10						
„ Chatm. et Douvres . . .	2.44	1.66	0.95	3.01	2.03	En Irlande :					
Manchester, Sheffield et Lincoln . . .	2.43	1.74	0.97	—	—	Ligne de Belfast et Comtés du Nord . . .	1.94	1.40	0.90	—	—
Ligne du Centre . . .	2.39	1.71	0.97	—	—	Ligne de Dublin, Wicklow et Wexford . . .	2.05	1.51	0.97	—	—
„ Nord-Est . . .	2.10	1.50	0.85	—	—	Grand Sud et Ouest . . .	1.94	1.49	0.91	—	—
„ Nord de Londres . . .	1.53	1.03	1.00	—	—	Ulster . . .	1.99	1.49	0.95	—	—
„ Sud-Est . . .	1.96	1.39	0.83	2.34	1.70	Waterford et Limerick . . .	2.07	1.53	0.93	—	—

* Y compris les voyageurs des trains parlementaires.

(c.) *Télégraphes électriques*.—La statistique des télégraphes publics présente, d'après les relevés adressés, en 1865, au Board of Trade,

par les compagnies respectives, les résultats suivants :—

Noms des Compagnies télégraphiques	Longueur des Lignes télégraphiques	Longueur des Fils employés	Nombre de Stations ouvertes au Public	Nombre d'Appareils	Nombre de Dépêches
	Milles	Milles			
Électrique et International . . .	9,306	45,044	1,022	5,778	n'ont pas été constatées 1,251,265 88,711 66,523 316,272 743,870
Magnétique Britannique et Irlandais* . . .	4,401	18,668	491	inconnu	
Du Chemin de fer du Sud-Est† . . .	323½	3,064½	104	159	
Du Chemin de fer de Londres, Brighton et la Côte du Sud . . .	240¾	688	57	92	
District de Londres‡ . . .	123	470	83	195	
Du Royaume-Uni . . .	1,672	9,506	125	358	
Total . . .	16,066½	77,440½	1,882	—	
Sous-Marin § . . .	887 (en 1863)	—	—	—	

* Les dépêches continentales reçues et transmises conjointement par cette compagnie et celle du Télégraphe Sous-Marin, ainsi que les dépêches des compagnies de chemins de fer, de la presse, et des cabinets de lecture, ne sont pas comprises dans le chiffre des messages du public ; on estime leur nombre à 250,000 environ, par an.

† La compagnie du chemin de fer du Sud-Est n'a passé de conventions spéciales avec aucune des compagnies de Télégraphe Électrique.

‡ Non compris les télégraphes privés que cette compagnie entretient pour le compte des maisons de commerce ou des personnes ayant deux sièges d'affaires, et le système télégraphique de la 'London Fire Brigade' (Brigade des Sapeurs-pompiers).

§ Ligne de Calais, 24 milles ; de Boulogne, 25 milles ; de Dieppe, 78 milles ; de Jersey, 30 milles ; d'Ostende, 70 milles ; de Hanovre, 280 milles ; et du Danemark, 380 milles.

Outre les lignes qui précèdent, il y a encore les deux câbles de la Compagnie du Télégraphe Atlantique, entre l'Irlande et St. Jean de Terre-Neuve. La longueur du câble noyé pour la ligne de 1865 était de 2,300 milles nautiques, et, en 1866, la pose du nouveau câble et la réparation des dommages éprouvés par celui de l'année précédente n'ont pas employé moins de 2,730 milles marins de câble.

POPULATION.—Nationalités—Religions—Occupations—Des Principales Villes—Augmentation depuis 1855—Émigration—Aveugles—Sourds—Muets—Naissances—Décès—Mariages—Indigents—Délits.

(a.) *Population*.—La population totale du Royaume-Uni était, lors du recensement de 1861, en chiffres ronds, de 29,070,000 âmes, ainsi réparties :—

Divisions	Population (non compris les Marins et Militaires hors du Royaume)			Soldats, Marins et Matelots qui se trouvaient hors du Royaume
	Sexe masculin	Sexe féminin	Total	
En Angleterre	9,224,000	9,730,000	18,954,000	162,273
Galles (pays de)	552,000	560,000	1,112,000	
Écosse	1,450,000	1,612,000	3,062,000	34,514
Irlande	2,837,000	2,962,000	5,799,000	51,342
Îles de la Manche et autres	66,000	77,000	143,000	2,227
Royaume-Uni	14,129,000	14,941,000	29,070,000	250,356

Le chiffre proportionnel de la population de chacune des quatre divisions du royaume était donc, par rapport à l'ensemble :— En Angleterre et le pays de Galles, de 69·1 ; en Écosse, de 10·5 ; en Irlande, de 19·9 ; et dans les Îles de 5 ; ou bien, en divisant le chiffre total de la population en dix parties, sept environ sont applicables à l'Angleterre et le pays de Galles, deux à l'Irlande, une à l'Écosse et $\frac{1}{20}$ aux Îles de la Manche.

Le royaume comptait, en 1861, 14,379,000 personnes du sexe masculin (y compris les militaires, marins, etc., hors du territoire), et 14,941,000 du sexe féminin. On estime que la population du Royaume-Uni atteignait, vers

le milieu de l'année 1866, le chiffre de 30,329,207 (en comprenant les militaires et marins en service hors du pays).

Le chiffre moyen de la population par mille carré était, en 1861, savoir :—

En Angleterre	372·2
Dans le pays de Galles	150·3
En Écosse	99·7
„ Irlande	182·6
Dans les Îles	403·9
Royaume-Uni	240·0

(b.) *Nationalités.*— La nationalité de la population, dans les différentes divisions, était à la même date :—

Nationalités	En Angleterre et le Pays de Galles	En Écosse	En Irlande	Dans les Îles des Mers Britanniques
Anglais	17,985,617	54,920	50,936	19,525
Gallois	1,134,435	1,112		290
Écossais	169,202	2,785,804	16,925	1,235
Irlandais	601,634	204,083	5,720,686	5,534
Nés dans les îles des mers britanniques	18,423	628	10,420	111,354
„ „ les colonies et les Indes orientales	51,572	7,559		1,262
„ „ les pays étrangers	101,832*	8,188†		4,184‡
„ en mer	3,509			63
Total	20,066,224	3,062,294	5,798,967	143,447

* Y compris 84,090
† „ 3,969
‡ „ 3,923 } personnes qui étaient de nationalités étrangères.

(c.) *Religions.*— Il n'y a point de relevés statistiques sur le nombre de personnes appartenant à chacune des communions qui existent dans la Grande-Bretagne. Le nombre, en ce qui concerne les diverses sectes de l'Irlande, était, en 1861 :—

	Personnes
Appartenant à l'Église établie	693,357
Presbytériens	523,291
Méthodistes	45,399
Indépendants	4,532
Baptistes	4,237
Quakers	3,695
Autres croyances	14,695
Total des Protestants	1,289,206
Catholiques Romains	4,505,265
Juifs	393
Non dénommés	4,103
Total	5,798,967

(d.) *Occupations.*— En comparant les occupations du peuple de la Grande-Bretagne, en

1851 (époque à laquelle apparurent les premières statistiques sur lesquelles on put se baser), avec les relevés analogues publiés en 1861, on constate, dans les trois grandes divisions des emplois, les changements ci-après.

1° La moyenne proportionnelle de la population attachée aux travaux de l'agriculture est tombée de 12 à 10%.

2° Celle des occupations commerciales s'est élevée de 21 à 27 pour %.

3° Et celle de tous les autres emplois est descendue de 67 à 63 p. %.

Ces faits ressortiront peut-être plus clairement de l'exposé suivant :—

	Attachés aux Travaux agricoles	Occupations commerciales	Autres Emplois
En 1851	12	21	67
En 1861	10	27	63

On rencontre de grandes difficultés à établir des relevés exacts concernant les occupations du peuple ; et, bien qu'on en ait surmonté beaucoup lors du recensement de 1861, les résultats obtenus furent cependant considérés

comme laissant à désirer sous bien des rapports ; toutefois, les six grandes divisions d'emplois qui figurent dans le recensement se rapprochent beaucoup de la vérité. Ainsi, en Angleterre et le Pays de Galles, sur une population de 20,066,224 âmes, les relevés d'occupations qu'on a obtenus s'appliquaient à 19,915,334 individus. En Écosse, ces relevés furent complets, et en Irlande on a pu constater, sur un chiffre total de 5,798,967, les occupations de 5,416,806 personnes.

La table ci-dessous indique quelles étaient, en 1861, pour le Royaume-Uni, les proportions de la population dans les six classes d'occupations :—

Classes d'Occupations	Proportions par rapport à 100		
	Angleterre et le Pays de Galles	Écosse	Irlande
(1) Professionnelles	2.4	1.7	1.8
(2) Domestiques .	57.4	57.0	56.8
(3) Commerciales .	3.1	2.8	2.2
(4) Agricoles . .	10.1	12.5	18.3
(5) Industrielles	24.3	22.8	12.3
(6) Non définies et d'aucun rapport .	2.7	3.2	8.6
	100.0	100.0	100.0

- (1) Y compris les personnes employées par le Gouvernement ou à la défense du pays, et dans les arts, sciences, etc.
- (2) On comprend dans cette classe toutes les personnes ayant des devoirs de famille à remplir ; épouses, mères, veuves, enfants et autres, les écoliers, les personnes louant des logements garnis, les domestiques, etc.
- (3) Comprenant les personnes occupées dans les opérations commerciales, tous les négociants et marchands en général, les entrepreneurs de transports par eau et par terre, les individus employés dans les magasins, les messagers et les porteurs.
- (4) Comprenant toutes les personnes attachées aux travaux de l'agriculture, de l'arboriculture, de l'horticulture, et à l'élevage des bestiaux.
- (5) Les personnes employées dans les manufactures de toutes sortes, non autrement désignées.
- (6) Dans cette classe sont compris les manœuvres, les propriétaires et personnages n'ayant pas d'emploi spécial. Les personnes n'ayant point d'occupation déterminée, et qui sont entretenues aux frais de l'État, telles que pensionnaires, indigents, les aliénés, les prisonniers, les vagabonds, etc., et tous ceux qui n'ont pas de métier fixe.

Le tableau ci-après contient le nombre total de personnes des deux sexes employées comme domestiques, et celles occupées aux travaux de l'agriculture et de l'industrie dans chaque division du Royaume-Uni, en 1861. Les chiffres des occupations agricoles et industrielles comprennent toutes les personnes liées à l'agriculture ou à chaque branche de commerce, c'est à dire les fermiers, les manufacturiers, les marchands, les ouvriers, les artisans, etc. etc. (*Voyez le tableau, p. 145.*)

(e.) *Population des principales Villes.*—La table ci-après contient, pour les années 1851 et 1861, le chiffre réel de la population des

principales villes de chacune des grandes divisions du royaume, ainsi que le nombre *approximatif* des habitants pour l'année 1866 :—

Cités, Villes, etc.	Chiffre de la Population		Chiffre approximatif des Habitants vers le milieu de l'année 1866
	En 1851	En 1861	
En Angleterre :			
Londres (métropole)	2,362,236	2,803,989	3,037,991
Liverpool (bourg)	375,955	443,938	484,337
Manchester (cité)	303,382	338,722	358,855
Salford (bourg)	85,108	102,449	112,904
Birmingham (bourg)	232,841	296,076	335,798
Leeds (bourg)	172,270	207,165	228,187
Sheffield (bourg)	135,310	185,172	218,257
Bristol (cité)	137,328	154,093	163,680
Newcastle-sur-Tyne (bourg) }	87,784	109,108	122,277
Hull (bourg)	84,690	97,661	105,233
En Écosse :			
Édimbourg (cité)	161,648	170,444	175,128
Glasgow (cité)	329,097	395,503	432,265
Dundee	80,027	91,664	—
Aberdeen	71,973	73,900	—
Paisley	48,071	47,427	—
Greenock	37,436	43,894	—
Leith	32,219	36,029	—
Perth	24,670	26,094	—
En Irlande :			
Dublin (cité)	—	314,409	318,437
Belfast	—	123,479	—
Cork	—	93,389	—
Limerick	—	50,068	—
Waterford	—	30,570	—
Londonderry	—	20,366	—

Nota.—En 1861, il y avait en Angleterre et dans le pays de Galles soixante-douze villes, qui comprenaient chacune plus de 20,000 âmes.

Le relevés ci-dessous montrent, pour quelques-unes des principales villes, l'augmentation qui s'est manifestée dans le chiffre de la population entre les années 1855 et 1865 :—

	Évaluation totale des Habitants	
	En 1855	En 1865
Londres (métropole)	2,548,382	2,993,513
Liverpool	403,547	476,368
Manchester	317,966	354,930
Salford	92,106	110,833
Birmingham	257,941	327,842
Leeds	186,356	224,025
Sheffield	154,662	211,529
Bristol	144,236	161,809
Newcastle-sur-Tyne	96,307	119,651

(f.) *Augmentation générale de la Population depuis 1855.*—L'augmentation totale de la population de la Grande-Bretagne entre les années 1855 et 1866 (non compris les militaires, marins, etc., absents du pays) peut être estimée à 12 pour cent ; le chiffre des habitants s'étant élevé de 21,807,000 in 1851, à 24,363,000 en 1866. En Irlande, la population a décréu, pendant la même période, de sept pour cent ; ce résultat doit surtout être attribué à l'émigration considérable qui a eu lieu.

Nombre de Personnes des deux sexes employées comme domestiques, et occupées aux travaux de l'agriculture, et d'autres branches d'industrie dans chaque division du Royaume-Uni, d'après le recensement de 1861.

Branches de Commerce, d'Industrie, etc.	En Angleterre et dans le Pays de Galles			En Écosse			En Irlande		
	Sexe		Total	Sexe		Total	Sexe		Total
	Masculin	Féminin		Masculin	Féminin		Masculin	Féminin	
Domestiques	137,447	1,071,201	1,208,648	10,827	138,375	149,202	41,318	304,767	346,085
Dans l'Agriculture (c'est-à-dire dans les champs et pâturages)	1,457,075	376,577	1,833,652	215,716	120,773	336,489	850,121	81,714	931,835
Industries :									
Livres	46,983	7,310	54,293	7,662	1,418	9,080	4,032	886	4,918
Instruments de musique	6,365	221	6,586	339	1	340	127	1	128
Gravure et peinture (art)	5,875	435	6,310	1,259	144	1,403	276	11	287
Modelage, sculpture sur bois, etc.	4,149	4,600	8,749	404	90	494	77	42	119
Objets de sport, etc.	2,427	1,760	4,187	181	89	270	122	42	164
Dessin, médailles, etc.	2,762	48	2,810	821	10	831	160	5	165
Horlogerie et instruments de précision	24,888	735	25,623	1,964	13	1,977	1,012	12	1,024
Instruments de chirurgie	798	231	1,029	31	8	39	15	3	18
Armes	13,031	713	13,744	397	5	402	258	1	259
Machines et outils	110,772	6,646	117,418	10,948	289	11,237	1,505	83	1,588
Voitures	19,896	232	20,128	1,549	1	1,550	2,972	28	3,000
Harnais	18,109	1,305	19,414	1,857	7	1,864	3,177	44	3,221
Navires	43,704	75	43,779	9,148	6	9,154	2,220	9	2,229
Maisons et constructions	480,092	25,579	505,671	68,598	4,708	73,306	57,023	7	57,030
Ameublements	55,606	8,316	63,916	6,889	533	7,422	3,347	556	3,903
Ustensiles divers	39,526	97	39,623	3,523	2	3,525	1,814	—	1,814
Produits chimiques	18,245	1,764	20,009	4,336	1,600	5,936	700	238	938
Laines	132,942	105,872	238,814	13,861	14,457	28,318	3,384	33,014	36,398
Soie	45,121	72,868	117,989	2,768	2,552	5,320	354	236	590
Coton et lin	238,643	324,371	563,014	53,704	88,708	142,412	44,773	82,375	127,148
Tissus mélangés	57,481	25,689	83,170	11,746	8,064	19,810	24,718	55,028	79,746
Vêtements	399,166	806,581	1,205,747	51,817	81,290	133,107	66,375	150,625	217,000
Chauvres, etc.	17,070	5,813	22,883	5,563	3,950	9,513	1,386	706	2,092
Aliments (viandes)	102,836	38,349	141,185	9,065	5,559	14,624	13,219	7,935	21,154
„ (végétaux)	115,585	20,869	136,454	18,355	2,293	20,648	16,742	3,795	20,537
Boissons et stimulants	129,293	23,388	152,681	21,150	5,804	26,954	9,034	2,231	11,265
Graisses, cornes, ivoire, etc.	11,186	854	12,040	1,386	247	1,633	1,175	108	1,283
Peaux, plumes, etc.	28,360	1,396	29,756	2,761	57	2,818	2,155	222	2,377
Crins	9,711	4,585	14,296	477	279	756	397	268	665
Gommés et résines	11,777	2,382	14,159	930	733	1,663	292	513	805
Bois	76,076	2,990	79,066	12,014	294	12,308	12,639	672	13,311
Écorces	2,236	116	2,352	655	19	674	488	9	497
Cannes, joncs, pailles	16,048	1,254	17,302	861	70	931	1,286	27	1,313
Papiers	19,173	11,632	30,805	3,043	3,695	6,738	2,219	1,115	3,334
Mines (minerais)	330,352	94	330,446	50,706	133	50,839	3,792	96	3,888
Charbons	43,554	4,654	48,208	4,619	356	4,975	2,488	132	2,620
Pierres, argiles	142,170	2,603	144,773	22,670	124	22,794	7,174	35	7,209
Poterie	32,981	14,163	47,144	3,136	1,244	4,380	530	348	878
Verrerie	14,211	1,392	15,603	1,208	34	1,242	242	44	286
Sels	2,404	123	2,527	77	6	83	80	13	93
Eaux	2,147	26	2,173	184	—	184	194	53	247
Or, argent, etc.	18,600	2,976	21,576	1,085	35	1,120	527	36	563
Cuivre	5,752	3,981	9,733	401	1	402	281	—	281
Étain et vif-argent	18,434	4,444	22,878	2,432	48	2,480	2,032	—	2,032
Zinc	743	17	760	9	—	9	4	—	4
Plomb et antimoine	4,027	970	4,997	532	—	532	63	—	63
Bronze et autres métaux composés	41,612	3,965	45,577	3,059	118	3,177	1,867	93	1,960
Fers et aciers	299,697	16,875	316,572	44,869	131	45,000	26,576	152	26,728

(g.) *Emigration.*—Pendant la période décennale terminée en 1865, 1,607,745 personnes émigrèrent du Royaume-Uni. De ce nombre, 139,802 se dirigèrent vers les colonies de l'Amérique du Nord, 1,005,844 allèrent aux États-Unis, 397,302 en Australie, et 64,797 dans différents autres pays. Il

n'existe point de relevé concernant l'immigration dans le Royaume-Uni.

(h.) *Aveugles.*—D'après le recensement de 1861, il y avait, à cette époque, dans le Royaume-Uni, 29,248 personnes privées de la vue, et qui se répartissaient comme suit :—

En Angleterre et le Pays de Galles	19,352 ou 1 sur 1,037 habitants
Écosse . . .	2,820 „ 1 „ 1,086 „
Irlande . . .	6,879 „ 1 „ 843 „
Îles des mers britanniques }	197 „ 1 „ 728 „
Royaume-Uni	29,248 ou 1 sur 994 „

Londres possède plusieurs institutions pour les aveugles indigents; il en existe également dans beaucoup d'autres villes du royaume.

(i.) *Sourds et Muets*.—Le nombre total des sourds et muets était, à la même date, de 20,311, ainsi répartis :—

En Angleterre et le pays de Galles	12,236 ou 1 sur 1,640 habitants
Écosse . . .	2,335 „ 1 „ 1,311 „
Irlande . . .	6,635 „ 1 „ 1,026 „
Royaume-Uni (y compris les îles)	20,311 ou 1 sur 1,432 „

Les comtés du nord de l'Écosse contiennent une plus grande proportion de sourds et muets que toute autre partie de la Grande-Bretagne.

(j.) *Naissances, Décès, Mariages*.

Années	Chiffre approximatif de la Population	Naissances	Décès	Mariages
Angleterre et Pays de Galles				
1863	20,554,137	727,417	473,837	173,510
1864	20,772,308	740,275	495,531	180,387
1865	20,990,946	747,870	491,360	182,470
Écosse				
1863	3,101,345	109,325	71,421	22,087
1864	3,118,701	112,445	74,303	22,675
1865	3,136,057	113,126	70,821	23,577
Irlande				
1864 }	*5,798,967	136,640	94,000	27,370
1865 }		145,200	93,700	30,680

* Population en 1861.

(k.) *Indigents*.—Le nombre total des indigents assistés dans les asiles et à domicile était, au

1^{er} janvier 1866, dans chacune des divisions du Royaume-Uni, savoir :—

En Angleterre et dans le Pays de Galles . . .	920,344
Écosse . . .	121,394
Irlande . . .	65,057

(l.) *Crimes et Délits en 1865*.

	En Angle- terre et le Pays de Galles	En Écosse	En Irlande
Nombre de personnes accusées . . .	19,614	2,567	4,657
Nombre de personnes condamnées . . .	14,740	2,360	2,663
Nombre de personnes acquittées (non-com- pris celles reconnues atteintes d'aliénation mentale et détenues)	4,842	207	1,966

PRODUCTION. — Agriculture — Récoltes — Laine—Lin—Produits vivants—Importance des Fermes—Forêts—Pêcheries—Charbon — Métaux — Pétrole—Argiles—Grès—Sel—Tissus—Autres Manufactures.

(a.) *Agriculture*.—En ce qui concerne les productions du sol, il n'y a, malheureusement, aucun rapport officiel relativement aux quantités de céréales, de viande, de laine, ou de beurre, fromages et autres articles de laiterie, annuellement produites. Sous ce rapport l'Angleterre est bien en arrière de la plupart des nations du continent, où, depuis quelques années, un système complet de statistique agricole a été mis en action. On ne possède, jusqu'en 1866, aucun relevé complet pour le royaume entier, pas même pour ce qui regarde l'étendue du terrain mis en culture, et le nombre des bestiaux.

Le tableau ci-après indique la superficie des terres cultivées en 1866 dans chacune des divisions du royaume :—

Divisions	Superficie totale	Superficie totale du Terrain en culture, en jachère, en friche, etc.	Superficie consacrée à la Culture	
			des Céréales	des Plantes fourragères et potagères
	Acres	Acres		
Angleterre	32,590,397	22,261,833	7,400,170	2,750,008
Pays de Galles	4,734,486	2,284,674	521,074	139,265
Écosse	19,639,377	4,158,360	1,366,540	663,257
Grande-Bretagne	56,964,260	28,704,867	9,287,784	3,552,530
Irlande	20,322,641	*15,549,796	2,173,433	1,482,091
Île de Man	180,000	82,902	27,266	12,208
Îles de la Manche—Jersey	28,717	20,357	3,142	5,253
Guernesey	17,967	11,999	2,041	2,938
Total, Royaume-Uni	77,513,585	—	11,493,666	5,055,020

* Ces chiffres comprennent les pâturages qui ne figurent pas dans les relevés des autres divisions du royaume.

(b.) *Récoltes.*—L'étendue totale du terrain affecté à la culture des principales récoltes de grains, était :—

	Acres
Pour le blé	3,697,635
l'orge	2,398,485
l'avoine	4,469,297
le seigle	67,879
les fèves	537,210
les pois	323,160
	<hr/> 11,493,666

En prenant pour la Grande-Bretagne vingt-sept boisseaux de blé comme rendement moyen par acre, et, pour l'Irlande, vingt-cinq boisseaux, la production annuelle du froment peut être estimée à 12,364,000 quarters, environ, pour tout le Royaume-Uni. La production indigène du froment est cependant loin de suffire aux besoins de la consommation, et il s'en importe, ainsi que d'autres sortes de grains, de grandes quantités, comme on pourra le voir en se référant aux remarques sur le commerce général des importations du pays. Mr. Caird, autorité bien connue en matière d'agriculture, estime que le rendement moyen des autres espèces de grains, en Angleterre, est de 38 boisseaux par acre pour l'orge; de 44 boisseaux pour le seigle et les avoines; et de 30 boisseaux pour les fèves et les pois.

L'élevage des bestiaux dans la Grande-Bretagne a été, ces dernières années, l'objet d'une attention toute particulière; conséquemment une grande surface du terrain du pays a été consacrée à la culture des racines. La superficie totale couverte par les récoltes des plantes potagères et fourragères dans le Royaume-Uni, en 1866, était de 5,055,020 acres, dont 1,555,609 en pommes de terre; 2,468,564 en navets et rabioles; 279,987 en mangel-worzel; 22,061 en carottes; 216,610 en choux, kohl-rabi et navettes; et 512,189 en vesces, luzerne et autres fourrages, à l'exception du trèfle et de l'herbe.

(c.) *Laine et Lin.*—De toutes les matières utilisées dans les manufactures textiles, il n'y a que le lin et la laine qui soient produits dans le Royaume-Uni. Mr. Behrens, prenant pour base le chiffre des moutons du pays, estime à 152,000,000 de livres la production de la laine. C'est en Irlande surtout que croît le lin, bien qu'il s'en cultive dans des proportions restreintes en Angleterre et en Écosse. L'étendue totale du terrain affecté, en 1866, à la culture de ce textile en Irlande était de 263,659 acres, ayant donné approximativement 1,051,000 quintaux de lin.

(d.) *Produits vivants.*—Le nombre total de chaque sorte de bétail qui existait, en 1866, dans les différentes divisions de Royaume-Uni, était :—

Divisions	Gros Bétail			Moutons	Porcs
	Vaches	Autres Bestiaux	Total		
	Nombre	Nombre	Nombre	Nombre	Nombre
Angleterre	1,290,529	2,016,505	3,307,034	15,124,541	2,066,299
Pays de Galles	222,546	318,855	541,401	1,668,663	191,604
Écosse	370,447	566,954	937,401	5,255,077	219,716
Irlande	1,481,446	2,261,486	3,742,932	4,270,027	1,493,000
Île de Man	7,755	10,932	18,687	55,954	10,956
Îles de la Manche—Jersey	5,815	6,222	12,037	517	6,332
Guernesey	3,030	3,946	6,976	1,214	5,599
Total (Royaume-Uni)	3,381,568	5,184,900	8,566,468	26,375,993	3,993,506

Par suite des pertes qu'a fait subir la peste bovine, les relevés ci-dessus sont inférieurs au chiffre ordinaire du bétail entretenu dans le pays. En ajoutant le montant des pertes aux totaux indiqués dans le tableau qui précède, on aurait alors 8,716,279 têtes de gros bétail. La date à laquelle les relevés ont été faits n'a probablement pas pu permettre de comprendre dans le nombre des moutons une grande quantité d'agneaux de l'année (1866), du moins pour ce qui regarde les comtés du nord de l'Angleterre et l'Écosse. Les porcs élevés par les paysans et dans les villes ne figurent pas dans les chiffres cités plus haut pour les différentes divisions de la Grande-Bretagne.

Lorsqu'on a relevé les statistiques qui précèdent, pour la Grande-Bretagne, aucune disposition n'avait été prise pour s'assurer du nombre de chevaux existant. D'après les

informations puisées dans les registres du fisc, il y avait en 1864 dans la Grande-Bretagne 1,071,095 chevaux et mulets; et d'un autre côté on a constaté qu'il existait, en 1866, 535,000 de ces animaux en Irlande, ce qui donnerait un total d'un million et demi environ pour tout le royaume.

(e.) *Importance des Fermes.*—1. *Grande-Bretagne.*—Les dernières statistiques relatives à l'importance (*étendue*) des fermes de la Grande-Bretagne datent de 1851; à cette époque, le nombre total des fermes, dans chacune des divisions du pays, était de—

	Nombre de Fermes
En Angleterre et le pays de Galles	225,318
„ Écosse	56,650
Dans les îles des mers britanniques	3,968
Total	<hr/> 285,936

L'étendue moyenne de chaque ferme, dans la Grande-Bretagne, était de 102 acres ; de 111 acres en Angleterre et le pays de Galles ; de 74 acres en Écosse, et de moins de 100 acres dans les îles. On comptait, dans la Grande-Bretagne, sur mille fermes, les proportions suivantes :—

Au-dessous de 100 acres	. 672 fermes
De 100 à 200 acres	. 187 "
De 200 à 1,000 acres	. 137 "
Au-dessus de 1,000 acres	. 4 "

1,000

L'étendue des terres se trouvant entre les mains de 2,038 fermiers, ayant des cultures de 700 acres et au-dessus, en Angleterre et dans le pays de Galles, à la même date, excédait de 10,060 acres celle des terres tenues par 97,800 petits fermiers, ainsi du reste qu'on va le voir :—

	Nombre de Fermiers	Acres de Terre
Fermiers ayant des cultures de 700 acres et au-dessus	2,038	2,152,050
Petits fermiers	97,800	2,141,990

2. *Irlande*.—L'étendue des fermes en Irlande était, en 1864 :—

Étendue des Cultures	Nombre de Fermes
Au-dessous de 5 acres	. 130,690
De 5 à 15 acres	. 176,368
De 15 à 30 „	. 136,578

Étendue des Cultures	Nombre de Fermes
De 30 à 50 „	. 71,961
De 50 à 100 „	. 54,347
Total, au-dessous de 100 acres	. 569,844
De 100 à 200 acres	. 22,065
De 200 à 500 „	. 8,303
Au-dessus de 500 acres	. 1,559
Total général	. 601,771

(f.) *Forêts*.—On ne possède aucun renseignement sur la quantité de bois de haute futaie produite dans le Royaume-Uni, mais on estime à environ deux millions de livres sterling sa valeur annuelle.

(g.) *Pêcheries*.—Les pêcheries britanniques sont très-importantes, et on trouvera, à leur sujet, un exposé général dans les notes statistiques de la Classe 70.

(h.) *Charbons et Métaux*.—Les ressources minérales du Royaume-Uni sont considérables, et elles forment une des plus grandes branches de la richesse nationale. Depuis 1854, des relevés statistiques complets de la production minérale du pays ont été recueillis sous la surveillance de Mr. Robert Hunt, conservateur des archives minérales attaché au Musée de Géologie de l'État. La valeur totale des charbons et des métaux produits dans le Royaume-Uni pendant l'année 1865 s'élève à 41,745,429*l.* sterling. Le tableau ci-après contient les quantités et valeurs des productions minérales en 1865 :—

	Quantités		Valeur estimative sur les Lieux de Production	
	de Minéraux extraits	de Métaux produits	des Minéraux extraits	des Métaux produits
Charbons Tonnes	98,150,587	—	£ 24,537,646	£ —
Fers „	9,910,045	4,819,254	3,324,804	11,774,220
Plomb „	90,451	67,181	1,153,134	1,433,161
Cuivre „	198,298	11,888	927,938	1,134,664
Étain „	15,686	10,039	867,435	971,273
Zinc „	17,842	4,040	52,478	104,810
Pyrites „	114,195	—	71,174	—
Or (Quartz) „	4,280	once 1,664	—	5,824
Argent Onces	—	724,856	—	199,335
Minéraux non métalliques (d'après comptendu)	—	—	774,496	—
Minéraux non métalliques (d'après estimation)	—	—	650,000	—
Minerais métallifères et métaux autres que ceux ci-dessus (estimation)	—	—	—	150,000
Total	—	—	32,359,105	15,773,287

La valeur totale du charbon et des métaux était donc de—

	£
Charbon	24,537,646
Métaux	15,773,287
Minéraux non-métalliques et non compris les argiles et les pierres à bâtir	1,434,496
Total	41,745,429

On trouvera dans les notes statistiques de la Classe 40 un exposé détaillé de la production des divers minéraux et métaux.

(i.) *Pétrole*.—L'importance de la production du pétrole n'a pas encore été constatée, mais l'extraction de cette huile minérale des différentes sources bitumineuses du pays est actuellement l'objet d'un commerce assez étendu.

(j.) *Argiles et Terres à Porcelaine*.—En 1865 le produit total des argiles et terres à porcelaine a été de 1,125,924 tonnes, représentant une valeur de 373,916*l.*

(k.) *Sel*.—Le sel est tiré du Cheshire, du Worcestershire et de l'Irlande. Les salines du Cheshire peuvent fabriquer un million de

tonnes de sel par an ; celles du Worcestershire 200,000 tonnes environ. La production de cet article en Irlande est relativement bien inférieure.

(*l.*) *Manufactures Textiles.*—La fabrication des tissus a lieu sur une échelle considérable dans le Royaume-Uni. Ou pourra avoir une idée de son importance par ce fait, qu'en 1865, outre

les produits textiles manufacturés pour la consommation intérieure, il en a été exporté pour une valeur d'environ *quatre-vingt sept millions de livres sterling.*

Le nombre des fabriques en activité dans le Royaume-Uni était, d'après le recensement de 1861 :—

Genre de Fabrique ou Filature	Nombre de Fabriques	Nombre de Broches	Nombre de Métiers mécaniques	Nombre d'Ouvriers		Chevaux de Force Motrice	
				Sexe masculin	Sexe féminin	Vapeur	Eau
Coton	2,887	30,387,467	399,992	182,556	269,013	281,663	12,467
Lin	399	1,216,674	14,792	24,616	62,813	31,727	4,354
Soie	771	1,338,544	10,709	15,530	36,899	6,186	864
Étoffes de laine	1,679	2,182,609	21,770	49,754	37,229	26,879	9,598
Étoffes d'estame	532	1,289,172	43,048	31,501	54,562	26,234	1,970
Chanvre	5	2,580	1	105	502	127	—
Jute	36	32,982	554	2,049	3,918	2,048	60
Bonneterie	69	—	—	2,162	2,325	447	46
Total	5,378	36,450,028	490,866	308,273	467,261	375,311	29,359

Les notes statistiques des Classes 27 à 30 contiennent l'exposé de la production des diverses industries textiles du pays.

(*m.*) *Autres Manufactures.*—On trouvera aux Classes sous lesquelles sont respectivement exposés les articles, des renseignements généraux sur les différentes manufactures et industries du pays.

COMMERCE.—Chambres de Commerce—Commerce extérieur—Importations—Droits d'Importation—Exportations—Droits d'Exportation—Marchandises—Métaux précieux—Transbordements—Articles importés—Articles exportés—Commerce des Ports.

(*a.*) *Commerce.*—À l'exception du commerce de quelques articles sur lesquels le gouvernement exerce une certaine surveillance pour l'application des droits et la remise des primes de 'drawback,' etc., l'industrie commerciale est, dans toutes ses branches, parfaitement libre et dégagée de tous liens. Chacun peut, à sa guise, entreprendre où bon lui semble le genre d'affaires qui lui convient, pourvu toutefois qu'il n'enfreigne pas les lois ordinaires du pays.

Les trois grandes classes d'individus liés à l'industrie commerciale sont le producteur et le manufacturier, le marchand et l'agent intermédiaire, et le négociant en gros ou en détail, qui fournit directement aux consommateurs.

La majeure partie du commerce extérieur du pays se trouve généralement entre les mains du marchand, qui vend les produits du manufacturier aux risques et périls de ce dernier, ou bien achète ces produits, et les vend pour son propre compte. Dans le premier cas le marchand reçoit une commission sur les ventes, et dans le second on lui fait un escompte considérable sur le prix des marchandises.

(*b.*) *Chambres de Commerce.*—Il existe des Chambres de Commerce dans presque toutes les villes et centres manufacturiers importants de la Grande-Bretagne ; elles se composent des

principaux marchands et manufacturiers de la localité, qui, tout en soignant les intérêts des industries auxquelles ils se trouvent plus intimement liés, s'occupent également des questions se rattachant au commerce général du pays. Vers le commencement de chaque année a lieu, à Londres, une assemblée des Chambres de Commerce réunies.

(*c.*) *Commerce Extérieur.*—Le commerce extérieur du Royaume-Uni, qui s'étend à toutes les parties du monde, a pris un développement considérable pendant les dix dernières années ; la valeur des importations a passé du chiffre de cent soixante-douze millions de livres sterling à celui de deux cent soixante-onze millions. Le montant des exportations pendant la même période, s'est élevé de cent trente-neuf à deux cent dix-huit millions sterling. Il ne rentre pas dans les limites de ces remarques sommaires de s'arrêter au détail de chaque branche d'industrie, mais il n'est pas sans intérêt d'indiquer ici le chiffre des échanges commerciaux entre le Royaume-Uni et les États les plus importants du globe.

(*d.*) *Importations.*—En ce qui concerne les importations, les pays ci-après désignés ont été les principaux sources d'approvisionnement en 1861 et en 1865 :—

Pays	En 1861	En 1865
	£	£
Russie	12,822,000	17,383,000
Prusse	6,440,000	6,126,000
Villes hanséatiques	6,058,000	8,837,000
Hollande	7,692,000	12,413,000
Belgique	3,817,000	7,354,000
France	17,826,000	31,625,000
Espagne	4,458,000	4,769,000
Italie	2,478,000	2,486,000
Turquie	3,632,000	5,405,000
Égypte	8,398,000	21,773,000
Chine	8,608,000	10,499,000
États-Unis	49,389,000	21,624,000
Pérou	3,169,000	4,002,000
Chili	2,416,000	3,798,000
Brésil	2,631,000	6,797,000
Possessions britanniques	52,676,000	72,840,000

La diminution dans les chiffres relatifs aux États-Unis n'a pas besoin de commentaires. Les augmentations que l'on remarque pour la Turquie, l'Égypte, la Chine, le Brésil et les possessions britanniques sont dues, en grande partie, au surcroît des importations de coton brut tiré de ces pays pendant la cessation des arrivages américains.

Le progrès remarquable des importations françaises s'explique par l'accroissement continu des échanges entre les deux pays depuis la conclusion du Traité de Commerce de 1860.

(c.) *Droits d'Importation.*—La table ci-dessous indique les droits d'entrée auxquels sont actuellement soumises les marchandises étrangères de toutes sortes.

Liste des articles sujets aux droits d'entrée dans le Royaume-Uni.

		Droits		
		£	s.	d.
Bière et ale, mum (bière d'Allemagne) et spruce beer	barrique	1	0	0
Cartes à jouer, la douzaine de paquets		0	3	9
Chicorée ou substances en tenant lieu—				
Verte au séchée au four.	quintal	1	6	6
Torrifiée ou moulue	livre	0	0	4
Chloroforme	„	0	3	0
Cacao	„	0	0	1
Noix et pellicules	quintal	0	2	0
Pâte et chocolat	livre	0	0	2
Café, vert.	„	0	0	3
Séché au four, torréfié ou moulu	„	0	0	4
Collodion	gallon	1	4	0
Confiserie et pâtisserie sucrée	livre	0	0	1
Céréales et grains de toutes sortes.	quintal	0	0	3
Farines de toutes sortes, tapioca, sagou, arrowroot, semoule, etc., poudres et amidons	„	0	0	4½
Fruits secs, raisins de Corinthe, figues, gâteaux de figues, raisins de caisse, pruneaux	„	0	7	0
Dés à jouer	la paire	1	1	0
Essence de spruce	10 % de la valeur			
Éther	le gallon	1	5	0
Malt	le quarter	1	5	0
Lait condensé et conservé (soumis aux droits à cause du sucre qu'il contient)	le quintal	0	5	0
Orfèvrerie d'or	once troy	0	17	0
do. d'argent ou de vermeil	„	0	1	6
Spiritueux et articles contenant de l'alcool :				
Non édulcorés :				
Eau de vie et genièvre	gallon	0	10	5

		Droits		
		£	s.	d.
Rhum	Étranger, importé du pays de production	gallon	0	10 2
	Importé de pays non producteurs	„	0	10 5
Tafia des colonies françaises		„	0	10 2
Rhum et autres spiritueux des possessions britanniques		„	0	10 2
Non dénommés		„	0	10 5
Édulcorés :				
Édulcorés ou mélangés, y compris les cordiaux et liqueurs.		„	0	10 2
Spiritueux parfumés destinés à être employés comme parfumeries seulement		„	0	14 0
Eau de Cologne en flacons (les 30 flacons ne contenant pas plus d'un gallon)	le flacon	0	0	6
Importé autrement le droit est le même que pour spiritueux parfumés.				
Sucre :				
Candi et raffiné	quintal	0	12	0
Non raffiné, 1ère catégorie	„	0	11	3
Non raffiné, 2e catégorie	„	0	10	6
„ 3e „	„	0	9	7
„ 4e „	„	0	8	0
Jus de canne	„	0	8	0
Mélasses	„	0	3	6
Thé	livre	0	0	6
Tabac, non manufacturé :				
Ecôté ou non écôté :				
Contenant 10 livres ou plus d'humidité par 100 livres	„	0	3	0 et 5%
Contenant moins de dix livres d'humidité	„	0	3	6
Tabac manufacturé :				
Cigares à fumer (Cavendish and Negrohead)	„	0	5	0
à priser (contenant plus de 13 livres d'humidité par 100 livres)	„	0	4	6
en contenant moins de 13 livres, etc.	„	0	3	9
Autre tabac manufacturé non dénommé	„	0	4	0

		Droits		
		£	s.	d.
Tabac à fumer manu- facturé dans les docks du Royaume- Uni (<i>Cavendish or Negrohead</i>)	livre	0	4	0
Vernis contenant une quantité quelconque d'esprit ou d'alcool	gallon	0	12	0
Vinaigre	"	0	0	3
Conserves au vinaigre .	"	0	0	1
Vins et lies de vins :				
Contenant moins de 26 degrés d'esprit- <i>de-preuve</i> *	"	0	1	0
En contenant de 26 à 41 degrés	"	0	2	6
Sous un droit addition- nel de 3d. par gallon pour chaque degré au- dessus de 41.				

* L'esprit de preuve contient 50 pour cent d'alcool, d'après l'hydromètre de Sykes. (Clement's Customs' Guide, etc.)

(f.) *Exportations.*—Les principaux débouchés des exportations britanniques en 1861 et 1865, étaient :—

Pays	En 1861	En 1865
Russie	£ 5,765,000	£ 6,180,000
Prusse	4,057,000	4,010,000
Villes hanséatiques	13,046,000	22,984,000
Hollande	10,989,000	14,960,000
Belgique	4,914,000	6,896,000
France	17,427,000	25,355,000
Espagne	3,386,000	3,015,000
Turquie	3,104,000	5,847,000
Égypte	2,398,000	6,168,000
Chine	3,161,000	3,688,000
États-Unis	11,025,000	25,170,000
„ „ en 1860	22,907,000	
Bésil	4,690,000	5,771,000
Colonies britanniques	45,139,000	51,546,000

(g.) *Droits d'Exportation*.—Les articles exportés du Royaume-Uni sont exempts de tous droits.

(h.) *Commerce général.*—Les chiffres contenus dans les tableaux ci-après font ressortir le progrès général du commerce du pays.

1. *Marchandises*.—La valeur totale des importations pour consommation et celle des produits indigènes exportés pendant les dix dernières années a été:—

Années	Importations			Exportation des Produits britanniques et irlandais
	Totaux	Ré-exportations	Gardées pour la consommation	
1856	£ 172,544,000	£ 23,393,000	£ 149,151,000	115,827,000
1857	187,844,000	24,108,000	163,736,000	122,066,000
1858	164,584,000	23,174,000	141,410,000	116,608,000
1859	179,182,000	25,281,000	153,901,000	130,411,000
1860	210,531,000	28,639,000	181,901,000	135,891,000
1861	217,485,000	34,529,000	182,956,000	125,103,000
1862	225,717,000	42,176,000	183,541,000	123,992,000
1863	248,919,000	50,300,000	198,619,000	146,602,000
1864	274,952,000	52,139,000	222,813,000	160,449,000
1865	271,072,000	52,996,000	218,076,000	165,836,000

Le déclin constaté dans le trafic général en 1858 a été le résultat de la panique commerciale de 1857, et la diminution des exportations, en 1861-62, doit être attribuée à la guerre des États-Uni et à la disette du coton.

2. *Métaux précieux*.—La valeur totale des lingots d'or et d'argent importés dans le Royaume-Uni et exportés, depuis 1858 (première année où l'on a commencé à enregistrer les importations) a été :—

	Importa- tions £	Exporta- tions £
1858 .	29,493,000 .	19,628,000
1859 .	37,070,000 .	35,688,000
1860 .	22,978,000 .	25,534,000
1861 .	18,747,000 .	20,811,000
1862 .	31,656,000 .	29,326,000
1863 .	30,030,000 .	26,544,000
1864 .	27,728,000 .	23,132,000
1865 .	21,462,000 .	15,092,000

3. *Transbordements.*—Cette branche de commerce, qui n'est pas comprise dans les relevés statistiques ci-dessus, a fait de grands progrès pendant les dix dernières années. La valeur totale des marchandises étrangères transbordées dans les ports du Royaume-Uni était, en 1856, de 4,579,000*l.* sterling, tandis qu'elle atteignait 6,469,000*l.* en 1865.

Les chiffres contenus dans les tableaux qui précèdent font ressortir clairement l'importance du commerce général et spécial du pays.

(i.) *Articles importés.*—Les principales importations consistent en articles pour l'alimentation, etc., et en matières premières pour manufactures. Les seules marchandises fabriquées qui soient importées sur une grande échelle, sont les soieries, les cuirs ouvrés et les lainages. Il n'existe point de relevés concernant la valeur des objets retenus pour les besoins intérieurs ; mais si l'on déduit du chiffre total des importations celui des marchandises étrangères ré-exportées, on en obtiendra approximativement le montant. La table ci-dessous indique la valeur des importations et des ré-exportations, et celle des principaux articles retenus pour la consommation, en 1865 :—

Principaux Articles	Importations totales	Ré- exportations	Retenu pour Consomma- tion
1. Articles alimen- taires, boissons, etc.			
Animaux vivants :			
Bœufs, tau- reaux, etc.	£ 4,401,482	£ 70	£ 4,401,412
Moutons et agneaux	1,787,866	272	1,787,594
Lard et jambons	2,133,705	12,756	2,120,949
Bœuf	421,461	16,872	404,589
Beurre	5,945,884	75,393	5,870,491
Fromages	2,463,299	30,392	2,432,907
Cacao	234,655	101,315	133,340
Café	4,600,887	3,249,534	1,351,353
Céréales et farines.	20,724,115	32,576	20,691,539
Œufs	928,247	—	928,247
Poisson	514,712	51,703	463,009

Principaux Articles	Importations totales	Ré- exportations	Retenu pour Consomma- tion
£	£	£	
1. Articles alimentaires, boissons, etc.			
Fruits . . .	2,848,830	232,228	2,616,602
Houblon . . .	459,157	18,236	440,921
Saindoux . . .	468,398	7,382	461,016
Huile d'olive . . .	1,684,852	67,855	1,616,997
Porc . . .	576,988	13,615	563,373
Pommes de terre . . .	161,907	14	161,893
Volaillies et gibier . . .	148,642	120	148,522
Riz . . .	1,347,494	959,952	387,542
Sagou . . .	121,285	7,407	113,878
Épices . . .	634,278	458,118	176,160
Spiritueux . . .	1,700,487	481,735	1,218,752
Sucres et mélasse . . .	13,025,903	662,373	12,363,530
Thés . . .	10,044,462	2,719,454	7,325,008
Tabacs et cigares . . .	3,329,309	732,347	2,596,872
Vins . . .	3,914,196	620,034	3,294,162
Levure, sèche . . .	232,228	8	232,220
2. Matières premières employées dans les manufactures.			
Cendres et potasses . . .	226,378	6,469	219,909
Écorces pour tan- ner ou teindre } . . .	167,133	2,231	164,902
Os . . .	429,023	46	428,977
Soufre . . .	359,016	9,739	349,277
Soies (de porc) . . .	328,317	22,643	305,674
Caoutchouc, brut . . .	530,538	193,638	336,900
Cochenille . . .	455,668	317,693	137,975
Cuivre (minéral) . . .	2,699,064	17,479	2,681,585
Cuivre non ouvré } etc. . .	2,049,515	852,489	1,197,026
Liège, brut . . .	198,516	20,100	178,416
Coton, brut . . .	66,032,193	18,834,258	47,197,935
Lîn, brut . . .	5,369,719	127,399	5,242,320
Guano . . .	2,675,995	105,292	2,570,703
Gommess . . .	729,377	436,908	292,469
Gutta-percha, brute Crins et poils : . . .	160,565	9,137	151,428
Poil de chèvre . . .	837,322	—	837,322
Poil de cheval, vache, etc. . .	371,366	23,947	347,419
Chanvre, brut . . .	1,744,482	252,320	1,492,162
Peaux vertes ou tannées . . .	3,073,447	767,770	2,305,677
Indigo . . .	2,002,900	2,005,066	—
Fer, en barres . . .	584,082	109,369	474,713
Fers, aciers, non ouvrés . . .	1,060,696	11,084	89,612
Jute brute . . .	1,774,992	351,801	1,423,191
Plomb en san- mons et en feuilles . . .	670,694	7,744	662,950
Garance . . .	741,307	5,344	735,963
Manganèse (mi- néral) . . .	165,894	71	165,823
Nitre cubique . . .	665,807	27,539	638,268
Huiles (excepté celle d'olive) . . .	4,158,779	903,777	3,255,002
Tourteaux . . .	859,782	34	859,748
Poix et goudrons . . .	165,063	14,645	140,418
Pyrites . . .	510,295	542	509,753
Chiffons, etc., pour la fabri- cation du papier . . .	635,581	24,314	631,267
Résine . . .	461,952	16,465	445,487
Salpêtre . . .	384,574	29,167	355,407
Graines : . . .			
de trèfle . . .	722,516	67,554	654,962
de lin . . .	3,983,243	407,968	3,575,275
de colza . . .	629,745	259,451	370,294
de coton . . .	836,744	13,423	823,321
Sumac . . .	190,407	61,364	129,043
Soie, brute et dé- chets . . .	10,958,467	4,158,814	6,799,653
Argent (minéral) . . .	382,391	18,321	364,070

Principaux Articles	Importations totales	Ré- exportations	Retenu pour Consomma- tion
£	£	£	
2. Matières premières employées dans les manufactures.			
Peaux et fourrures . . .	1,316,471	550,127	1,09,766
Zaif . . .	702,060	84,050	618,044
Suif . . .	3,125,282	94,174	3,031,108
Dents d'éléphants . . .	322,286	207,014	115,272
Terre du Japon . . .	375,345	118,550	256,795
Étain, non ouvré . . .	529,803	186,442	333,361
Arélanède . . .	320,460	1,057	319,403
Bois et bois de char- pente : . . .			
Ni scié, ni fen- du et teck . . .	5,570,304	94,977	5,475,327
Sapin, voliges, etc., scié ou fendu . . .	6,559,931	86,908	6,473,023
Douves . . .	649,610	12,983	626,627
Autres sortes . . .	517,468	—	517,468
Bois de teinture . . .	238,309	24,845	213,464
Bois durs . . .	661,943	48,605	613,338
Laines de mou- tons, agneaux, etc. . .	14,930,430	5,889,082	9,041,348
Fils de laine . . .	998,784	3,163	995,621
3. Articles manu- facturés, etc.			
Perles et grains de verre . . .	178,310	109,285	69,025
Livres . . .	119,486	5,110	114,376
Chandelles, stéarine Porcelaine et faïence . . .	148,247	88,920	59,327
166,098	4,202	161,896	
Pendules et montres . . .	473,753	14,110	459,643
Cotonnades . . .	759,358	198,746	560,612
Fleurs artificielles . . .	299,427	634	298,793
Articles en verre . . .	620,991	12,892	608,099
Articles de crin . . .	249,696	117,017	132,679
Chapeaux de paille . . .	556,065	7,014	549,051
Dentelles . . .	167,706	17,089	150,617
Cuir ouvré . . .	1,219,194	26,657	1,192,537
Lingerie de toile . . .	153,104	43,523	109,581
Instruments de musique . . .	243,813	12,551	231,262
Papiers de toutes sortes, excepté les papiers- peints . . .	494,222	11,298	482,924
Papiers-peints . . .	23,873	733	23,100
Nattes de toutes sortes . . .	133,111	175	132,936
Articles de soierie . . .	8,496,825	166,936	8,329,889
Jonets d'enfants . . .	163,024	9,524	153,500
Lainages . . .	1,891,104	113,025	1,778,079

(j.) *Articles d'Exportation.*—Le commerce d'exportation du Royaume se compose des marchandises étrangères mentionnées au tableau précédent et des produits indigènes.

Les exportations britanniques consistent principalement en articles fabriqués, en minéraux et en métaux. Les produits textiles manufacturés représentent à eux seuls environ soixante pour cent de la valeur totale des exportations de 1865. La table ci-après indique le chiffre des principaux articles exportés pendant la même année :—

Articles principaux	Valeur £
Instruments d'agriculture . . .	210,300
Alcali, soude . . .	1,123,946
Vêtements de toutes sortes . . .	2,639,012
Armes et munitions . . .	1,134,256

Articles principaux	Valeur £
Lard et jambons	118,159
Sacs	696,291
Bœuf et porc	39,774
Bière et ale	2,060,976
Livres, imprimés	511,388
Airains de toutes sortes	232,309
Beurre	333,228
Bougies, stéarine	110,575
Voitures	352,787
Ciments	285,898
Fromages	111,102
Charbon, coke, et escarbille	4,427,177
Cuivre, non ouvré	496,148
„ „ ouvré	2,434,062
Cordes et ficelles	414,213
Céréales et farines	274,636
Fil de coton	10,342,737
Tissus de coton :	
En pièces, blancs ou unis	27,791,035
„ „ imprimés, teints et de couleur	17,085,328
Dentelles et tulles	465,611
Bas	240,534
Fil à coudre	753,326
Bonneterie et passementerie	587,550
Drogues et produits chimiques non dénommés	919,256
Faïence et porcelaine	1,442,197
Poisson, harengs	500,233
„ „ autres sortes	189,005
Meubles, ébénisterie et tapisserie	289,887
Verre, glaces	71,387
„ „ cristal anglais	302,105
„ „ à vitres	60,857
„ „ bouteilles communes	310,245
Mercerie et modes	5,030,740
Quincaillerie et coutellerie de toutes sortes	4,326,741
Chapeaux de toutes sortes	483,594
Chevaux	185,367
Fer, vieux	12,587
„ „ en gueuses et en barres (ex- cepté les rails), angles, boulons, et tiges	1,599,491
„ „ rails de toutes sortes	2,199,837
„ „ fontes et articles de fer fondu	3,550,563
„ „ fil de fer et articles en fil de fer	792,581
„ „ cercles, feuilles, et plaques de chaudières	474,005
„ „ Autres produits en fer forgé	1,603,964
„ „ acier en lingots, en barres, ou en feuilles	2,456,202
„ „ 782,129	
Bijouterie	164,231
Fil de jute	82,141
Jute manufacturée	311,540
Plomb, saumons, tuyaux, feuilles et plomb de chasse	581,684
„ „ minéral de plomb, minium, blanc de céruse et litharge	186,123
Cuir, tanné non ouvré	409,249
„ „ ouvré, chaussures	1,462,105
„ „ „ d'autres sortes	240,299

Articles principaux	Valeur £
Cuir, sellerie et bourrellerie	350,531
Fil de lin	2,535,321
Tissus de lin :	
Unis ou blancs	7,126,330
Imprimés, teints	606,040
Batiste et linon	300,201
Damassés et ouvrés	111,040
Voiles de navires	382,713
Fil de lin, à coudre	558,444
d'autres sortes	72,222
Machines à vapeur	1,958,533
„ „ autres sortes	3,264,100
Huile, graines	1,547,683
Couleurs de peintres	473,051
Papiers peints	109,320
„ „ autres sortes	447,741
Conserves au vinaigre et sauces	328,381
Orfèvrerie (or et argent)	62,532
Articles en plaqué	112,452
Provisions (non autrement dé- nommées)	308,052
Sel	274,631
Soie, moulinée	477,590
„ „ cordonnet et fil	289,468
Soie manufacturée :	
En pièces	550,852
Foulards et châles	251,786
Rubans	120,504
Autres sortes	481,239
Savon	184,279
Spiritueux britanniques	244,104
Papeterie, non-compris le papier	405,067
Sucre raffiné	249,677
Appareils et fils télégraphiques	148,679
Étain non ouvré	498,070
Fer blanc en feuilles	1,481,098
Laine, d'agneaux et de moutons	901,660
Fils de laine	5,429,504
Articles de laine manufacturés :	
Draps, étoffes, etc.	4,023,954
Flanelles, couvertures et espa- gnolettes	1,203,127
Étoffes d'estame	13,360,527
Tapis et bures	861,453
Autres sortes	655,669
Zinc, ouvré et non ouvré	94,659
Articles divers	6,700,238
Total	165,835,725

(k.) *Commerce des Ports.*—On n'a point de relevés statistiques en ce qui concerne la valeur des importations dans les principaux ports du royaume. Liverpool, Londres, Hull, Grimsby, Southampton, Newcastle, Hartlepool, Folkestone et Cardiff, pour l'Angleterre et le Pays de Galles ; Glasgow et Leith pour l'Ecosse, sont les ports les plus importants pour l'embarquement des marchandises britanniques destinées à l'exportation. Les produits irlandais sont, pour la plupart, embarqués à Liverpool, etc. Soixante-six pour cent des exportations totales de 1865

quittèrent les ports de Liverpool et de Londres.

COMMERCE INTÉRIEUR.—Les seules données statistiques qui existent et qui puissent permettre de se former une idée sur l'ensemble du

commerce intérieur, sont celles relatives aux chemins de fer et au petit cabotage. Le tableau ci-dessous indique le tonnage des marchandises transportées par voies ferrées, dans tout le Royaume, pendant les années 1864 et 1865 :—

		En Angleterre et le Pays de Galles	En Écosse	En Irlande	Royaume- Uni
		Tonnes	Tonnes	Tonnes	Tonnes
Marchandises générales	{ 1864	28,802,262	4,577,483	1,535,168	34,914,913
	{ 1865	30,640,967	4,487,135	1,659,536	36,787,638
Charbons, coques, et autres minéraux	{ 1864	61,890,054	13,254,363	310,364	75,445,781
	{ 1865	63,892,007	13,556,710	357,069	77,805,786
Produits vivants :					
		Nombre	Nombre	Nombre	Nombre
Gros bétail	{ 1864	2,083,254	482,656	427,447	2,993,357
	{ 1865	1,874,020	488,762	407,048	2,769,890
Moutons	{ 1864	6,786,127	1,241,279	428,275	8,455,681
	{ 1865	7,001,654	1,819,125	515,632	9,336,411
Porcs	{ 1864	1,426,264	65,329	733,155	2,224,748
	{ 1865	1,448,731	88,388	887,577	2,424,696

Le tonnage général des marchandises transportées au cabotage pendant les cinq années comprises entre 1861 and 1865, était, pour le Royaume-Uni :—

	Navires britanniques	Navires étrangers	Totaux
	Tonnes	Tonnes	Tonnes
1861	17,261,779	93,456	17,355,235
1862	17,327,687	72,673	17,400,360
1863	17,465,635	81,897	17,547,532
1864	17,350,579	66,107	17,416,686
1865	18,150,649	77,705	18,228,354

NAVIGATION. — (a.) *Commerce extérieur.* — Le tonnage total des navires entrés et sortis (avec cargaison ou sur lest) concernant le commerce extérieur du Royaume-Uni pour les années 1856, 1860 et 1865 s'est élevé, savoir :—

(b.) *Cabotage.*—Un grand nombre de bâtiments sont employés au commerce de cabotage du pays. Les navires étrangers ont été admis à trafiquer sur les côtes, dès l'année 1854 ; les chiffres ci-après marquent les progrès qu'a faits cette industrie depuis 1856 :—

Tonnage des Navires (avec cargaisons) employés au petit cabotage.

	Britanniques	Étrangers	Total
En 1856	15,164,000	53,000	15,217,000
1865	18,150,000	78,000	18,228,000

(c.) *Tonnage appartenant au Royaume-Uni.* — Le tonnage total des navires du Royaume-Uni, enregistré au 31, décembre 1865, était de 4,936,776 tonneaux pour les bâtiments à voiles, et de 823,533 tonneaux pour les navires à vapeur. Celui des bateaux à hélice était de 255,654.

ADMINISTRATION DES POSTES.—Dans son

Années	Tonnage d'Entrée			Tonnage de Sortie			Totaux		
	Britannique	Étranger	Total	Britannique	Étranger	Total	Britannique	Étranger	Total
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
1856	6,390,715	4,162,419	10,553,134	6,555,056	4,480,859	11,035,915	12,945,771	8,643,278	21,589,049
1860	6,889,009	5,283,776	12,172,785	7,025,914	5,490,593	12,516,507	13,914,923	10,774,369	24,689,292
1865	9,623,432	4,694,454	14,317,886	9,735,523	4,843,683	14,579,206	19,358,955	9,538,137	28,897,092

dernier rapport, le Directeur-Général des postes disait que 'l'accroissement continu des affaires de l'administration des postes, pendant une longue suite d'années, permettait d'espérer, si la prospérité du pays ne décline pas, que le service postal, tout en n'épargnant aucun effort pour satisfaire aux justes demandes du public, et tout en marchant dans la voie des améliorations, donnera dans quelques années un revenu net presque égal au produit actuel de l' 'Income Tax' (Taxe sur les revenus).

L'augmentation des revenus, dans les dix dernières années comprises entre 1856 et 1865 a été :—

	Total du Revenu postal	Dépenses de l'admin. des Postes	Produit net
	£	£	£
1856	3,035,954	2,438,732	597,222
1865	4,423,608	2,941,086	1,482,522
Augmentation en faveur de 1865 }	1,387,654	502,354	885,300

Cette augmentation est le résultat de plus grandes facilités procurées au public en diminuant les prix d'affranchissement, en créant de nouveaux bureaux de poste, en installant un

plus grand nombre de boîtes aux lettres, et en faisant le service de la distribution avec plus de rapidité.

Voici le taux d'affranchissement des lettres à l'intérieur :—

Pour les lettres dont le poids n'excède pas une demi-once	1d.
Au-dessus d'une demi-once, mais ne dépassant pas 1 once	2d.
Au-dessus d'une demi-once, mais ne dépassant pas 1 once et demie	3d.
Au-dessus d'une once et demie, mais ne dépassant pas 2 onces	4d.

Et ainsi de suite, à raison d'un penny pour chaque demi-once ou fraction de demi-once en sus.

De grandes facilités sont également accordées pour la transmission des livres imprimés, et autres objets de même nature, moyennant une taxe de :—

Au-dessous de 4 onces	1d.
„ „ 8 „	2d.

et ainsi pour toute demi-livre additionnelle à ce dernier poids. Aucun paquet ne doit avoir plus de 24 pouces de longueur.

La poste se charge également de l'envoi des échantillons dont le poids ne dépasse pas 24 onces; ils doivent être affranchis à l'avance : 2 pence jusqu'à 4 onces; 4 p. au-dessous de 8 onces; 8 p. jusqu'à 1 livre, et 1 sh. pour 24 onces.

Le tableau ci-dessous indique quel a été, dans chacune des divisions du Royaume, le nombre de lettres, journaux, paquets et échantillons envoyés par la poste, en 1865 :—

Divisions	Lettres	Journaux, Livres, etc.	Échantillons
	No.	No.	No.
En Angleterre et le Pays de Galles	597,277,616	73,192,132	940,771
En Écosse	67,048,891	11,324,040	175,474
En Irlande	56,140,500	12,736,594	169,871
Dans le Royaume-Uni	720,467,007	97,252,766	1,286,116

Le Bureau des Mandats (*Money Order Department*) pour l'envoi des sommes d'argent forme une branche importante de l'administration des Postes. Moyennant une légère commission, on peut faire parvenir des fonds d'un bureau à l'autre dans toutes les parties du pays, sans courir aucun risque. Le système des Mandats *Postaux* est également en vigueur entre le Royaume-Uni et plusieurs de ses Colonies, et des négociations sont entamées dans le but d'étendre cette institution à divers états étrangers. Le montant total des mandats émis, dans le Royaume-Uni, en 1865, s'est élevé à 17,829,290l. et la valeur des mandats payés à 18,144,550l. sterling.

MESSAGES TÉLÉGRAPHIQUES.—On ne possède point d'informations complètes concernant le

nombre des télégrammes expédiés annuellement dans les différentes parties du pays. Les relevés statistiques des lignes télégraphiques, autant qu'il soit possible de les donner, figurent sous le titre de 'Télégraphes Electriques.'

ARMÉE.—Forces Régulières et Auxiliaires.

(a.) *Forces régulières*.—Le total des forces militaires britanniques, d'après le budget de 1866-67, est de 137,195 soldats de tous rangs à la solde de l'État, et 65,287 hommes, servant dans les Indes et entretenus aux frais du Gouvernement pour l'Inde. Les 178 Indous servant dans le Labuan sont également entretenus aux frais du Gouvernement britannique. Le tableau ci-dessous indique la nombre d'officiers, de soldats et de chevaux appartenant aux différentes branches du service militaire. Il faut remarquer que ces troupes ne sont pas toutes en garnison dans le Royaume-Uni; il y en a un nombre considérable qui servent dans les nombreuses colonies et dépendances de l'État.

(b.) *Forces Auxiliaires*.—Les forces auxiliaires du royaume sont formées de la milice, de la cavalerie des yeomans, des volontaires, des pensionnaires inscrits, et de la réserve.

La milice a un état-major permanent de 5,070 officiers and sous-officiers. Ce corps est appelé sous les armes une fois par an, et se livre aux exercices et manœuvres militaires pendant vingt-sept jours. On estime le chiffre total des miliciens à 3,507 officiers, 5,464 sous-officiers et 120,000 soldats pour la présente année.

La cavalerie des yeomans comprend 390 officiers et sous-officiers. Le service se réduit à huit jours d'exercice par an, et on évalue à 16,000 hommes environ les forces de ce corps pour l'année courante.

L'armée des volontaires se compose d'artillerie, de chevaux-légers, de génie et de tirailleurs. Le Gouvernement alloue une indemnité de trente shillings par tête aux artilleurs volontaires, et de vingt shillings aux chevaux-légers, aux soldats du génie et aux tirailleurs qui assistent à un nombre déterminé d'exercices et de manœuvres, dans le courant de l'année. Le corps des volontaires compte de 130,000 à 140,000 hommes.

MARINE ROYALE.—Flotte — Gardes-côtes—Troupes de Marine—Vaisseaux.

Les relevés ci-après, concernant les forces de la Marine Royale ont été extraits des 'Navy Estimates' (budget de la marine) de 1866-67.

(a.) *Flotte—Service de Mer.*

	Nombre
Chefs d'escadre	210
Officiers d'arsenaux et d'établissements navals	57
Officiers commissionnés et autres ayant rang sur les officiers subalternes	3,676

<i>Troupes à la Solde de l'État.</i>	Officiers	Sous-Officiers	Soldats	Total	Nombre de Chevaux
Régiments :					
Artillerie royale à cheval	86	132	1,720	1,938	1,356
École d'équitation	7	13	205	225	122
Gardes du corps et Gardes à cheval	99	192	1,029	1,320	825
Cavalerie	578	1,035	8,415	10,028	5,889
Artillerie royale	799	1,712	14,250	16,761	2,421
Génie	398	374	3,918	4,690	307
Soldats du train	92	183	1,521	1,796	996
Gardes à pied	257	446	5,250	5,953	—
Infanterie de ligne	3,740	6,914	65,510	76,164	—
Service des hôpitaux militaires	1	220	779	1,000	—
Intendance	1	112	488	601	—
Adm. des approvisionnements militaires	1	31	168	200	—
Régiments des Indes-occidentales	196	271	3,000	3,467	—
Corps coloniaux	157	326	3,586	4,069	450
	6,412	11,961	109,839	128,212	12,366
Dépôts, dans le Royaume-Uni, des Régiments des Indes	437	974	7,572	8,983	460
Total des Troupes britanniques	6,849	12,935	117,411	137,195	12,826
État-major général	93	—	—	93	—
Personnel du recrutement et employé dans les écoles de tir (à l'exception d'un certain nombre d'officiers compris dans les régiments)	178	278	92	548	28
Établissements d'éducation	30	241	10	281	—
Total des forces à la charge du budget de l'armée	7,150	13,454	117,513	138,117	12,854
Forces britanniques dans les Indes (soldées par le budget des Indes).					
Artillerie royale à cheval	200	249	2,680	3,129	—
Cavalerie	352	603	4,466	5,421	—
Artillerie royale	699	790	8,140	9,629	—
Génie	336	—	—	336	—
Infanterie de ligne	2,028	3,664	41,080	46,772	—
Total	3,615	5,306	56,966	65,287	—

Officiers subalternes, etc.	1,911
Sous-officiers et marins	31,446
Mousses (y compris 2,750 jeunes gens des vaisseaux-écoles)	7,000
	44,330

(b.) *Service des Gardes-Côtes.*

En mer—officiers, marins et mousses	2,950
À terre—officiers et gardes	4,200
	7,150
Employés civils	550

(c.) *Troupes de Marine.*

Officiers de l'état-major	120
„ commissionnés	420
Sous-officiers et soldats	15,860

Total (8,000 hommes pour le service en mer; 8,400 pour le service de terre) } 16,400

Total des forces navales et du service des gardes-côtes } 68,400

(d.) *Vaisseaux, etc., Marine Royale.*—Tableau du nombre de bâtiments à vapeur, à flot et en construction, et de celui des navires à voiles également à flot au 1^{er} février 1866. *Voyez* p. 157.

MARINE MARCHANDE.—(a.) *Marins.*—Le nombre total des équipages appartenant aux navires enregistrés de la marine marchande britannique était, au 31 décembre 1865, de 255,654 hommes.

(b.) *Navires marchands.*—Le nombre et le

tonnage des navires de la marine marchande du Royaume-Uni étaient, au 31 décembre 1865 :

	Nombre	Tonnage
Bâtiments à voiles	26,069	4,936,776
Bâtiments à vapeur	2,718	823,533
Total	28,787	5,760,309

FINANCES.—**Recettes—Dépenses—Branches de Revenu—Taxes abolies—Branches de Dépenses—Budget—Dette Nationale.**

Le revenu du Royaume-Uni se compose de contributions directes et indirectes. Les principales branches des premières sont les *assessed taxes*, les taxes sur le revenu et l'impôt foncier; celles des dernières sont les droits de douane, l'accise et les droits de timbre.

Le total général des recettes et des dépenses de l'état pendant les trois dernières années s'est élevé, savoir :—

Années terminées au 31 mars	Revenus £	Dépenses £
1864	70,208,964	67,056,286
1865	70,313,437	66,462,207
1866	67,812,292	65,914,357

Comme on le voit, chaque budget présente un excédant de recettes considérable. Dans le chiffre des dépenses ne sont pas comprises celles relatives aux fortifications, qui s'élèveront respectivement pour chacune des années ci-dessus à 800,000£, 620,000£, et 560,000£. aux-

Classes de Navires	Navires à Vapeur			Navires à voiles à flot (effectifs)	Total	
	À flot	En construction	Total			
<i>Navires blindés :—</i>						
Navires de 3 ^e rang	{ en fer à hélices	8	1	9	—	9
	{ en bois „	7	—	7	—	7
„ 4 ^e rang	{ en fer „	2	—	2	—	2
	{ en bois „	1	—	1	—	1
Navires à tourelles, 4 ^e rang	{ en fer „	1	—	1	—	1
	{ en bois „	1	—	1	—	1
„ „ 6 ^e rang	en fer „	2	—	2	—	2
Corvettes, 6 ^e rang	{ en fer „	—	1	1	—	1
	{ en bois „	2	—	2	—	2
Sloops, en bois „		2	—	2	—	2
Canonnières, fer „		2	—	2	—	2
„ „ „ „ hydrauliques		—	1	1	—	1
Batteries flottantes { en fer à hélices		3	—	3	—	3
	{ en bois „	1	—	1	—	1
<i>Non-blindés :—</i>						
Vaisseaux de ligne à hélices		55	3*	58	1	59
Frégates „		38	—	38	10	48
„ „ „ „ à aubes		5	—	5	—	5
Bâtiments de blocus à hélices		2	—	2	—	2
Corvettes „		25	—	25	—	25
Sloops „		32	6	38	1	39
„ „ „ „ à aubes		14	—	14	—	14
Petits navires „		12	—	12	—	12
Paquebots (pour les dépêches) „		4	—	4	—	4
Vaisseaux à canons à hélices		33	3*	36	—	36
Canonnières „		96	4*	100	—	100
Bâtiments de servitude, remorqueurs, etc.		8	—	8	—	8
„ „ „ „ à aubes		39	2	41	—	41
Bâtiments à mortier à hélices		2	—	2	—	2
Transports „		15	5†	20	—	20
„ „ „ „ à aubes		1	—	1	—	1
Yachts à hélices		1	—	1	—	1
„ „ „ „ à aubes		5	—	5	—	5
Bâtiments d'inspection (sondage) à hélices		—	2	2	—	2
Vaisseaux à mortier et forts flottants „		—	—	—	38	38
Total—à hélices		339	26	365		
„ à aubes		80	2	82		
Total général		419	28	447	50	497

* La construction de 3 vaisseaux de ligne, de 2 vaisseaux à canons, et d'une canonnière a été suspendue.

† Transports pour le service des Indes.

quelles il a été pourvu par la création d'annuités rachetables.

(a.) *Branches du Revenu.*—Il suffira pour faire connaître les principales sources du revenu de l'Etat, de mentionner les chiffres qui se rapportent à l'année terminée au 31 mars 1866, et qui se répartissent comme suit :—

Branches du Revenu	Revenu total (les frais de perception ne sont pas déduits)
Droits de douane	£21,276,000
Accise	19,788,000
Timbre	9,560,000
Assessed taxes	3,350,000
Impôts sur les revenus et } impôts fonciers*	6,390,000
Administration des postes	4,250,000
Terres de la couronne	320,000
Divers	2,878,292
Total	67,812,292

* Par suite de la réduction de l'impôt sur les revenus (Income Tax) à 4d. par livre sterling, le montant qui figure dans la colonne ci-dessus pour cette branche du revenu de l'Etat est considérablement inférieur à ceux des années précédentes.

Il peut être intéressant d'indiquer ici la catégorie des articles qui ont alimenté le revenu des douanes et de l'accise pendant l'année mentionnée plus haut.

Les recettes de la douane proviennent presque entièrement du droit acquitté par les sept articles que voici :—

	En 1866 £
Sucre et mélasses	5,228,460
Thé	2,599,817
Café	371,495
Céréales et farines	743,145
Spiritueux	3,505,176
Vins	1,407,021
Tabacs	6,274,298

La taxe sur le thé ayant été réduite à 6d. par livre, les recettes de la douane pour cet article sont nécessairement bien inférieures à ce qu'elles étaient les années précédentes.

Les principales sources du revenu de l'accise en 1865 étaient :—

Les spiritueux	10,176,731
Le malt	6,394,553
Les licences	2,144,402

Taxes abolies, etc.—Le tableau ci-dessous indique le montant des taxes abolies ou réduites et celui des taxes imposées, pendant les 15 années comprises entre 1851 et 1865 :—

Branches	Taxes abolies ou réduites	Imposées	Diminution (—) ou Augmentation (+)
	£	£	£
Douanes . . .	14,089,384	3,293,396	—10,795,988
Accise . . .	5,161,000	6,380,000	+ 1,219,000
Impôt foncier et income tax	18,865,006	14,764,000	— 4,101,000
Autres taxes . . .	2,608,000	600,000	— 2,008,000
Timbre (y compris les droits de successions) . . .	1,428,000	2,411,200	+ 983,200
Total . . .	42,151,384	27,443,596	—14,707,788

(b.) *Branches des Dépenses de l'État.*—Les principales branches des dépenses pour l'année terminée au 31 mars 1866, étaient :—

Intérêts et frais d'administration de la dette nationale :—

	£
Dette consolidée . . .	25,904,408
„ non consolidée . . .	328,800
Total de la dette . . .	26,233,288
Liste civile et charges de toutes sortes . . .	10,250,065
Forces : armée de terre . . .	14,569,279
„ marine . . .	10,259,788
Total de forces . . .	24,829,067
Frais de perception du revenu . . .	4,601,937
Total général de la dépense . . .	65,914,357

(c.) *Budget, 1866-1867.*—L'estimation du revenu pour l'année terminée au 31 mars, 1867, est évaluée à 67,013,000*l.* et celle de la dépense à 66,662,000*l.*

(d.) *Dette nationale.*—Le montant totale de la dette nationale au 31 mars 1866, était :—

Dette consolidée : . . .	£
Capital de la dette non amortie . . .	773,313,229
Capital estimé des annuités rachetables . . .	21,342,020
Dette non consolidée . . .	8,187,700

TAXES LOCALES.—Le montant des taxes locales a été constaté, depuis l'année 1862, pour l'Angleterre et le Pays de Galles seulement, et il n'existe aucuns relevés analogues concernant les autres divisions du Royaume. Les différentes branches des taxes locales de l'Angleterre et du Pays de Galles, en 1864, étaient (non compris les administrations d'enterrement, *Burial Boards*) :—

Détail des taxes	Montant de Perceptions
	£
Taxes de l'Église . . .	241,960
„ des égoûts . . .	44,009

Détail des taxes, etc.	Montant de Perceptions
	£
Commission des égoûts de la cité de Londres . . .	17,242
Drainage et remblayage . . .	147,145
Eclairage, etc. . .	42,194
Commissaires des améliorations . . .	332,983
Métropole : Adm. locale . . .	850,504
Drainage général . . .	150,881
Marchés et foires . . .	44,547
Ponts et bacs . . .	108,773
Ports . . .	1,107,751
Administrations locales (y compris la caisse des districts, les améliorations particulières, et la taxe pour l'approvisionnement de l'eau . . .	352,016
Taxe des pauvres (y compris la taxe des Comtés et la taxe de la Police) . . .	9,448,319
Taxe de la Police métropolitaine . . .	354,627
Cité de Londres (y compris les droits sur les charbons et les vins et les taxes des égoûts, de la Police et des arrondissements . . .	421,625
Revenu des bourgs . . .	311,953
„ des voies de grande communication . . .	1,416,629
Droits de péage . . .	1,066,156
Trinity House (droits de phares et de pilotage) . . .	374,115
Total . . .	16,833,429

Banques.—Le nombre total des banques existant en 1864, dans chacune des divisions ci-après du Royaume-Uni, était :

	En Angleterre et le Pays de Galles	En Écosse	En Irlande	Dans le Royaume-Uni
Banques d'Angleterre et d'Irlande et leurs succursales, etc. . .	12	—	30	42
Banques particulières et leurs succursales . . .	553	—	4	557
'Joint - Stock Banks' (banques par actions) et leurs succursales . . .	857	614	181	1,652
Total . . .	1,422	614	215	2,251

La valeur moyenne des billets à ordre issus des banques particulières, en 1864, a été de 3,112,725*l.* ; et de 33,286,921*l.* pour les Joint-Stock Banks.

Statistiques de l'ensemble des sommes auxquelles se sont élevés les billets à ordre payables à vue au porteur, et qui se trouvaient en circulation, dans le dernier mois de chacune des années 1863, 1864 et 1865, en Angleterre : le Pays de Galles, l'Écosse et l'Irlande—

	1863	1864	1865
	£	£	£
En Angleterre et le Pays de Galles :			
Banque d'Angleterre . . .	21,355,000	20,330,000	21,294,000
Banques particulières . . .	3,220,036	3,058,931	2,977,264
'Joint - Stock Banks' . . .	2,899,560	2,754,068	2,789,654
En Écosse :			
Banques existant en vertu d'une charte ; banques particulières et 'Joint - Stock Banks' . . .	4,639,664	4,626,796	4,903,980
En Irlande :			
Banque d'Irlande	2,528,500	2,491,000	2,744,950
Banques particulières et 'Joint - Stock Banks' . . .	3,411,753	3,381,706	3,946,290
Total . . .	38,054,513	36,642,501	38,656,138

jugeaient les plus avantageux, et enfin de provoquer les lois de 1856, 1857, 1862 et celle de 1865. Cette dernière loi, quoique laissant beaucoup à désirer encore, a permis aux gens d'affaires, associés en grand ou petit nombre, d'emprunter du capital, et de le faire produire de la manière la plus avantageuse.

L'introduction du principe de la responsabilité limitée a donné naissance à un grand nombre de nouvelles compagnies ; et beaucoup de maisons de commerce particulières, dans tout le Royaume, se sont, pendant les deux dernières années, formées en compagnies limitées, avec la persuasion d'obtenir ainsi de bien meilleurs résultats que sous le régime qu'elles avaient suivi jusqu'alors.

ÉDUCATION.—Générale—Instruction primaire —Écoles de la Semaine—Écoles du dimanche—Sciences et Arts—Examens de la Classe moyenne.

Le système d'éducation du Royaume-Uni est excessivement compliqué. L'enseignement est entièrement libre ; chacun peut, à sa guise, fonder des écoles, réunir des enfants et leur apprendre ses doctrines. Jusqu'en 1833, l'État ne prit aucune part à l'éducation du peuple, mais à partir de cette époque il commença et continue encore à accorder, sous certaines conditions, des subventions aux écoles primaires. Le Département de Science et d'Art (fondée en 1853) est également entretenue aux frais de l'État, ainsi que diverses autres institutions pour l'encouragement des sciences.

Une liste des différents collèges, écoles, etc., et autres institutions analogues, sera peut-être le meilleur moyen de faire comprendre le système de l'instruction publique du pays :—

1. Écoles primaires pour la semaine et le dimanche.
2. Écoles normales, d'où sortent les instituteurs des établissements primaires.
3. Écoles particulières.
4. Écoles publiques (dotées, dites 'grammar' ou 'foundation schools').
5. Écoles publiques, telles que école militaire, navale, des bois et forêts, des corporations, des maisons de refuge, des prisons, etc.
- Asiles des indigents, des orphelins, des aveugles, des sourds et muets, des idiots, écoles industrielles, attachées aux fabriques, aux houillères, aux établissements chimiques, etc.
6. Universités et collèges.
7. Instruction à domicile et classes particulières.
8. Examens locaux ou de la classe moyenne, organisés par le Collège des Précepteurs, en 1854, par la Société des Arts, en 1856, et par les Universités d'Oxford et de Cambridge en 1858.
9. 'Mechanics' institutes' (pour les artisans) écoles d'ouvriers et classes du soir.

RESPONSABILITÉ LIMITÉE.—On peut faire ici une rapide allusion aux changements récents apportés dans la responsabilité des associations financières et de toutes les grandes entreprises commerciales. Les paragraphes suivants sont extraits d'un article lu devant la Société des Arts par M. W. Hawes :—

'Avant ces quelques dernières années, deux sortes d'associations commerciales étaient en usage dans ce pays. L'une consistait dans la réunion de plusieurs individus associés dans un but d'intérêt commun, et qui exerçaient leur négoce sous la protection de chartes royales, ou, plus récemment, étaient réglementés par des actes du Parlement qui limitaient strictement la responsabilité des associés au montant de leur apport. L'autre association se composait de particuliers faisant les affaires en leur propre nom ou collectivement ; ils étaient régis par des conventions ou contrats passés entre eux, et ils acceptaient une responsabilité qui engageait toute leur fortune personnelle pour payer les dettes de la compagnie.

'Toutefois, ce dernier genre d'association de un ou de plusieurs individus, à responsabilité illimitée, a toujours prévalu, et la grosse masse des affaires commerciales du pays ont été conduites sous son régime.

'Le rappel des lois sur l'usure, l'augmentation du nombre des patentes et des actes du Parlement, les uns et les autres ayant pour base la responsabilité limitée, et l'accroissement de notre commerce extérieur avec des États où le principe de la responsabilité limitée était ordinairement en usage dans les associations commerciales, toutes ces causes ont eu pour résultat d'attirer le capital vers les opérations du négoce, de détruire l'obstacle qui empêchait les individus de faire, pour l'exploitation de leur industrie, tels contrats qu'ils

Toutes ces écoles ou institutions peuvent être considérées comme appartenant à l'instruction ordinaire. Celles dont la nomenclature vient ci-après ont surtout pour objet de vulgariser l'éducation des arts et des sciences :—

Le Département de Science et d'Art, ayant des écoles succursales dans tout le pays.

L'École Royale d'Architecture Navale et d'Ingénieurs de la Marine.

L'École Royale des Mines.

Le Musée des Sciences et des Arts d'Édimbourg.

Le Musée de l'Industrie Irlandaise.

La Société Royale de Dublin ; et beaucoup d'autres encore.

Les Académies Royales de Peinture et de Musique méritent également d'être particulièrement mentionnées comme contribuant, à un haut degré, à l'épuration du goût national. Les avocats, les avoués, les chirurgiens, les pharmaciens, etc., doivent aussi subir un examen avant d'être autorisés à exercer leur profession. Il en est de même pour les candidats de l'armée, de la marine et des services civils ; ils ne sont pas admis sans avoir satisfait aux conditions du programme de l'examen.

Il serait difficile de donner en quelques lignes des renseignements généraux sur chaque sorte d'écoles, etc., etc. Toutefois, elles peuvent être divisées en deux catégories—1^o les *Écoles Particulières*, et 2^o les *Écoles Publiques*. Les premières sont tout à fait entretenues par les élèves, et elles comptent sur leurs bancs la majeure partie des enfants appartenant à la haute et à la moyenne classe de société. Les secondes comprennent toutes ces écoles dont une portion du revenu leur provient de toute autre source que des élèves ; c'est à cette catégorie qu'appartient l'éducation des classes laborieuses de la population ; et il peut être intéressant de donner ici quelques informations relatives aux moyens employés pour leur instruction.

Instruction primaire.—1. Grande-Bretagne.

—On a déjà dit que l'État a commencé à venir en aide aux écoles primaires du Royaume en 1833. Jusqu'à cette époque, l'enseignement des classes moyennes du peuple dépendait entièrement de libéralités particulières où le zèle religieux avait la plus grande part, et c'est principalement par l'intermédiaire des deux grandes sociétés, la *Britannique* et la *Nationale*, que l'éducation était répandue quotidiennement dans les masses.

De 1839 à 1866, le gouvernement a consacré à la cause de l'éducation populaire dans la Grande-Bretagne, 8,724,000 livres sterling. Les sommes annuellement votées par le Parlement pour le même objet sont administrées par le Département de l'Instruction Publique. Le

but de ces subsides est d'encourager et de répandre l'éducation parmi les enfants appartenant aux classes qui gagnent leur vie par un travail manuel. L'énumération des conditions auxquelles sont subordonnées les subventions de l'État, est trop longue pour permettre de l'insérer ici, mais on trouvera à cet égard tous les renseignements désirables dans le rapport du Comité du Conseil d'Instruction.

D'après la dernière statistique pour l'année 1865, les inspecteurs visitèrent 12,950 écoles ou classes ayant chacune séparément leurs professeurs. Le nombre des enfants présents au moment des inspections était de 1,246,055 ; celui des instituteurs brevetés, de 11,266 ; celui des sous-maîtres, de 933 ; plus 11,383 élèves instituteurs. Sur le chiffre total des écoles, il y en avait 2,282 pour les garçons seulement ; 1,888 pour les filles ; 5,858 écoles mixtes ; 1,707 pour les enfants au-dessous de 7 ans, et 1,215 écoles du soir. Le nombre des enfants présents se composait de 698,221 élèves du sexe masculin, et 547,834 du sexe féminin.

Il faut rappeler ici, toutefois, qu'il existe un assez grand nombre d'écoles primaires qui ne sont pas placées sous la surveillance du Département de l'instruction.

Le tableau ci-après indique les branches de recettes et de dépenses de 7,770 des écoles inspectées dans le courant de l'année 1865 :—

Branches de Recettes	Montant	Branches de Dépenses	Montant
	£		£
Dotations	56,424	Honoraires des instituteurs	980,056
Contributions volontaires	356,810	Livres et matériel	53,389
Denier des écoliers	424,547	Divers	256,956
Subventions de l'État	322,846		
Autres recettes	98,299		
Total	1,258,926	Total	1,290,401

La moyenne totale du revenu et de la dépense par élève était :—

	En Angleterre et le Pays de Galles	En Écosse
	£ s. d.	£ s. d.
Y compris les subventions de l'État :		
Revenu	1 5 8 $\frac{3}{4}$	—
Dépense	1 6 5 $\frac{1}{2}$	—
Non compris les subventions de l'État :		
Revenu	0 18 2 $\frac{3}{4}$	0 18 1 $\frac{1}{2}$
Dépense	0 18 11 $\frac{1}{2}$	0 18 0 $\frac{1}{2}$

* En Écosse, les subventions du gouvernement sont payés aux professeurs et aux sous-maîtres directement, et elles ne sont pas comprises dans les fonds placés à la disposition des directeurs.

Age des Écoliers.—En 1865, 71 pour cent du nombre total des élèves avaient moins de dix ans, 27 pour cent avaient de dix à quatorze ans, et 2 pour cent étaient âgés de plus de quatorze ans.

Honoraires des Instituteurs.—La moyenne annuelle des honoraires payés aux professeurs d'écoles subventionnées par l'État était, en 1865, pour la Grande-Bretagne :—

	Brevetés	Non-brevetés
	£ s. d.	£ s. d.
Instituteurs	86 10 9	58 16 4
Institutrices	55 2 1	38 8 5
des écoles pour l'enfance	52 3 3	30 1 1

2. *Écoles Nationales, en Irlande.*—L'éducation primaire, en Irlande, est sous la direction du Conseil de l'Instruction Nationale. Dans les écoles irlandaises les principes religieux sont enseignés à part de l'instruction ordinaire. Le nombre total des écoles nationales en Irlande, à la fin de 1864, était de 6,263, fréquentées par une moyenne quotidienne de 315,108 élèves. Le montant du revenu était de 340,758*l.*, dont 251,016*l.* de subvention de l'État. On comptait également, à cette même date, 35 écoles modèles et 55 écoles ordinaires d'agriculture, et 3 kindergarten. Le salaire des professeurs de 1^{re} classe variait de 38*l.* à 42*l.* par an; celui des institutrices de 30*l.* à 42*l.*, et le traitement des instituteurs subalternes variait selon l'importance de leurs fonctions, tout en restant inférieur à ce dernier chiffre.

Statistiques générales.—Les tableaux ci-après contiennent les plus récents relevés statistiques du nombre total de personnes fréquentant les écoles de tous genres en Angleterre et le Pays de Galles :—

Écoles	Écoliers		
	Du Sexe masculin	Du Sexe féminin	Total
Écoles de la semaine :			
Publiques	24,563	911,152	764,006
Particuliers	34,412	389,607	470,697
Total	58,975	1,300,759	1,234,703
Écoles du dimanche	33,872	1,189,725	1,221,829
			2,535,462

Le relevé ci-dessus a été fait en 1858, et il s'applique aux écoles de toutes les sectes religieuses sans distinction.

D'après le recensement de 1861, le nombre total des écoliers des deux sexes dans chacune des grandes divisions du Royaume-Uni était :—

Divisions	Écoliers		
	Sexe masculin	Sexe féminin	Total
En Angleterre et le Pays de Galles	1,552,738	1,597,310	3,150,048
En Écosse	241,803	225,253	467,056
En Irlande	342,997	305,380	648,377
Dans le Royaume-Uni	2,137,538	2,127,943	4,265,481

Éducation scientifique et artistique.—Il résulte du dernier rapport du Département de Science et d'Art pour 1865, qu'il y avait, à cette date, 158 Écoles de science et institutions (non compris six écoles de navigation), où les connaissances scientifiques étaient enseignées par des professeurs brevetés. De ce nombre, 121 écoles appartenaient à l'Angleterre, 8 à l'Écosse et 29 à l'Irlande, contenant en tout 484 classes fréquentées par 6,835 étudiants.

Il existait, à la même époque, 92 Écoles d'art, fréquentées par 16,621 étudiants; de plus elles démontraient les principes élémentaires de l'art à 89,967 enfants des institutions primaires.

Outre l'assistance qu'il accorde aux classes industrielles pour les aider à acquérir les connaissances scientifiques et artistiques, qui ont un rapport direct avec leurs occupations, le Département est chargé de l'administration du Musée de South Kensington, dépôt central d'objets modèles de science et d'art, que l'on cherche, autant que possible, à rendre profitables à tous dans le royaume.

Examens de la Classe moyenne.—En 1854, l'institution fondée par le 'Collège des Précepteurs' pour l'examen des élèves dans les écoles, donna une grande impulsion au développement de l'éducation parmi les classes moyennes. De son côté la Société des Arts commença, en 1856, à mettre à exécution son plan d'examen des personnes fréquentant les 'Mechanics' Institutions' (Institutions des Artisans); et enfin les Universités d'Oxford et de Cambridge établirent, en 1858, ce qui est connu sous le nom de 'University Local Examinations.' Le nombre des candidats examinés par ces différents corps, dans plusieurs parties du pays, s'élevait à 587 en 1854 et est arrivé graduellement au chiffre de 5,438, qu'il atteignait à la fin de l'année 1866. Les examens faits par l'Université de Cambridge, le Collège des Précepteurs et la Société des Arts, sont ouverts aux personnes des deux sexes; ceux de l'Université d'Oxford sont, pour le présent, limités aux individus du sexe masculin seulement.

Voici le nombre de candidats qui se sont présentés aux examens pendant l'année 1866 :—

De l'Université d'Oxford	1,228
De l'Université de Cambridge	1,538
Du Collège des Précepteurs	1,575
De la Société des Arts	1,027

On ne saurait trop apprécier l'importance de ce mouvement, qui a déjà apporté de grandes améliorations dans l'éducation des classes moyennes, surtout dans les écoles particulières.

ASSURANCES.—Sur la Vie et Maritimes— Contre l'Incendie.

(a.) *Sur la Vie et Maritimes.*—Les Compagnies d'Assurances Maritimes et sur la Vie n'étant pas tenues de faire des rapports sur leur situation, on ne possède, par suite, aucuns renseignements statistiques concernant le chiffre de leurs affaires. Toutefois, on a constaté que les dernières ont pris une extension considérable pendant les quinze dernières années.

(b.) *Contre l'Incendie.*—Les polices des Compagnies d'Assurances sur la Propriété et le Matériel de l'Agriculture ayant, tous les ans, à acquitter un droit de timbre, il est dès-lors possible, en se référant aux relevés de l'administration du fisc, de connaître le chiffre de la valeur couverte par les assurances. Cette valeur était, en 1864, pour chacune des grandes divisions du royaume, savoir :—

Divisions	Valeur estimative des propriétés assurées	Valeur estimative du matériel d'agriculture assuré
	£	£
En Angleterre et le Pays de Galles	1,101,444,000	69,455,000
En Écosse . . .	92,234,000	6,564,000
En Irlande . . .	58,202,000	1,151,000
Total . . .	1,251,880,000	77,170,000

Le matériel d'agriculture est exempt du droit de timbre. Les assurances contre l'incendie acquittent un droit de 1s. 6d. par chaque somme assurée de 100 livres sterling.

INSTITUTIONS SE RATTACHANT AU BIEN-ÊTRE DES CLASSES LABOUREUSES.—Caisses d'Épar- gnes—Post Office Savings Banks—An- nuités et Assurances—Sociétés Mutuelles —Sociétés Co-opératives, etc.

(a.) *Caisses d'Épargne.*—Il existe actuellement deux sortes de caisses d'épargne. 1^o Celles qui fonctionnent depuis l'année 1817; et 2^o les 'Post Office Savings Banks' (Caisses d'Épargne de l'Administration des Postes) qui furent établies en 1861.

Une banque de dépôts pour les marins a été récemment institué à Liverpool, à titre d'essai, sous la surveillance du Ministère de Commerce. Les dépôts ne produisent aucun intérêt, mais un matelot peut, en tout temps, y verser des sommes d'argent, et les retirer à volonté. Les gens de mer qui s'embarquent pour un voyage peuvent faire opérer le transfert de leur argent sur un livret de caisse d'épargne, et, dans ce cas, ils touchent un intérêt de trois pour cent. par an.

Le tableau suivant, établi d'après les comptes-rendus présentés, le 20 novembre 1865, par les caisses d'épargne, aux Commissaires de la

Dettes Nationale, contient le nombre de particuliers, d'institutions charitables, et d'associations de secours mutuels, qui ont déposé leurs fonds dans les anciennes caisses; il renferme également, divisé par catégories, le montant des sommes déposées.

	Nombre de Déposants	Montant des Dépôts (y compris les intérêts)	Moyenne du Montant de chaque Compte
Au 20 novembre 1865			
N'excédant pas £1	251,820	£ 69,058	£ s. d. 0 5 5
" " 5	275,785	702,116	2 10 11
" " 10	177,384	1,250,381	7 0 1
" " 15	125,516	1,510,850	12 0 8
" " 20	79,577	1,369,962	17 4 4
" " 30	134,817	3,247,909	24 1 10
" " 40	103,926	3,491,997	33 12 0
" " 50	56,991	2,529,887	44 7 10
" " 75	94,197	5,732,215	60 17 0
" " 100	46,454	4,022,759	86 12 0
" " 125	32,413	3,589,615	110 14 10
" " 150	18,692	2,545,825	136 4 0
" " 200	30,887	5,298,967	171 10 11
Excédant 200	2,152	450,302	209 4 3
Dépôts particuliers	1,430,611	35,811,843	25 0 10
Banques au denier	891	65,426	73 7 3
Institutions charitables	14,446	696,768	48 4 0
* Sociétés de secours mutuels	11,619	1,869,970	161 0 0
Total	1,457,567	38,444,007	26 7 8

* Les chiffres représentant le nombre et le montant des dépôts des sociétés mutuelles ne concernent que celles de ces associations qui ont leurs fonds placés dans les caisses d'épargne, et non pas celles qui déposent leur argent directement entre les mains des commissaires.

Le nombre des sociétés mutuelles en compte direct avec les commissaires, au 20 novembre 1865, était de 545; montant des dépôts, 1,915,703l. sterling; moyenne du montant de chaque compte, 3,496l.

(b.) *Post Office Savings Banks.*—La situation des Caisses d'Épargne de l'Administration des Postes, au 38 décembre 1865, présentait l'aspect suivant :—

Nombre de 'Post Office Savings Banks' . . .	3,321
Nombre de Dépôts reçus depuis le 16 septembre 1861	3,895,135
Montant total des dépôts . . .	£ 11,834,979
Moyenne du montant de chaque dépôt . . .	3l. 0s. 9d.
Total des sommes retirées depuis le 16 septembre 1861	£ 5,619,250
Montant moyen de chaque retrait . . .	5l. 11s. 1d.
Frais généraux . . .	141,375
Moyenne de la dépense par dépôt ou retrait . . .	6 ⁹ / ₁₀ d.
Montant total au crédit de tous les comptes ouverts, y compris les intérêts, à la date du 31 décembre 1865 . . .	£ 6,526,400

prennent aucuns frais accessoires, il y aura

Moyenne du montant figurant au crédit de chaque compte ouvert, au 31 décembre 1865 .	10 <i>l</i> . 13 <i>s</i> . 4 <i>d</i> .
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Les Post Office Savings Banks sont établis dans tous les bureaux du Royaume-Uni où se paient et se délivrent journellement pendant certaines heures déterminées, les mandats ou bons de postes.

Ces caisses d'épargne reçoivent des dépôts de un shilling ou plus, sans toutefois que la somme déposée puisse dépasser trente livres sterling pour la même année, ou plus de cent cinquante livres en tout, non compris les intérêts.

Un intérêt annuel de 2*l*. 10*s*. (ce qui représente un taux de 6*d*. par livre et par an, ou d'un demi penny par livre et par mois, à compter du 1^{er} du mois qui suit le dépôt complétant la livre jusqu'au dernier du mois précédant le jour du retrait de la somme) est payé jusqu'à ce que la somme due au déposant s'élève à deux cents livres; à partir de ce moment, les intérêts cessent de courir. Au 31 décembre de chaque année les intérêts revenant aux déposants sont ajoutés à leur capital respectif.

(c.) *Annuités et Assurances.*—Ce qui distingue encore les caisses d'épargne, c'est qu'elles concèdent des annuités. Le montant de celles accordées par les anciennes caisses d'épargne aux classes laborieuses ne dépasse pas 30*l*. chaque, tandis que, de la façon dont sont organisées celles de l'Administration des Postes, on peut à la fois toucher des annuités et se faire assurer.

Voici quelques-unes des principales règles concernant le Bureau des Assurances et Annuités du Gouvernement :—

Le Directeur-Général des Postes, en vertu de l'Acte 27 & 28 *Victoria*, cap. 43, est autorisé à assurer la vie de personnes des deux sexes âgées de 16 à 60 ans, pour une somme qui ne peut être moindre de 20*l*., ni dépasser 100*l*. Il est également autorisé, par les dispositions du même Acte, à concéder des annuités immédiates ou différées, pour une somme n'excédant pas 50*l*., sur la vie des personnes des deux sexes âgées de dix ans et au-dessus. L'État se porte garant du remboursement des sommes aux époques voulues, envers les personnes dont la vie est assurée, ou auxquelles ont été accordées des annuités par le Directeur-Général des Postes.

Un certain nombre de bureaux de postes, dont il est facile de se procurer les noms, ont été ouverts pour la réception des demandes d'assurances sur la vie et d'achat d'annuités; on trouve dans ces mêmes bureaux des formes pour propositions avec toutes les indications concernant la manière de les remplir, et de les faire parvenir à leur destination propre. Des tables faisant connaître les primes à payer pour les assurances sur la vie, pour la concession d'annuités immédiates, pour la concession d'annuités différées, ou d'allocations mensuelles différées, sans restitution du prix

d'achat, et pour la concession d'annuités différées, on d'allocations mensuelles différées avec remboursement du prix d'achat, ont été imprimées et peuvent être consultées dans les bureaux de postes qui ont été désignés pour recevoir les demandes d'assurance. Le coût des tables pour les assurances sur la vie et la concession d'annuités sans restitution du prix d'achat, est de 3*½**d*.; les tables relatives aux annuités avec remboursement du prix, coûtent 2*d*. Si elles sont envoyées par la poste, ce prix est respectivement de 5 et de 3 pence.

Les primes à payer pour les assurances sur la vie varient selon l'âge des personnes à assurer et selon le mode de paiement des primes.

Toute annuité ou allocation mensuelle concédée ne peut excéder 50*l*. par an ou 4*l*. 3*s*. 4*d*. par mois. Il n'est pas nécessaire d'acheter l'annuité ou l'allocation mensuelle en une seule fois; cet achat peut se faire par fractions et progressivement selon que les moyens de l'acheteur le lui permettent.

Le mari et la femme ont la faculté de se faire assurer chacun pour le maximum de la somme, c'est-à-dire pour 100*l*., et ils peuvent l'un et l'autre acheter une annuité de 50*l*. ou une allocation mensuelle de 4*l*. 3*s*. 4*d*. Deux personnes peuvent obtenir conjointement, sur leur existence, une annuité, avec ou sans jouissance au survivant.

Les personnes ayant contracté un engagement d'assurance sur leur vie, ou acheté des annuités ou des allocations mensuelles, pourront verser leurs primes périodiques ou leurs à-comptes sur le prix d'achat indifféremment et selon leur convenance dans un des bureaux actuellement ouverts, ou qui pourront l'être par la suite dans ce but.

Toute personne désirant se faire assurer, ou qui voudrait acheter des allocations mensuelles différées, devra se procurer, à ses frais, le certificat de sa naissance ou autre pièce authentique pouvant constater son âge, et qui pourrait lui être réclamée; mais elle n'aura rien à payer pour se faire visiter par le médecin, ni pour les informations que le Directeur-Général des Postes croirait devoir prendre concernant sa santé, ses habitudes, son âge et ses occupations. Cette personne n'aura également à sa charge aucuns frais de contrat, d'affranchissement pour la transmission de propositions ou de correspondance échangée à cet égard avec le Directeur des Postes. Toutes ces dépenses accessoires sont comprises dans les primes que l'on aura à payer conformément aux tables dressées à cet effet, pour les assurances sur la vie ou l'achat d'allocations mensuelles différées.

Les personnes ayant l'intention d'acheter des annuités immédiates ou différées, payables par semestre, fourniront, à leur compte, soit le certificat de naissance ou de baptême, soit toute autre preuve authentique qui pourra leur être demandée pour s'assurer de leur âge; et comme les primes fixées par les tables concernant les annuités dont il s'agit ne com-

à payer, au moment de l'achat, un droit de 1s. par livre sterling d'annuité concédée.

Le nombre d'assurances en vigueur à la fin de 1865, était de 560, et le chiffre total des sommes assurées de 41,734*l.*; 94 annuités immédiates, et 54 annuités différées étaient, à la même date, concédées ou en cours d'achat. L'existence de Bureaux d'annuités et d'assurances du Post Office n'est pas encore généralement connue des classes laborieuses du pays; mais il n'est pas douteux qu'avant peu d'années, elles sauront profiter largement des avantages offerts par cette double institution.

(d.) *Sociétés mutuelles.*—Dans son dernier rapport le Registrar (Inspecteur) des Sociétés mutuelles (Friendly societies) dit: 'que les associations mutuelles qui auraient pu se fonder sous la protection des lois régissant la matière, étaient à l'origine, limitées aux objets suivants: d'allouer une certaine somme d'argent lors de la naissance d'un enfant à l'un des membres, ou lors du décès d'un associé; pour frais d'enterrement de la femme ou d'un enfant d'associé; pour secours et assistance aux membres, à leurs maris, à leurs femmes, frères, sœurs, neveux ou nièces, dans la vieillesse, la maladie ou le veuvage; pour dotation à l'un des membres de la société ou à ses représentants, sans distinction d'âge; et enfin pour tout autre objet qui aurait pu être autorisé par l'un des principaux Secrétares d'Etat de sa Majesté, comme rentrant dans l'esprit de la loi sur les associations mutuelles. Par suite de la latitude d'interprétation que contiennent les dispositions de cette loi, son but primitif a été considérablement élargi. Ainsi le Secrétaire d'Etat a successivement autorisé les associations à assister ceux de leurs membres qui sont obligés de faire des déplacements onéreux pour se procurer du travail; à allouer des secours temporaires à ceux qui se trouvent dans une situation gênée; à assister et entretenir les associés frappés de cécité ou de tout autre accident corporel; à acheter du charbon et autres objets de première nécessité pour l'approvisionnement des associés; à payer un intérêt sur l'excédant de la somme restant disponible après avoir acquitté des dépenses qui précèdent; à accorder des indemnités dans les cas de naufrages, de perte ou d'avaries de bateaux et de filets; et à assurer les membres de la société contre les pertes qu'ils pourraient éprouver, soit par la maladie, soit par la mort du bétail employé dans les travaux agricoles; et enfin pour la fondation de clubs d'ouvriers. Il existe actuellement dans différentes parties du pays des associations mutuelles ayant pour but de réaliser un ou plusieurs des desseins qui viennent d'être énumérés. En décembre 1865 le Registrar de ces sociétés a transmis aux diverses sociétés 22,834 formes pour obtenir d'elles leurs rapports annuels sur leur situation financière et mobilière; ainsi qu'un nombre égal d'états à remplir concernant les maladies et la mortalité, conformément à l'acte 18 et 19 Vict. c. 63, s. 45. Il n'était rentré jusqu'au 1^{er} juillet 1866, que 10,345 des rapports

annuels, et seulement 7,706 des rapports quinquennaux; 170 de ces rapports n'indiquaient ni le nom ni le siège de la société. Le fonctionnaire qui négligerait de transmettre l'état du compte-rendu général serait passible d'une amende ne pouvant excéder 20s., mais aucune peine n'est infligée pour l'omission de l'envoi du rapport quinquennal des maladies et de la mortalité. D'après les 10,345 rapports mentionnés plus haut, le nombre des sociétaires s'élevait à 1,347,425, et le montant des fonds, à 5,362,028 livres sterling.

(e.) *Sociétés coopératives.*—Il résulte des rapports présentés, en conformité de l'acte 25 et 26 Vict. c. 87, au Registrar, par 417 de ces sociétés, et pour l'année terminée au 31 décembre 1865, que:—

Le nombre de membres était de	148,586
Le nombre de membres admis pendant l'année, de	29,182
Le nombre de membres qui se sont retirés pendant l'année, de	11,815
Montant total reçu ou crédité sur actions depuis l'origine de la société	1,017,106
Montant des cotisations reçues dans le courant de l'année	£ 307,356
Montant des cotisations remboursées pendant l'année	180,812
Montant du capital versé au 31 décembre 1865	761,313
Montant du capital emprunté au 31 décembre 1865	112,733
Montant reçu sur prêt pendant l'année	24,631
Emprunts remboursés pendant l'année	19,101
Montant des intérêts payés pendant l'année	33,686
Somme payée pour achat de marchandises, dans le courant de l'année	3,063,088
Somme reçue pour marchandises vendues dans l'année	3,337,837
Profits réalisés dans l'année	279,226
Montant total des dépenses faites pendant l'année, y compris les salaires, loyers, taxes et autres frais, pour travaux, réparations etc.	190,538
Montant des sommes qui se trouvaient entre les mains de banquiers, trésoriers et officiers, au 31 décembre 1865	136,923
Montant total de l'actif des sociétés au 31 décembre 1865	1,105,685
Montant total de leur passif à la même date	273,480

Toutefois, un très-petit nombre des sociétés dont il vient d'être question, doivent être classées dans les 'coopératives' comprenant les travailleurs; le plus grand nombre d'entre elles ne sont que des 'sociétés coopératives d'approvisionnements de toutes sortes, à des prix de revient. Elles n'en offrent pas moins de grands avantages pour les classes laborieuses

auxquelles elles fournissent des provisions, etc. etc., à de bien meilleures conditions que chez le détaillant ordinaire; et, de plus, comme les achats se font généralement argent comptant, les acheteurs contractent peu à peu des habitudes d'économie.

(f.) *Sociétés de prêt.*—D'après les rapports présentés au Registrar (conformément à l'acte 3 et 4 Vict. c. 110) par 856 de ces sociétés, et pour l'année terminée au 31 décembre 1865, il résulte que :—

	£
Le montant versé par les actionnaires ou déposants était de	253,523
Sommes prêtées et non rentrées au 31 décembre 1865	518,866
Montant des fonds mis en circulation pendant l'année	857,814
Nombre de demandes d'emprunt, dans le courant de l'année	184,171
Nombre d'individus auxquels il a été fait des prêts dans l'année	170,318
Montant payé pour formes de demandes et pour droits de renseignements	10,345
Intérêts payés par les emprunteurs, ou par les garants pendant l'année	42,140
Bénéfices bruts (comprenant les sommes reçues des emprunteurs, et celles payées pour formes de demandes et frais de renseignements pendant l'année)	58,509
Frais généraux	21,345
Intérêts payés aux actionnaires	32,859
Bénéfices nets, déduction faite des intérêts payés aux actionnaires et des frais généraux, pour l'année	6,391
Nombre d'assignations lancées dans l'année	13,208
Nombre de mandats d'arrêt lancés	2,101
Montant des sommes pour le recouvrement desquelles on a donné des assignations	31,586
Montant des sommes recouvrées dans l'année	23,991
Montant des frais acquittés par les sociétés	2,940
Montant des frais acquittés par les débiteurs	2,390

(g.) *Sociétés dites: 'Benefit Building Societies.'* * —Ces sociétés sont répandues dans différentes parties du Royaume, mais il n'existe aucun relevé statistique concernant leur administration et le nombre actuel de leurs membres. On sait toutefois qu'elles comptent plusieurs millions de sociétaires et que leurs opérations sont très-importantes.

(h.) *Sociétés foncières (Land Societies).*—Les 'Land Societies' furent, à l'origine, fondées principalement dans un but politique, c'est-à-dire quelles cherchaient à acquérir à bon marché, en faveur des membres de toutes les classes, surtout les plus humbles, un franc-

alleu dans les comtés, ce qui leur donnait droit de vote.

Aujourd'hui l'objet principal de ces sociétés est de fournir aux mêmes classes les moyens de devenir possesseurs de biens fonds et d'y construire des maisons. Dans le premier cas, les sociétés achètent de grands terrains qu'elles revendent ensuite aux membres, et elles font également à ces derniers des avances d'argent pour construire; le prix d'achat du terrain et le montant des avances peuvent être remboursés aux sociétés par à-comptes; on accorde généralement environ dix ans pour effectuer ces remboursements. Dans quelques-unes des sociétés, où les membres doivent devenir actionnaires, outre d'autres avantages, ils participent aux profits et gains de la compagnie. Il n'existe aucun relevé complet relativement aux transactions des 'land societies,' mais on pourra se faire une idée de leur importance par les chiffres ci-après extraits du dernier rapport d'une des plus grandes sociétés, celle dite 'Conservative Land Society.'

Nombre total des actions émises de septembre 1852 à septembre 1866	25,674
Valeur du terrain vendu depuis la formation de la société jusqu'en septembre, 1866	£ 493,091

Les opérations de la 'National Freehold Land Society' et de la 'British Land Company,' sont plus importantes encore que celles de la 'Conservative Society.'

Cependant le point le plus remarquable à noter, c'est qu'avec l'aide de ces sociétés les artisans laborieux peuvent, dans le cours de quelques années, devenir propriétaires de petites portions de terrain avec maisons d'habitation.

(i.) *Clubs des Ouvriers.*—Les efforts des 'Working Men's Club and Institute Union' sont parvenus à fonder pendant les cinq dernières années, environ 300 clubs comptant 60,000 membres. Quarante-un de ces clubs sont situés dans les districts métropolitains. L'Union dit que ces résultats ne sont que les premiers fruits de ce qu'ils espèrent accomplir en relevant l'ouvrier, et en détruisant les sources de ces maux que beaucoup de sociétés de bienfaisance cherchent seulement à pallier. Le but de l'Union est d'aider les ouvriers à établir des institutions et des clubs où ils puissent se réunir, s'instruire, converser, causer de leurs affaires; ils rencontrent là, aussi, des sujets de récréation capables de perfectionner leur moral; des rafraichissements sont tenus à leur disposition, de sorte qu'ils n'ont aucun prétexte d'aller au *public house* (cabaret.)

Lorsqu'on considère les améliorations qui se sont manifestées depuis un demi-siècle dans les habitudes des hautes et moyennes classes de la société, il est permis d'espérer qu'un perfectionnement analogue finira par atteindre les plus basses classes; et les clubs mentionnés dans le précédent paragraphe contribueront sans aucun doute largement à obtenir ce résultat désirable.

* 'Sociétés mutuelles de construction.'

2^e PARTIE.—COLONIES BRITANNIQUES ET DÉPENDANCES.

Relevés Statistiques indiquant la Situation des Colonies et Dépendances Britanniques en 1861.

Colonies et Dépendances	Superficie	Population Totale	Finance		Dette publique*	Commerce				
			Revenus*	Dépenses*		Navigation	Importations (y compris les Métaux précieux)		Exportations (y compris les Métaux précieux)	
							Tonnage total des entrées et sorties*	Totales*	Du Royaume-Uni seulement*	Totales*	Du Royaume-Uni seulement*
	Milles carrés		£	£	£	Tonnes	£	£	£	£
<i>En Europe.</i>										
Malte	115	*136,339	169	163	189	2,235	1,762	40	1,004	625
Gibraltar	1 ³ / ₈	*15,462	36	35	—	2,275	2,600	1,700	2,250	171
<i>En Asie.</i>										
Inde	1,004,616	143,271,210	44,613	44,982	98,518	4,116	50,108	23,214	66,896	44,971
Île de Ceylan	24,700	1,892,540	868	1,843	350	1,070	5,527	1,652	3,112	2,015
„ Maurice	708	310,050	638	602	600	558	2,583	825	2,250	1,089
Labuan	45	2,373	8	8	—	21	84	—	48	—
Hongkong	29	119,321	133	159	—	2,046	pas de relevés	—	pas de relevés	—
<i>En Afrique.</i>										
Port Natal	14,397	152,704	152	119	100	64	592	441	220	187
Cap de Bonne Espérance	104,931	267,096	588	634	715	541	2,493	1,777	2,614	1,626
Ste.-Hélène	47	6,860	23	23	—	136	123	55	27	25
Côte d'Or (Gold Coast)	6,000	150,000	—	—	—	—	pas de relevés	—	pas de relevés	—
Sierra-Leone	468	41,497	49	51	2	98	190	140	202	24
Gambie	20	6,748	17	18	6	66	105	45	132	27
<i>En Amérique.</i>										
Amérique du Nord :										
Canada	331,280	2,507,657	2,295	2,175	12,368	2,089	9,296	4,382	8,850	3,068
Nouveau Brunswick	27,037	252,047	214	176	2,767	1,412	1,864	750	1,053	569
Nouvelle Écosse	18,670	30,857	200	199	969	1,630	2,521	1,082	1,435	66
Île du Prince Édouard	2,173	80,857	44	38	68	302	338	154	203	37
St. Jean de Terre Neuve	40,200	122,638	125	125	177	281	1,067	455	1,111	283
Colombie Britannique	200,000	11,816	104	117	164	108	500	—	1,219	—
Île de Vancouver	13,000	23,000	71	74	40	232	743	292	80†	—
Îles Bermudes	24	11,461	31	27	—	280	371	127	143	64
Honduras	13,500	25,635	31	28	22	84	291	196	373	218
Indes Occidentales :										
Îles Bahama	2,921	35,487	107	103	13	389	5,346	1,219	4,672	3,511
Île Turque	—	4,372	13	13	—	101	70	13	54	2
Jamaïque	6,400	441,255	309	315	804	284	1,143	628	947	813
Îles de la Virginie	57	6,051	2	2	4	8	8	—	12	—
St. Christophe	103	24,440	19	21	—	50	189	60	125	103
Névis	50	9,822	5	4	3	15	28	6	16	10
Antigua	183	36,412	33	36	20	43	178	70	79	64
Montserrat	47	7,645	4	4	5	10	18	—	19	14
La Dominique (île de)	291	25,065	14	15	3	15	44	15	49	43
Ste.-Lucie	250	26,705	13	13	18	20	90	31	111	101
St.-Vincent	131	31,755	20	20	3	31	136	54	156	143
Barbade	166	152,727	107	104	23	280	910	363	926	549
Île de Grenade	133	31,900	20	17	9	34	121	66	153	140
„ Tobago	97	15,410	8	10	4	11	50	17	64	57
„ Trinité	1,754	84,438	207	193	245	270	884	426	1,101	912
Guyane Anglaise	76,000	148,026	311	270	594	317	1,509	888	1,845	1,589
Îles de Falkland	7,600	566	9	7	—	50	19	19	10	10
<i>En Australie.</i>										
Nouvelle Galles du Sud	323,437	358,278	1,985	2,327	6,073	1,254	9,386	3,856	8,117	2,559
Victoria	86,831	541,800	2,800	2,883	8,444	1,262	14,975	7,899	13,898	5,300
Australie Méridionale	383,328	126,830	809	645	900	321	2,413	1,218	3,305	919
Australie Occidentale	978,000	15,691	72	71	2	94	169	110	112	45
Presqu'île de Tasman	26,215	98,977	335	319	530	248	908	348	975	421
Nouvelle Zélande	106,259	98,971	1,381	1,757	1,300	800	7,000	2,700	3,500	1,500
Queensland	678,000	34,885	502	439	549	246	2,268	507	1,247	355

* Dans le tableau qui précède, les hommes de garnison ne sont pas compris dans le chiffre de la population de Malte et de Gibraltar. Les chiffres afférents aux finances, à la dette publique, et aux importations et exportations, représentent, comme unités, milles livres sterling, et pour la navigation, milles tonnes. La marine comprend le commerce extérieur seulement.

† Les États-Unis seulement.

L'aperçu qu'on vient de lire, sur la situation du Royaume-Uni, ne serait pas complet si l'on ne faisait une rapide allusion aux nombreuses dépendances de la couronne britannique. Les avantages que la métropole retire de ses vastes colonies sont considérables. Elles offrent d'abord un précieux débouché à la portion émigrante de la population de la mère-patrie, et fournissent en abondance ces matières premières qui alimentent les manufactures de l'intérieur; tandis que les produits manufacturés britanniques trouvent largement à s'écouler sur leurs marchés.

Et puis, ce n'est pas un médiocre avantage pour une nation commerciale comme l'Angleterre que de posséder, dans toutes les parties du monde, des ports où ses navires marchands peuvent se réfugier en cas d'orages et de tempêtes, et trouver, en temps de guerre, un abri contre les attaques des corsaires ennemis.

Un autre avantage également important pour la Grande-Bretagne, et qu'elle doit à la possession de ses colonies, c'est la diffusion pour ainsi dire universelle de la langue anglaise, l'extension de la religion anglicane, et la vulgarisation de la forme du gouvernement britannique. Du nord au sud et de l'est à l'ouest, le sceptre britannique étend sa domination sur un empire duquel on peut dire que

le soleil ne s'y couche jamais, et qui renferme au-delà de cent cinquante millions d'habitants, tous soumis plus ou moins aux lois, aux coutumes et à l'influence britanniques.

Les principaux produits commerciaux des colonies les plus importantes sont :—

Pour l'Inde. Café, coton brut, matières tinctoriales, peaux, jute, huiles, opium, riz, salpêtre, graines, châles de cachemire, soie grège, épices, bois de construction et autres.—*Ceylan.* Cannelle, café, huile de noix de coco.—*Ile Maurice.* Rhum et sucre.

Port Natal. Peaux, ivoire, et laines.—*Cap de Bonne Espérance.* Minerai de cuivre, peaux, vin et laines.—*Canada.* Bestiaux, productions animales et agricoles, poisson, potasse, perlasse, et bois de construction.—*Ile du Prince Edouard.* Poisson, grains et bestiaux.—*Terre-Neuve.* Morue, huiles et peaux de phoques.—*Jamaïque.* Café, gingembre, piment, rhum, sucre, bois de campêche.—*Barbade.* Poisson, mélasses, riz, rhum et sucre.—*Trinité.* Cacao, mélasses, rhum et sucre.—*Guyane Anglaise.* Mélasses, rhum et sucre.

Nouvelle Galles du Sud. Or, peaux, suif et laine.—*Victoria.* Or, suif et laine.—*Australie du Sud.* Cuivre, céréales, or et laine.—*Nouvelle Zélande.* Or et laine.—*Queensland.* Or, peaux, suif et laine.

NOTES STATISTIQUES SUR L'INDUSTRIE ET LE COMMERCE DU ROYAUME-UNI,

PRÉSENTÉES SUIVANT LE SYSTÈME DE CLASSIFICATION ADOPTÉ PAR LA
COMMISSION IMPÉRIALE POUR L'EXPOSITION UNIVERSELLE DE 1867.

GROUPE II.

(CLASSES VI. à XIII.)

MATÉRIEL ET APPLICATIONS DES ARTS LIBÉRAUX.

Classe VI.

PRODUITS D'IMPRIMERIE ET DE LIBRAIRIE.

L'ART de l'imprimerie est parvenu, dans le Royaume-Uni, à un grand degré de perfection; et peut-être une des meilleures preuves de son développement ressort-elle de la production quotidienne des principaux journaux, tels que le 'Times,' par exemple. Le fait seul de pouvoir composer et imprimer, en quelques heures, des milliers d'exemplaires de ces journaux, marque suffisamment le rang élevé qu'occupe l'Angleterre dans le commerce de l'imprimerie.

Parmi les causes qui ont récemment contribué au perfectionnement de l'imprimerie dans ce pays, figurent en première ligne l'abolition du droit de timbre sur les journaux, et du droit d'exciise sur le papier. La suppression de ces taxes a permis aux journaux, qui ont néanmoins conservé leur ancien format, d'être vendus au prix d'un penny (10 centimes); il en est résulté que, tout en étant placés à la portée des masses, de grandes améliorations ont été introduites dans les divers procédés se rattachant à leur publication.

Par suite de l'instruction toujours croissante des différentes classes de la société, les demandes de livres imprimés ont considérablement augmenté; et, sans déprécier les œuvres d'un ordre supérieur, on ne saurait trop reconnaître les services rendus par ces innombrables éditions à bon marché qui, dans ces dernières années, ont été publiées dans un but de récréation et d'instruction. La gravure et la chromolithographie ont, en même temps atteint un haut degré de perfection, ainsi qu'on pourra, du reste, le voir par l'examen des spécimens exposés.

D'après le recensement de 1861, le nombre de personnes employées dans le commerce de l'imprimerie était à cette date :—

En Angleterre et le pays de Galles	30,590
Ecosse	4,470
Irlande	2,845

Total 37,905

Sur ce chiffre, 13,937 personnes ont été occupées dans le même commerce à Londres seulement.

Le salaire fixe des imprimeurs à Londres est ainsi qu'il suit :—

Compositeurs	} 36s. par semaine de 60 heures.
Pressiers	
Mécaniciens (ouvriers chargés du soin des machines)	

Une indemnité de 3*d.* (30 centimes) est, en outre, accordée pour chacune des heures de travail supplémentaire, comprises entre 9 heures du soir et 8 heures du matin pendant les jours de la semaine. Nul emploi ne peut être taxé au-dessous d'un shilling entre 10 heures du soir et 6 heures du matin dans la semaine. Le travail du dimanche est payé à raison de 6*d.* extra par heure, mais dans aucun cas l'ouvrier ne recevra moins de 2*s.* 6*d.* à titre supplémentaire.

Dans plusieurs grandes imprimeries le travail, concernant plus spécialement l'impression des livres, se paie aux pièces, et n'est pas généralement exécuté aux gages fixes. Les compositeurs engagés à ces conditions peuvent gagner de 20*s.* à 50*s.* par semaine, selon la nature de l'ouvrage, et l'habileté et l'assiduité de l'ouvrier.

Le travail des journaux, qui se fait à heures irrégulières, est payé à la pièce.

Le taux moyen des salaires a été, à Édimbourg, en 1866 :—

Compositeurs	de 20 à 40	} par semaine
Pressiers	„ 26 „ 28	
Apprentis	„ 3 „ 20	

La valeur des livres, gravures, etc., importés dans le Royaume-Uni, et celle des mêmes articles exportés, a été, en 1865 :—

	Importation £	Exportation £
Livres	119,486	511,388
Imprimés, gravures, etc.	36,525	30,936

Il n'existe aucun travail statistique sur la quantité de livres qui s'impriment annuellement. Le nombre des journaux et publications périodiques, enregistrés dans l'année terminée

au 30 juin 1864, était, pour chacune des divisions du Royaume-Uni, savoir :—

Angleterre	1,307
Pays de Galles	60
Ecosse	133
Irlande	157

Total . . . 1,657

Les principales améliorations, qui, depuis 1851, aient été observées par le jury sur la classe xxxviii. de l'Exposition de Londres, en 1862, sont la substitution des machines au travail à la main pour la fonte des caractères, d'où il est résulté une épargne de travail considérable; l'emploi de machines à composer, d'appareils distributeurs et de presses horizontales; et l'application de la stéréotypie pour la publication rapide, sûre et économique des journaux les plus répandus. On a également constaté la supériorité d'exécution de la typographie en général, même dans les œuvres à bon marché; la pureté des caractères et la netteté du travail étant remarquables. L'imprimerie en couleur avait aussi subi une amélioration sensible, et le perfectionnement a été, dans la lithographie et principalement dans la chromolithographie, plus grand encore.

La publication récente des œuvres complètes de Shakspeare à un shilling le volume, et celle des romans de Walter Scott à six pence le volume, pourront donner une idée du progrès réalisé par la réimpression des 'éditions nouvelles d'ouvrages déjà connus.'

Classe VII.

OBJETS DE PAPETERIE; RELIURES; MATÉRIEL DES ARTS DE LA PEINTURE ET DU DESSIN.

1. Cette classe comprend comme industrie principale la fabrication du papier, qui est d'une grande importance. Le papier se fabrique en divers endroits de l'Angleterre; les moulins à papier du comté de Kent sont depuis longtemps célèbres pour leurs produits de papiers fins pour l'écriture et le dessin. Il y a aussi à Newcastle une grande manufacture de papier d'espèces plus communes. Il se fait aussi du papier, quoique en moindre quantité, en Ecosse et en Irlande. Le nombre des fabricants de papier patentés dans chaque division du Royaume-Uni dans l'année 1865 était—

En Angleterre et dans le pays de Galles	316
Ecosse	56
Irlande	20

Total . . . 392

Parmi les autres articles compris dans cette classe, l'encre pour l'écriture et pour l'imprimerie, la cire à cacheter, les plumes et les autres articles de bureau, les registres et les

couleurs à l'aquarelle, composent chacun un commerce spécial et important; cependant, à l'exception du commerce des plumes métalliques, il n'existe pas de données précises sur le nombre total des personnes employées dans la manufacture de ces divers articles. Le nombre de personnes employées à Londres dans la production de quelques-uns de ces articles, non compris les ouvriers, est ainsi qu'il suit :—

Fabricants d'encre d'imprimerie . . .	21
" " à écrire . . .	43
" de cire à cacheter . . .	24
" de plumes . . .	9

Il n'existe pas de relevé du nombre d'ouvriers employés par ces fabricants. Comme conséquence naturelle de la vaste production annuelle de livres, le commerce de reliure, aussi compris dans cette classe, est très-étendu, et so fait en connexion avec le commerce des publications dans les principales villes du royaume.

Le centre du commerce des plumes métalliques anglaises est à Birmingham, et d'après un rapport fait par Mr. Timmins à l'Association Britannique, réunie dans cette ville en 1865, le nombre des manufactures de plumes métalliques était de 12; le nombre d'ouvriers employés de 360; de femmes et filles de 2,050; et la force de chevaux à peu près de 330. La fabrication de chaque semaine se montait à 98,000 grosses de plumes. La quantité d'acier employée par semaine était de 9½ à 10 tonnes. La valeur des plumes ordinaires varie de 1½d. à 1s. par grosse, celle des plumes à tuyau de 7d. à 12s., et les autres espèces d'un prix plus élevé, d'après leur grosseur et leur fini.

La plupart des opérations pour la fabrication des plumes sont exécutées par des presses à main; elles découpent les flans, percent les trous, forment la pointe, repoussent le dessin et impriment le nom; les machines fonctionnent d'elles-mêmes et ne sont employées que pour la fabrication des plumes des espèces les plus communes.

La condition des ouvriers est satisfaisante, les manufactures étant parfaitement saines. Les gages des jeunes filles varient de 5s. à 12s., d'autres de 2s. 6d. à 3s. 6d.; les ouvrières plus âgées et plus capables gagnent de 15s. à 20s. par semaine. Les hommes gagnent de 18s. à 25s., et les garçons de 4s. 6d. à 8s., et, s'ils sont capables, de 8s. à 16s. Les bons ouvriers adultes gagnent de 30s. à 80s., et même de 90s. à 100s. par semaine. Les heures de travail varient de 52½ à 57 heures par semaine.

2. La plus grande proportion des matières premières employées dans la fabrication du papier est obtenue dans le pays, quoiqu'une quantité considérable de chiffons et d'autres substances pour le même usage soient annuellement reçues de l'étranger. Pendant les dix dernières années plusieurs différentes substances ont été proposées comme substitut du chiffon dans la fabrication du papier, mais sur le nombre, la paille et le sparte ont seuls jusqu'à présent été employés en grandes quantités.

Le tableau suivant fait voir la quantité de chiffons et autres substances d'espèces différentes importés dans le Royaume-Uni pendant les quatre années 1862-65 :—

	1862	1863	1864	1865
	Tonnes	Tonnes	Tonnes	Tonnes
Chiffons, toile et coton	21,966	25,287	23,732	18,273
Sparte et autres fibres végétales	878	19,326	43,403	52,324
Vieux cordages, &c.	932	736	528	463
Pulpe	166	233	156	94
Total des importations	23,942	45,582	67,319	71,154
Réexportations	3,513	1,510	243	1,505
Resté pour la consommation	20,429	44,072	67,576	69,649

On fera observer que la grande augmentation dans la table précédente est due à l'importation croissante de sparte, qu'on reçoit d'Espagne. On l'emploie pour faire les papiers communs et les papiers d'imprimerie qui ont été dernièrement en si grande demande.

3. Il n'y a pas de rapport du nombre des personnes actuellement employées dans le commerce du papier. D'après le recensement de 1861, le nombre des personnes ainsi occupées était de—

	Hommes	Femmes	Total
En Angleterre et dans le pays de Galles	7,746	5,611	13,357
Écosse	1,648	2,773	4,421
Irlande	289	113	402
	9,683	8,497	18,180

Le nombre des relieurs et pleurs de livres, à la même date, était de—

	Hommes	Femmes	Total
En Angleterre et dans le pays de Galles	6,556	5,364	11,920
Écosse	1,176	1,194	2,370
Irlande	448	686	1,134
	8,180	7,244	15,424

Une grande partie du commerce de reliure se fait dans la capitale. En 1861, 4,063 ouvrières et 3,691 ouvriers étaient ainsi employés à Londres.

On doit remarquer que ces deux branches de commerce ont augmenté depuis 1861.

4. D'après un rapport fourni au Ministère du Commerce (Board of Trade) par la Chambre de Commerce d'Edimbourg en 1866, la moyenne du taux des salaires payés aux ouvriers employés à la manufacture du papier dans ce district était :—

	Par semaine	s.	s.	d.
Aux Machinistes	.	20	à	22 0
Mécaniciens	.	17	„	20 0
Finisseurs	.	12	„	18 0

	Par semaine	s.	s.	d.
Blanchisseurs	.	16	à	20 0
Coupeurs de chiffons	.	13	„	16 0
Colleurs de feuilles	.	17	„	18 6
Sécheurs	.	15	„	16 6
Coupeurs de papier	.	15	„	18 0
Ajusteurs	.	22	„	28 0
Chauffeurs	.	15	„	18 0
Autres Ouvriers	.	11	„	17 0

Heures de travail, 10 à 12 par jour.

Il n'y a aucun rapport sur le taux des gages payés dans les fabriques de papier des environs de Londres ; le taux varie considérablement, mais comme règle on croit qu'il est plus élevé que ceux mentionnés ci-dessus.

5. Un accroissement considérable a eu lieu dans la quantité du papier importé depuis 1860 ; ce qui est dû en grande partie à l'abolition du droit sur le papier :—

		Papiers Étrangers (excepté les Tentures)		
		Importés	Exportés	Restés pour la Consommation
Quantités	En	Quintaux	Quintaux	Quintaux
	1860	42,446	9,217	33,229
	1865	239,707	24,537	215,170
Valeurs	En	£	£	£
	1860	128,383	25,995	102,388
	1865	494,222	57,477	436,745

6. Les quantités et la valeur du papier anglais (excepté les papiers de tentures) exporté dans les mêmes années étaient de—

		En	Quintaux	£
Quantités	1860	.	112,514	
	1865	.	141,075	
Valeur	1860	.	£ 450,589	
	1865	.	£ 447,741	

En comparant les tables ci-dessus, on verra que les qualités du papier importées sont considérablement meilleur marché que les qualités exportées.

La quantité de chiffons anglais et de matières premières pour la fabrication du papier exportée dans l'année 1865 se montait à 6,704 tonnes.

La valeur des articles anglais de papeterie (autres que du papier) exportés du Royaume-Uni pendant les cinq années 1861-65 était de—

	£
1861	287,000
1862	285,000
1863	342,000
1864	360,000
1865	405,000

7. L'emploi de la vapeur comme moteur est devenu presque universel en Angleterre, et quoique le prix de la main-d'œuvre y soit plus élevé que sur le Continent, cependant, grâce aux soins et à l'habileté des ouvriers anglais et à la grande supériorité des machines employées il est douteux que le prix de manufacture du

papier en Angleterre ne soit aussi réduit que dans les autres pays.

8. Mr. Richardson, de Newcastle, constate que les principales améliorations qui ont été apportées dans la manufacture du papier, pendant les dernières années, sont dans les détails et dans l'efficacité générale du mécanisme; par ces perfectionnements une quantité beaucoup plus grande est produite avec le même appareil qu'autrefois; et par la conduite supérieure des procédés chimiques une matière qui autrefois n'était d'aucun usage est maintenant convertie en papier commun de boutique; les chiffons inférieurs sont nettoyés, blanchis et convertis en bon papier blanc; ces chiffons autrefois n'eussent donné qu'un papier commun. Presque tout le papier de journal contient une portion de sparte, étant quelquefois seulement un quart chiffon.

Lors de l'abolition du droit de timbre sur les journaux, un grand nombre de feuilles à bon marché prit naissance, ce qui créa un besoin considérable de papier à bas prix. Ce besoin a été rempli en partie par la manufacture du papier de sparte, etc. comme il est dit plus haut, et en partie en important de l'étranger du papier à bon marché. Le jury de l'Exposition de Londres en 1862, observant une tendance croissante à fabriquer des qualités inférieures de papier, éleva sagement la voix contre son usage pour des ouvrages qui devaient avoir quelque durée; mais pour les besoins quotidiens une source de papier à bon marché est, pour les grandes masses de la population, un bienfait inestimable.

De grandes améliorations ont été faites pendant les quelques dernières années dans tous les différents genres de reliure, et notamment dans l'application de la couleur et des ornements à la reliure à bon marché. L'extension de ce commerce a été si considérable qu'il est devenu indispensable d'introduire des machines pour repousser les dessins et gaufrer, afin de permettre au relieur de faire face aux demandes de ses clients.

Classe VIII.

APPLICATIONS DU DESSIN ET DE LA PLASTIQUE AUX ARTS USUELS.

Bien qu'il n'existe aucun mémoire sur les progrès réalisés dans ces dernières années par les différentes branches de commerce comprises dans les limites de cette classe, on a, cependant, généralement pu constater une remarquable amélioration dans le style des dessins appliqués aux manufactures, ainsi qu'un notable perfectionnement du goût dans l'art de la plastique, de la gravure en creux, et de la gravure des sceaux.

Les dessins destinés aux manufactures étant, pour la plupart, exécutés en secret, ce n'est que dans les expositions publiques qu'il est possible

de reconnaître le degré d'avancement qui s'est produit sous ce rapport; c'est donc aux jurés des différentes classes de manufactures représentées à l'Exposition actuelle qu'il appartient de décider quels progrès ont été faits par les dessinateurs anglais depuis la dernière exposition internationale de Paris, en 1855.

On peut justement espérer que le Département de Science et d'Art trouvera, dans ces décisions, la récompense des efforts qu'il fait depuis plusieurs années, notamment pour l'extension et l'application de l'art à toutes les branches de l'industrie nationale.

Classe IX.

ÉPREUVES ET APPAREILS DE PHOTOGRAPHIE.

Considéré au point de vue mercantile, et à part son importance artistique, la photographie fournit, dans ses diverses branches, de l'occupation à des milliers de personnes.

Il ne rentre pas dans les limites de ces observations de retracer l'histoire de son invention et de son rapide développement, mais, selon les expressions du rapporteur pour la photographie, etc., à l'Exposition de Londres, en 1862, il suffira de dire qu'il 'n'existe peut-être pas une branche d'art, de science, d'économie ou même d'intérêts humains dans leur plus large acception, à laquelle l'application de la photographie n'ait été utile.'

Aucun relevé statistique indiquant le nombre des personnes employées dans le commerce de la photographie n'a encore paru, mais, d'après le recensement de 1861, on comptait à cet époque 2,957 artistes photographes.

Le nombre de personnes employées dans les diverses branches du commerce à Londres, non-compris les ouvriers, est ainsi qu'il suit:—

Artistes-photographes . . .	284
Fabricants d'appareils . . .	38
„ d'albums . . .	14
„ de produits chimiques } pour la photographie }	17
Monteurs . . .	6
Fabricants de papier pour la photo- graphie . . .	15
Imprimeurs . . .	7
Éditeurs . . .	16
Marchands du matériel de photo- graphie . . .	23

Bien que le jury pour la section de photographie à l'Exposition de Londres ait constaté que d'immenses progrès avaient été faits depuis le précédent Concours International, en 1851, il jugea cependant que cet art était susceptible d'atteindre de plus grands perfectionnements encore, et il fut convaincu que la prochaine Exposition Internationale montrerait des résultats 'dépassant de beaucoup en beauté, en grandeur, et en importance,' ceux auxquels il faisait alors allusion.

Classe X.

INSTRUMENTS DE MUSIQUE.

La fabrication des instruments de musique dans le Royaume-Uni, donne lieu à un commerce très-étendu. Les principales sortes d'instruments fabriqués sont les orgues, les harpes, les instruments de cuivre, et les pianos, dont les derniers occupent le rang le plus important. Les pianos sortant des ateliers de Londres sont, depuis longtemps, reconnus pour l'excellence de leur ton et la supériorité de leur main-d'œuvre. Les méthodes perfectionnées adoptées par les fabricants anglais pour la construction des orgues, tendent à assurer une haute réputation à ces instruments, tant à l'intérieur qu'à l'étranger.

On ne possède aucun renseignement exact sur le nombre total de personnes employées, dans le Royaume-Uni, à la fabrication des instruments de musique de toute sorte, mais les tableaux suivants, qui indiquent quelle a été, pour ces articles, la valeur des importations pendant les cinq années 1861-65, montrent que la production indigène est restée inférieure aux besoins du pays.

Valeur des instruments de musique de toute sorte importés dans le Royaume-Uni :—

Années	Pianos	Harmoniums et Séraphines	Boîtes à Musique.	Sortes diverses	Totaux
	£	£	£	£	£
1861	24,542	33,971	13,774	91,271	163,558
1862	43,343	53,681	13,494	80,388	190,906
1863	97,378	18,372	12,495	80,943	209,188
1864	111,234	15,548	17,015	80,452	224,249
1865	66,702	68,313	30,384	78,414	243,813

Les pianos et les harmoniums sont principalement importés de France.

Le nombre de fabricants d'instruments de musique à Londres, non-compris les ouvriers, est ainsi qu'il suit :—

Instruments	No. de Fabricants
Concertinas	11
Tambours	9
Flûtes et flageolets	14
Guitares	4
Harmonicas	1
Harmoniums	28
Harpes	4
Cors, cornets et trompettes	7
Instruments de musique militaire	10
Séraphines	3
Violons	8
Archets de violons	8
Violoncelles	2
Boîtes à musique	5
Pianos	286
Orgues	43
Fabricants de cordes	17
Divers	47

La valeur des exportations d'instruments de

musique de manufacture britannique a été, pour les cinq années 1861-65 :—

Années	Pianos	Sortes diverses	Totaux
	£	£	£
1861	non-indiqué	non-indiqué	147,144
1862	82,615	69,155	151,770
1863	112,821	53,972	166,793
1864	107,871	59,980	167,851
1865	93,071	59,757	152,828

Classe XI.

APPAREILS ET INSTRUMENTS DE L'ART MÉDICAL.

Quoiqu'on ne puisse dire que les articles compris dans cette classe représentent une industrie nationale étendue, cependant ils possèdent une valeur dont l'argent peut à peine être un équivalent. De tous les arts, il n'y en a pas de plus noble que celui du chirurgien, et par conséquent les instruments dont il se sert dans ses opérations participent nécessairement à l'honneur qui s'attache à sa profession.

Presque la totalité des instruments de chirurgie employés en Angleterre sont de manufacture anglaise, et à cause des divers modes de traitement adoptés en différents pays, il ne peut se faire qu'un échange très-limité de ces articles entre le Royaume-Uni et l'étranger. La plupart des instruments de chirurgie se fabriquent à Sheffield, mais les instruments qui sortent des ateliers de Londres peuvent être regardés comme sans rivaux dans le monde entier. Le nombre de fabricants d'instruments de chirurgie à Londres est de 95 ; de fabricants de trousses, 5 ; et de fabricants de bandages, 25. La valeur des instruments de chirurgie et d'anatomie importés dans l'année 1865 était de 566*l.* et exportés de 12,752*l.*

Classe XII.

INSTRUMENTS DE PRÉCISION ET MATÉRIEL DE L'ENSEIGNEMENT DES SCIENCES.

La manufacture des articles compris dans cette classe est considérable, mais par le manque de statistique industrielle il n'y a aucun moyen d'arriver à connaître l'importance exacte des diverses branches de ce commerce dans le Royaume-Uni. Le nombre de personnes employées dans les diverses branches de ce commerce, à Londres, non-compris les ouvriers, est ainsi qu'il suit :—

Fabricants d'instruments de précision	72
„ de boîtes	7
„ d'instruments de marine	32
„ „ de physique, etc.	78
„ „ d'optique	204

En outre des instruments de fabrique nationale, il y a aussi une importation d'instruments scientifiques de l'étranger. La valeur

de ces instruments et appareils importés dans le Royaume-Uni et les articles anglais de la même espèce exportés pendant l'année 1865 était de—

1865. Importations, 14,2247.
 „ Exportations, 71,058'.

Classe XIII.

CARTES ET APPAREILS DE GÉOGRAPHIE ET DE COSMOGRAPHIE.

Les ouvrages les plus importants et qui méritent le plus l'attention dans cette classe sont les cartes levées par les Commissions d'artillerie et de géologie. Les premières sont publiées sur trois échelles différentes, la carte sur l'échelle d'un pouce par mille est une excellente carte du royaume. La carte géologique des Îles Britanniques, dont une partie a été exposée à l'Exposition de Paris en 1855, a été déclarée sans rivale par tous les juges com-

pétents. Depuis 1855, quelques-uns des districts minéraux les plus importants ont été inspectés et les cartes qui les concernent complétées. On exécute dans ce moment les cartes des comtés du nord de l'Angleterre et la carte d'Irlande sur une échelle de six pouces au mille ; plus de la moitié de la surface de l'Angleterre et de l'Irlande a déjà été inspectée, et, prenant en considération la nature du travail, de grands progrès se font annuellement.

Il n'y a aucun moyen de déterminer la valeur ou l'extension du commerce des cartes, mais il est d'une importance considérable, et les ouvrages produits sont très-supérieurs. Le nombre de personnes, non-compris les ouvriers, actuellement employées dans les diverses branches de ce commerce, à Londres, est de—

Marchands et éditeurs de cartes	. 24
Fabricants, coloristes, et monteurs	. 44
Graveurs . . . . .	. 18

La valeur des cartes terrestres et marines exportées en 1865 s'est élevé à 6,5717.

GROUPE III.

(CLASSES XIV. à XXVI.)

MEUBLES ET AUTRES OBJETS DESTINÉS À L'HABITATION.

Classe XIV.

MEUBLES DE LUXE.

AUCUNE des branches de l'industrie du pays n'a retiré plus de profit des Expositions Internationales que le commerce des meubles de fantaisie. Dans la période de temps comprise entre le commencement de ce siècle et l'année 1851, le progrès, en ce qui concerne la fabrication des articles d'ameublement, a été relativement faible dans le Royaume-Uni; mais, à partir de cette dernière époque, il s'est manifesté un perfectionnement soutenu, non-seulement au point de vue de l'économie dans la production, mais aussi sous le rapport du dessin et de l'ornementation, ainsi que dans une meilleure adaptation des différents articles aux usages qui leur étaient destinés.

Il suffit de jeter un coup d'œil sur la vie domestique moderne, en Angleterre, pour s'apercevoir des grands changements apportés, pendant ces dix ou quinze dernières années, dans les embellissements intérieurs des habitations de la haute et de la moyenne classe de la société; et il n'est pas douteux que l'extension des connaissances artistiques contribuera davantage encore à produire et à faire apprécier des articles qui réunissent les trois conditions nécessaires; convenance du but, beauté du dessin et de l'ornementation, et excellence de la main-d'œuvre.

Le nombre de fabricants à Londres occupés dans les diverses branches de cette industrie, non-compris les ouvriers, est ainsi qu'il suit:—

Ébénistes	812
Tapissiers	486
Sculpteurs et doreurs	342
Vernisseurs	142
Fabricants de glaces	61
Étameurs	24
Sculpteurs, incrusteurs, etc.	108
Fabricants de lits	43
„ de lits de fer	44
„ de chaises, de sofas, de } tabourets	252

La valeur des articles d'ameublement importés dans le Royaume-Uni pendant l'année

1865, a été de 128,925*l*. Celle des exportations s'est montée à 289,887*l*.

Classe XV.

OUVRAGES DE TAPISSIER ET DE DÉCORATEUR.

Les articles compris dans cette catégorie ont nécessairement participé aux progrès signalés pour la fabrication de ceux mentionnés à la classe précédente. La fortune toujours croissante des classes moyennes de la société, a particulièrement accru le chiffre des commandes pour les travaux d'embellissement au dedans des habitations. Le genre spécial aux édifices religieux a subi de notables perfectionnements, par suite du retour, dans ces derniers temps, aux anciens styles d'architecture qui nécessitent pour ainsi dire un surcroît d'ornementation dans la décoration intérieure des églises. Le carton-pierre, qui produit tant d'objets variés pour la décoration, occupe le premier rang; il se fait principalement à Birmingham, et des centaines de personnes sont employées à sa fabrication. Le taux moyen des salaires est de 10*s*. à 16*s*. par semaine, pour l'ouvrier ordinaire, et de 30*s*. à 50*s*. pour ceux qui sont chargés de la partie artistique. Ces derniers ont, paraît-il, beaucoup profité des enseignements de l'École d'Art établie à Birmingham.

Classe XVI.

CRISTAUX, VERRERIE DE LUXE ET VITRAUX.

1. Les principales qualités de verre fabriquées dans le Royaume-Uni, sont des glaces, du verre blanc, du verre à vitres et des cristaux. Les principales verreries sont à St. Helen's, dans le comté de Lancaster, mais il y a aussi de grandes fabriques dans d'autres endroits, en particulier celles de Messrs. Chance, de Birmingham, et Messrs. Hartley, de Sunderland. La gobelet-

terie de cristal est aussi fabriquée à Londres. Le commerce du verre à bouteilles qui se fait dans le voisinage de Newcastle est très-considérable. Le verre à dessins colorés ou peints se fabrique aussi à Londres, à Sunderland et à Birmingham. Le verre pour les instruments d'optique, quoique nécessairement ne formant pas une branche considérable de ce commerce, se fabrique aussi dans le Royaume-Uni, et Messrs. Chance de Birmingham ont des produits de verres pour phares bien connus du monde scientifique.

Quoique la manufacture de cette belle matière représente maintenant une des principales industries du pays, c'est seulement depuis les vingt dernières années qu'elle a pris un développement un peu rapide. Jusqu'en 1845, les droits excessifs qui en frappaient la fabrication, et les règlements incommodes associés à la perception de ces droits, retardaient entièrement ses progrès; il est de fait que entre 1789 et 1844 les quantités de verre produites et gardées pour la consommation au lieu d'augmenter avec la population avaient plutôt une tendance à diminuer. Cependant, depuis l'abolition des droits sur le verre, l'accroissement de cette industrie a été très-considérable, et l'abolition de l'impôt sur les fenêtres en 1851 a encore contribué au succès de cette industrie.

2. Les matières premières employées dans la fabrication du verre sont presque entièrement obtenues dans le pays; mais dans quelques branches de l'industrie on emploie le sable de Fontainebleau.

3. Il n'y a pas de statistique officielle du nombre des personnes employées dans l'industrie de la verrerie pour une époque plus récente que 1861; dans cette année le nombre suivant de personnes se trouvaient ainsi engagées:—

	Hommes	Femmes	Total
En Angleterre et le pays	13,809	1,237	15,046
de Galles . . .			
Ecosse . . .	1,189	28	1,217
Irlande . . .	231	31	262
Total . .	15,229	1,296	16,525

Les extraits suivants, tirés d'un rapport de M. H. Chance, fait à l'Association Britannique à Birmingham en 1865, montreront l'importance actuelle de quelques unes des branches de cette industrie. La production de glaces est d'environ 100,000 pieds par semaine. Il y a sept fabricants de verre blanc et de verre à vitres, dont trois font soixante-quinze pour cent de la production totale. Le nombre des ouvriers employés dans ces trois verreries est, dit-on, de 2,500, et la quantité de verre produite de 17,000 tonnes. Il n'y a pas de statistique complète de la production du cristal; les produits annuels de la région de la Tyne et la Wear seulement sont estimés à dix millions de livres; ceux de Birmingham à environ cinq millions, et ceux de Stourbridge à trois millions et demi de livres. La fabrication des bouteilles de verre sur la Tyne et la Wear dans l'année 1862 est

donnée par M. Swinburne comme se montant à environ 4,230,000 douzaines.

4. La moyenne des salaires payés à Birmingham en 1866 pour la manufacture du cristal et cristaux pour l'usage domestique était de—

Pour les Ouvriers.

Par semaine de 45 heures :

	s.	d.	s.	d.
1 ^e classe . . .	48	0	à	49 0
2 ^e classe . . .	42	0	„	44 6
3 ^e classe . . .	30	0	„	40 6
4 ^e classe . . .	22	0	„	34 0
5 ^e classe . . .	10	0	„	31 0
6 ^e classe . . .	21	8		

Par semaine de 55 à 60 heures :

Tailleurs de verre.	24	0	„	32 0
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Par semaine de 56 heures :

Fondeurs, mâcleurs, emballeurs, etc.	25	0		
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Pour les Ouvrières.

Par semaine de 50 heures :

Employées comme emballeuses, etc.	10	0		
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Dans quelques branches du commerce du verre, les rapports entre les patrons et les ouvriers, et les habitudes des ouvriers eux-mêmes, sont susceptibles de grandes améliorations. M. Swinburne dit que les rapports entre le patron et l'ouvrier dans le commerce du verre soufflé et des bouteilles sont l'équivalent d'une grève chronique. De plus, à cause d'un supplément en outre du salaire, appelé 'pour boire,' et qui est dépensé tous les jours en liqueurs enivrantes, les habitudes de l'ouvrier deviennent généralement irrégulières et dégénèrent dans la majorité des cas en une ivresse habituelle. Dans d'autres branches, on dit que les ouvriers possèdent une intelligence et une éducation considérables et profitent volontiers des diverses institutions établies pour l'amélioration intellectuelle des classes ouvrières.

5. La table qui suit donne un rapport complet des différentes espèces de verre importées dans le Royaume Uni en 1865 :—

	Quantités	Valeur
	Quintaux	£
Vitres (excepté les glaces)	264,056	211,246
Cristal taillé, de couleur et orné	32,961	172,405
Cristal uni, bouteilles comprises	23,039	32,254
Glaces . . .	28,631	133,613
Glaces étamées ou miroirs . . .	1,699	10,700
Bouteilles de verre commun } ou vert . . .	17,113	8,984
Produits non-classés . . .	12,650	60,773
	380,149	629,975
	Livres	
Perles rondes et ovales . . .	3,365,221	178,310

L'importation des vitres et du cristal se fait principalement de Belgique et de Hambourg, celle des glaces et des miroirs de France et de Belgique.

La réexportation des vitres et des grains de verre dans la même année a été considérable, étant de 37,842 quintaux et 2,057,000 livres respectivement.

6. Une petite portion seulement de l'exportation de verre, excepté les bouteilles, se fait à l'étranger et en particulier dans les États de l'Europe, la plus grande partie des marchandises étant exportée aux États-Unis et dans les Colonies anglaises. L'emballage étant nécessairement dispendieux pour assurer une transmission sûre, et la perte en casse au déballage, ajoutée au fret et autres frais de transport, représentant une forte somme, une addition aux prix de vente sous la forme d'un droit à l'importation équivaut à une prohibition réelle du commerce de cet article; et comme le taux des droits d'importation à présent levés en Europe est généralement considérable, le manque de commerce avec cette partie du monde se comprendra facilement, surtout dans les états qui produisent largement, et où la main-d'œuvre, étant à bon marché, permet au manufacturier du pays d'approvisionner les marchés de sa patrie de marchandises à bas prix.

Quoique beaucoup de marchés aient été et soient encore ainsi fermés aux producteurs de verre anglais, on verra d'après la table suivante que le commerce d'exportation a fait de grands progrès pendant les quinze dernières années.

Années	Cristal	Verre à Vitres	Bouteilles ordinaires	Glaces
Quantités				
	Quintaux	Quintaux	Quintaux	Quintaux
1851	25,900	16,459	329,025	Voir la valeur
1855	39,295	21,537	513,140	
1860	79,544	33,498	629,511	
1865	99,314	50,955	722,496	
Valeur				
	£	£	£	£
1851	110,666	22,223	174,318	20,743
1855	141,890	33,659	279,471	52,312
1860	222,380	44,063	324,189	62,566
1865	302,105	60,857	310,245	71,987

7. La plus grande partie des verroteries se fait par un travail manuel, aidé de moyens mécaniques; la manufacture du verre moulé est, cependant, en plus grande partie faite par des machines. La vapeur est aussi beaucoup employée pour la taille et les façons diverses des cristaux.

8. M. Swinburne constate que, 'quant à ce qui regarde la manufacture générale du verre, on ne peut nier qu'il n'y ait à présent matière à amélioration.' Beaucoup de progrès ont été faits cependant dans plusieurs branches de ce commerce, parmi lesquels on peut spécifier l'augmentation de la grandeur des plaques, vitres, etc.; le perfectionnement dans la couleur du verre, et aussi dans la manufacture du verre moulé. L'introduction de ces dernières marchandises a fait descendre si bas le prix des cristaux, que presque les plus pauvres de la population peuvent obtenir pour l'usage domestique des articles élégants qui, il y a quelques années, eussent été de beaucoup au delà de leurs moyens.

Les progrès du commerce du verre sont dûs en plus grande partie, comme il a déjà été dit,

à l'abolition des droits, qui autrefois entraient ses transactions. Lors de l'abolition de ces droits eut lieu une grande baisse sur le prix du verre, et une consommation considérablement augmentée en fut le résultat. Les prix suivants des principaux articles de verre avant l'abolition des droits, et les prix actuels donnés par M. Chance, offrent une preuve intéressante des bienfaits dérivés de cette abolition et de l'avancement général de cette industrie. Un miroir de glace 50 x 40 pouces, en 1844, coûtait environ 10*l.*, en 1865, moins de la moitié. De bon verre blanc par caisse, en 1844, coûtait environ 12*l.*, en 1865, 2*l.* 8*s.*; le verre à vitres ordinaire par pied, en 1844, 1*s.* 2*d.*, en 1865, 2*d.* Si les droits sur le verre avaient existé, en 1851, un Palais de Cristal eût été presque une impossibilité; d'autre part, l'abolition de l'impôt sur les fenêtres a amené un usage plus répandu du verre dans les bâtiments de toute espèce, et a matériellement contribué au bien-être et à la bonne santé de la population.

Quant à l'application de l'art à la décoration du verre manufacturé, le jury de l'Exposition Internationale de 1862 a constaté que les plus grands progrès étaient sensibles dans le verre gravé. Il remarqua aussi particulièrement les formes plus gracieuses des objets d'un usage général, ce qui fut attribué en grande partie au goût émanant des écoles de dessin répandues dans le pays, aux efforts de beaucoup de manufacturiers encourageant une meilleure appréciation de la forme chez les acheteurs et à une avance générale du public dans sa connaissance de l'art. Le jury attribue beaucoup de ce progrès aux expositions nationales et internationales et spécialement aux dernières, dans lesquelles les exposants apprennent les uns des autres, par la concurrence dans les arts de la paix.

Classe XVII.

PORCELAINES, FAÏENCES ET AUTRES POTERIES DE LUXE.

1. La poterie en général, qui forme aujourd'hui une des principales industries du pays, prospère depuis plus de deux siècles dans le Staffordshire. L'Angleterre ne possède pas, comme la plupart des peuples du Continent, des manufactures appartenant à l'État, et instituées en vue du développement des différentes branches de l'art céramique. Conséquemment, cette industrie est laissée à l'initiative des entreprises particulières. Le centre manufacturier le plus important se trouve dans le Staffordshire, avec succursales à Glasgow, Worcester, Newcastle et Lambeth. Les poteries du Staffordshire produisent, pour ainsi dire, toutes les variétés d'articles en terre cuite; celles de Worcester fabriquent des objets de qualité supérieure; Newcastle n'en fournit que du deuxième ordre; et Lambeth fait principalement la

poterie de grès, telle que bouteilles, jarres, terrines, tuyaux de drainage, etc. etc. Il se fait également dans le royaume une grande fabrication d'articles en argile réfractaire. Newcastle et Stourbridge notamment en produisent des quantités considérables.

2. Le pays fournit presque toute la matière première, qui se tire des comtés de Dorset, de Devon et de Cornouailles. D'après les relevés officiels, 374,358 tonnes d'argile et de terre à porcelaine ont été extraites dans le courant de l'année 1865, et 751,566 tonnes d'argile réfractaire fournies par les comtés de Stafford, York, Derby, etc.

On constate que la consommation annuelle dans les poteries du Staffordshire des argiles préparées s'élève à environ 160,000 tonnes. En outre des argiles, M. Coghill fournit le relevé suivant de la quantité des autres matières premières employées dans le Staffordshire. 'La consommation annuelle de la houille dans cette industrie est d'environ 450,000 tonnes. Pour l'application des couleurs on emploie environ 67,000 livres de l'oxyde de cobalt; pour le vernissage on emploie environ 1,100 tonnes de borax et d'acide borique; et pour la décoration par la dorure on emploie 12,000 onces d'or. La quantité d'os calcinés qui se consomme annuellement dans la manufacture est d'environ 4,500 tonnes, qui sont importés principalement de l'Amérique du Sud.'

3. Le tableau suivant indique, d'après le recensement de 1861, quel était, à cette date, le nombre de personnes, employées dans les poteries et dans les manufactures de porcelaine:—

	Hommes	Femmes	Totaux
En Angleterre et le pays de Galles	26,138	11,934	38,072
Écosse	1,922	595	2,517
Irlande	101	7	108
Total	28,161	12,536	40,697

On comptait également en 1861, 3,471 hommes et 1,115 femmes occupés à la fabrication des pipes à fumer.

Il résulte des indications fournies par M. Coghill, que les poteries du Staffordshire employaient en 1864, 27,873 personnes, dont 10,598 femmes.

4. La moyenne des gages payés, en 1866, aux ouvriers du comté de Staffordshire a été, savoir:—

	Par jour	s. d.	s. d.
Pour les hommes	de 1 6 à 7 0		
Pour les femmes	„ 1 6 „ 1 8		
À Worcester:	Par semaine	s. d.	s. d.
Pour les hommes	de 16 0 à 50		
Pour les femmes	„ 10 6 „ 14		
À Newcastle:			
Pour les hommes	„ 10 0 „ 30		
Pour les femmes	„ 10 0		

5. L'importation de la poterie dans le Roy-

aume-Uni est presque insignifiante, et celle concernant la faïence et la porcelaine est assez faible; elle est représentée pour l'année 1865 par un poids de 18,705 quintaux, d'une valeur de 166,098*l.* La plus grande partie de cette dernière importation était de provenance française.

6. Les chiffres suivants montrent quelle a été pour les cinq années 1861-65 la valeur de la faïence et de la poterie exportées du Royaume-Uni:

	£
1861	1,070,000
1862	1,220,000
1863	1,341,000
1864	1,422,000
1865	1,442,000

7. On se sert de machines dans quelques-unes des branches de cette industrie, mais pas autant qu'il serait à désirer.

8. De grands progrès ont été faits ces dernières années dans la fabrication de la faïence et de la poterie en général; et les articles ordinaires fabriqués aujourd'hui pour l'usage domestique sont renommés pour leur bon marché, leur légèreté, et l'excellence du fini. On s'est aussi beaucoup occupé à remplacer les produits chimiques vénéneux employés pour le vernissage par des substances inoffensives; les résultats ont été très-satisfaisants.

Les perfectionnements apportés dans le dessin et l'exécution des objets de l'ordre supérieur sont dus aux efforts réunis de quelques-uns des principaux fabricants, et à l'éducation donnée, par les écoles d'art, aux ouvriers des districts manufacturiers. L'usage plus général des machines contribuerait beaucoup à développer la fabrication des poteries diverses du pays. Le progrès dans la fabrication des articles en argile réfractaire a aussi été considérable: 80,000,000 de briques sont annuellement produites par le district de Newcastle, et environ 30,000,000 par celui de Stourbridge, sans parler des cornues et des tuyaux de drainage, etc., dont on fait de très-grandes quantités.

Classe XVIII.

TAPIS, TAPISSERIES ET AUTRES TISSUS D'AMEUBLEMENT.

1. Les principaux articles compris dans cette classe, et dont la fabrication est considérable en Angleterre, sont les tapis, étoffes pour meubles, toiles cirées, tapis en caoutchouc et tissus de crin. Les genres les plus importants de tapis de manufacture anglaise sont les 'Jacquard' dit Bruxelles, et les 'Tapestry' ou tapis imprimés: les premiers sont surtout fabriqués à Kidderminster, et aussi à Halifax et Durham, les derniers à Halifax.

'Parmi les autres espèces de tapis, les 'Axminster' sont fabriqués à Wilton; les 'Kidderminster' et les 'Axminsters breyetés' sont faits à Glasgow et ailleurs en Écosse; let

étoffes peintes dites 'Figure twills' se font à Durham, les qualités communes de tapis, dites 'Super,' les tissus hollandais et les feutres se fabriquent dans le West Riding du Yorkshire, etc. La manufacture des tapis de jute à Dundee a aujourd'hui quelque importance. Les cotonnades pour meubles se préparent à Manchester, les lainages et damas de laine à Halifax.

Les toiles cirées pour parquets et pour dessus de tables, etc., sont beaucoup employées dans le Royaume-Uni pour les usages domestiques, et il s'en exporte des quantités considérables. Un grand nombre de manufactures de ce genre sont exploitées dans le voisinage de Londres, mais il en existe également dans les autres parties du royaume.

Les tissus de crin pour sièges font l'objet de quelques affaires, cependant cet article n'est pas aussi communément employé qu'autrefois à la fabrication des meubles. La manufacture des tapis en caoutchouc, etc., s'est accrue considérablement depuis quelques années.

2. La provenance de la matière première employée dans la manufacture des tapis sera expliquée dans les observations sur les Classes 27, 28 et 30. Il s'importe des quantités considérables de crin, principalement de Russie et d'Amérique. Les arrivages de cet article se sont élevés, pour l'année 1865, à 21,078 quintaux, d'une valeur de 106,938 $\frac{1}{2}$. Les matières premières surtout employées dans la manufacture des tapis de gomme élastique, etc., sont le caoutchouc et la gutta-percha; le premier est particulièrement tiré de l'Amérique du Sud et la dernière de Singapore et de l'Archipel oriental.

La quantité et la valeur des matières de cette espèce importées dans le Royaume-Uni, pour l'année 1865, donnent les chiffres suivants :—

	Quintaux	Valeur £
Caoutchouc brut . . .	71,392	530,538
Gutta-percha . . .	29,077	160,565

Une grande quantité de caoutchouc est ré-exportée, et le reste, ainsi que la gutta-percha, sert à la fabrication des tapis, et de plus est employée pour une foule d'autres objets.

3. A l'exception de la manufacture des tapis, il est impossible d'indiquer le nombre des ouvriers employés dans les différentes branches du commerce compris dans cette classe. A l'Exposition de Londres, en 1862, le jury de la Classe 22 évalua le nombre des personnes occupées à la fabrication des tapis à environ 40,000 pour le Royaume-Uni.

4. On a constaté que la moyenne des salaires payés en 1851 aux ouvriers avait été de 16s. à 28s. par semaine, mais ces chiffres sont probablement bien inférieurs aux chiffres actuels. La valeur totale approximative des tapis fabriqués dans le pays donnera quelque idée de l'importance de ce commerce considéré comme ressource pour la classe ouvrière. Les chiffres suivants furent donnés par le jury à

l'Exposition de 1862, comme une estimation de la fabrication des tapis pendant cette année :—

	£
Yorkshire	980,000
Kidderminster et environs	630,000
Durham, Kendal et environs	120,000
Somersetshire et Wiltshire	40,000
Ecosse	340,000
Total	2,110,000

5. La table ci-après indique les quantités et la valeur des tapis de laine et des foyers importés en Angleterre, pendant les cinq années 1861-65 :—

	Yards carrés	Valeur £
1861	61,869	27,538
1862	111,896	33,165
1863	83,696	30,743
1864	78,311	32,392
1865	98,936	39,247

6. L'exportation des tapis anglais et des bures est considérable, les quantités et la valeur de ces articles pendant les quatre années 1862-65 se sont élevés à :—

Années	Tapis	Tapis de Foyer	Bures et Feutres
	Quantités		
	Yards	Nombre	Yards
1862	4,799,000	36,640	579,000
1863	5,582,000	45,907	676,000
1864	5,620,000	40,257	372,000
1865	5,284,000	60,991	459,000
	Valeur		
	£	£	£
	1862 620,700	14,737	50,515
	1863 747,521	17,578	63,262
	1864 825,098	14,782	36,400
	1865 818,847	17,904	42,600

Les États-Unis offrent le meilleur débouché pour les tapis anglais; 2,164,000 yards ont été expédiés dans ce pays en 1865.

Les exportations de toiles cirées britanniques ont été, pour l'année 1865 :—

	Quantité Yards carrés	Valeur £
Toiles cirées, vernissées, etc.	2,094,000	138,459
Toiles cirées, pour parquets et tapis de caoutchouc	320,000	40,448

7. La manufacture des tapis se fait aujourd'hui principalement au moyen de machines; le tissage 'Jacquard' à la main ayant été presque entièrement remplacé par le tissage à la vapeur.

8. Il a été clairement démontré, par l'amélioration du goût, par les couleurs et le dessin des articles exposés en 1862, comparés avec ceux de l'Exposition de Londres en 1851, que le commerce des tapis, en Angleterre, avait fait de grands progrès depuis 1851, tandis que l'usage généralisé de la vapeur avait accru de beaucoup la fabrication de cette espèce de marchandise. Le rapide développement de la

manufacture de tapis dit 'Tapestry,' de MM. Crossley, à Halifax, est peut-être une des plus grandes preuves des progrès récents de cette industrie en Angleterre. Durham, Glasgow, Halifax, Kidderminster possèdent chacune des écoles d'art, et l'on ne peut mettre en doute que l'instruction donnée aux classes ouvrières dans ces écoles doit avoir une influence très-salutaire sur la fabrication spéciale à ces districts.

Un progrès considérable dans le dessin des toiles cirées a aussi été obtenu depuis l'année 1855.

Classe XIX.

PAPIERS PEINTS.

Il y a un siècle et plus, que l'on fabrique le papier de tenture dans le Royaume-Uni. Cette industrie est exploitée dans les environs de Londres, à Manchester, à Edimbourg et dans d'autres provinces. Les manufacturiers anglais excellent surtout dans la fabrication des papiers peints faits à la mécanique, et qui, par leur bon marché, sont placés à la portée des plus pauvres, leur permettant ainsi de donner aux murs de leurs habitations un aspect gai et réjouissant.

2. Une quantité considérable de papier, de couleurs, de laine et de métal est annuellement consommée pour la fabrication du papier de tenture, mais il n'existe aucun relevé statistique à cet égard.

3. Le recensement de 1861 nous apprend que le nombre d'ouvriers employés à la fabrication du papier-tenture était alors, pour chacune des divisions du Royaume-Uni, savoir :—

	Hommes	Femmes	Total
En Angleterre et le pays de Galles . }	1,556	399	1,955
Ecosse . . .	77	38	115
Irlande . . .	96	9	105
Total . . .	1,729	446	2,175

4. Il n'existe aucun rapport général du taux moyen des salaires payés pour la fabrication du papier de tenture. La Chambre de Commerce d'Edimbourg a adressé, à ce sujet, un relevé au 'Board of Trade' (Ministère du Commerce), duquel il résulte que la moyenne des gages alloués dans cette localité a été, en 1866, de, savoir :—

	Par semaine de 57 heures
Pour les apprêteurs de couleurs .	12
„ „ glaceurs ou vernisseurs, etc.	15
„ „ imprimeurs et marbreaux de 20 à 40	

5. La quantité et la valeur des papiers de tenture importés dans le Royaume-Uni, pendant les cinq années 1861–65, donnent les chiffres suivants :—

Années	Papiers de Tenture	
	Quantités	Valeur
1861	Quintaux 2,975	£ 15,395
1862	4,210	17,680
1863	5,177	21,740
1864	5,979	25,110
1865	5,684	23,873

La plus grande partie des papiers de tenture importés dans le pays est de provenance française.

6. Le tableau suivant indique quelles ont été les quantités et la valeur des papiers de tenture britanniques exportés pendant la même période :—

Années	Papiers de Tenture Britanniques	
	Quantités	Valeurs
1861	Quintaux 13,415	£ 105,984
1862	19,874	64,505
1863	25,874	84,403
1864	25,163	82,819
1865	32,893	109,320

7. L'emploi des machines, qui dans ces dernières années ont subi de grands perfectionnements, est presque général pour la fabrication des papiers de tenture de qualité inférieure ; chacune de ces machines peut imprimer de 1,000 à 1,500 pièces par jour.

8. Jusqu'en 1846, le droit élevé auquel étaient soumis les papiers de tenture de provenance étrangère, avait eu pour résultat de les exclure presque entièrement du marché britannique, et l'absence de toute concurrence a fait que les fabricants anglais ont laissé le progrès stationnaire. Cependant, depuis que les articles étrangers ont été admis dans le royaume au même titre que ceux fabriqués dans le pays, il s'est manifesté un perfectionnement marqué dans le style et la main-d'œuvre des papiers anglais, tandis que, d'un autre côté, le progrès apporté dans l'emploi des machines pour la fabrication a permis de fournir de beaux papiers de tenture aux prix les plus modérés.

Classe XX.

COUTELLERIE.

1. L'Angleterre a été longtemps renommée pour toute espèce de coutellerie, le siège principal de cette manufacture est à Sheffield. La coutellerie se fait aussi en petites quantités à Londres et dans d'autres parties du royaume.

2. L'acier employé dans la manufacture de la coutellerie est produit à Sheffield, principalement de fers étrangers. En 1862 le nombre des hauts-fourneaux de conversion dans cette ville était de 205, produisant annuellement environ 79,000 tonnes d'acier ampoulé, et le nombre des fourneaux de fonte de 2,437, pro-

duisant environ 52,000 tonnes d'acier fondu par an. Une partie seulement de ces produits est employée dans la coutellerie.

3. Le jury sur la coutellerie à l'Exposition de Londres en 1862 a constaté que, dans les diverses branches du commerce de Sheffield comprenant la coutellerie de table, les rasoirs, les canifs et couteaux de poche et les ciseaux, l'augmentation du nombre des ouvriers avait été moins grande qu'autrefois entre cette date et l'Exposition précédente de 1851; mais que, grâce à l'usage plus étendu des machines, on avait néanmoins produit une quantité plus considérable de coutellerie de table que dans les années précédentes.

Le nombre de personnes employées à Sheffield dans les principales branches de cette industrie en 1864, était ainsi qu'il suit :—

Industries	Ouvriers	Ouvrières	Total
Fabrication des ciseaux	1,089	331	1,420
„ des limes	4,345	589	4,934
„ des scies	1,232	—	1,232
„ de la cou- tellerie	3,294	184	3,478
„ des lames	1,797	—	1,797
„ des cou- teaux	4,944	—	4,944
„ des rasoirs	817	—	817
Total . .	17,518	1,104	18,622

4. La moyenne du taux des gages payés par semaine dans les principales branches du commerce de Sheffield, en 1866, était—

Fabrication de la Coutellerie de Table			
Emplois	Gages	Heures de Travail	
	s.		
Forgeurs	28		60
Frappeurs	24		60
Emmancheurs	21		60
Remouleurs	30		60
Fabrication de la Coutellerie de Poche			
Emplois	Gages	Heures de Travail	
	s.		
Ouvrage fin			
Remouleurs	30		60
Forgeurs	30		60
Couteliers	25		60
Ouvriers pour manches et ressorts	25		60
Fabrication des Ciseaux			
Emplois	Gages	Heures de Travail	
	s. s.		
Forgeurs	20 à 30		60
Limeurs	20 „ 30		60
Remouleurs	27 „ 35		54
Polisseurs	22 „ 32		54

5. La valeur de la coutellerie anglaise exportée du Royaume-Uni pendant les quatre années 1862-65, était :—

	£
1862	291,244
1863	304,119
1864	386,859
1865	402,294

6. On emploie des machines dans quelques branches de la coutellerie, mais la plupart des opérations importantes se font à la main.

7. Quoique récemment aucune amélioration notable n'ait été faite dans la coutellerie, les produits de Sheffield soutiennent encore leur réputation pour l'excellence de la qualité, de la main-d'œuvre, de la beauté du dessin et du fini. Une École d'Art est établie à Sheffield depuis 1843, et le nombre des élèves instruits dans cette école en 1865 était de 1,763.

Classe XXI.

ORFÈVRERIE.

La fabrication des articles de métaux précieux se fait dans les principales villes du royaume, les principaux établissements de la métropole produisent annuellement de grandes quantités de vaisselle d'argent. Dans les dernières années l'usage très-étendu des objets plaqués a eu une tendance à limiter les opérations du commerce des métaux précieux; cependant on calcule que la valeur de l'argenterie de manufacture anglaise employée annuellement dans le pays dépasse la somme d'un million de livres sterling. Il se fait aussi un commerce d'exportation de cet article, dont la valeur s'élevait en 1865 à 62,532.

Il n'y a aucune statistique du nombre total des personnes employées à présent dans la manufacture des articles compris dans cette classe. Le nombre des orfèvres et bijoutiers à Londres est de 159, et de ciseleurs de 41.

Des progrès considérables ont été faits dans les dix dernières années dans l'application de l'art à la manufacture des ouvrages en métaux précieux; mais quant à la forme et à l'ornementation, une culture plus élevée comme pureté de style est en grand besoin parmi les ouvriers anglais dessinateurs d'argenterie.

Classe XXII.

BRONZES D'ART, FONTES D'ART DIVERSES ET OUVRAGES EN MÉTAUX REPOUSSÉS.

La manufacture des bronzes d'art dans le Royaume-Uni est d'une étendue très-limitée. La rareté des bons ciseleurs anglais a été attribuée à la méthode d'enseignement adoptée dans les écoles d'art, qui est plutôt calculée pour la production d'artistes et de sculpteurs que pour celle de bons ouvriers sur métaux.

La France fournit la plus grande partie des bronzes importés dans le pays, ayant envoyé pour la valeur de 55,168, sur un total d'importation de 61,307, dans l'année 1865.

Classe XXIII.

HORLOGERIE.

La manufacture des ouvrages d'horlogerie se fait principalement à Londres, Coventry,

Liverpool et Manchester. Les montres pour lesquelles les fabricants anglais sont surtout renommés sont les chronomètres et autres montres d'un ordre supérieur, quoiqu'un grand nombre de montres à bon marché se fasse dans le pays. Les meilleurs mouvements se font dans le comté de Lancaster, et une exportation considérable de mouvements de montres se fait annuellement aux États-Unis, où ils sont mis dans des boîtiers et finis. D'après le recensement de 1861, le nombre de personnes employées dans l'horlogerie dans chaque division du pays était de—

	Ouvriers	Ouvrières	Total
En Angleterre et dans le pays de Galles	20,221	536	20,757
Écosse . . .	1,699	8	1,707
Irlande . . .	951	12	963
Total . . .	22,871	556	23,427

Le nombre de personnes actuellement engagées dans les diverses branches de cette industrie à Londres, non-compris les ouvriers, est ainsi qu'il suit :—

Horlogers (montres) . . .	412
Fabricants de boîtiers . . .	55
Joailliers . . .	31
Fabricants de mouvements de montres . . .	277
Horlogers (pendules) . . .	162
Fabricants de boîtes d'horloges . . .	14

La valeur des pendules et montres importées pendant les cinq dernières années est restée presque stationnaire; en 1865 une valeur de 216,677*l.* en pendules et de 257,076*l.* en montres a été importée dans le Royaume-Uni. La valeur des marchandises anglaises exportées dans la même année s'élevait à 24,695*l.* en pendules, et à 69,179*l.* en montres.

Classe XXIV.

APPAREILS ET PROCÉDÉS DE CHAUFFAGE ET D'ÉCLAIRAGE.

La fabrication des espèces supérieures de grilles, de garde-cendres et de pèles et pin-cettes en fer et acier, se fait à Sheffield, où cette industrie est établie depuis 60 ou 70 ans; avant cette époque les corbeilles de qualité supérieure se fabriquaient à Londres et à Edimbourg. Les espèces plus communes de cheminées à l'anglaise se font principalement au Carron et autres fonderies en Écosse; à Coalbrookdale, à Londres, Northampton, Dudley, Rotherham, Birmingham, Mansfield, Nottingham et Derby. L'art de travailler, de polir, et de brunir l'acier est presque spécial à Sheffield, et à ses environs. Les districts où se trouvent les hauts-fourneaux de fonte offrent au fondeur le grand avantage du fer et du charbon à bon marché; c'est pourquoi il s'y fait la plus grande partie du commerce des cheminées à l'anglaise.

On peut à peine admettre que les appareils de chauffage par la circulation de l'air chaud, et les appareils de ventilation, aient été jusqu'à présent portés à une grande perfection; le manque de succès est peut-être attribuable, jusqu'à un certain point, au mode de construction des bâtiments auxquels ces appareils ont été appliqués.

Pour l'éclairage, l'usage croissant du gaz dans ces dernières années a considérablement remplacé l'huile, et un grand nombre des manufactures des anciennes lampes a cédé la place aux manufactures d'appareils à gaz. Quoique la consommation des huiles végétales et de poisson ait diminué, l'usage de l'huile paraffine récemment découverte a beaucoup augmenté et a donné naissance à la fabrication d'une nouvelle espèce de lampes, faites maintenant en grandes quantités à Birmingham, à des prix variant de 4*d.* à 50*s.* la pièce. Le développement rapide des communications à vapeur par terre et par mer a aussi donné naissance à une grande demande de lampes à signaux et autres, et a ainsi procuré de l'emploi aux fabricants autrefois engagés dans le commerce des lampes à l'huile de l'ancien système.

Classe XXV.

PARFUMERIE.

Le centre principal du commerce de la parfumerie est à Londres, quoique la manufacture des parfums, pommades, cosmétiques, etc., se fasse en moindres quantités dans la plupart des grandes villes du pays. Une faible partie de la matière première employée dans la manufacture de la parfumerie est le produit du pays; on l'importe principalement des états méridionaux de l'Europe et de l'Asie. La fabrication des savons de toilette dans le Royaume-Uni est très-considérable, le savon le plus renommé, peut-être, est celui connu sous le nom de 'savon de Windsor,' dont non-seulement l'emploi est considérable dans le pays, mais dont l'exportation se fait dans toutes les parties du monde. L'eau de lavande anglaise jouit aussi depuis longtemps d'une grande réputation.

Il n'y a pas de statistique officielle du nombre total des personnes engagées dans la fabrication de la parfumerie et du savon. Cependant l'accroissement général de ces diverses branches a créé un emploi pour un grand nombre de personnes, et l'introduction d'ouvrières pour les travaux légers a ouvert pour les femmes une nouvelle source d'occupations.

Le nombre de personnes engagées actuellement à Londres, dans les industries auxquelles se rattache la parfumerie, est ainsi qu'il suit :—

Parfumeurs :	
En gros . . .	151
En détail . . .	849
Fabricants de teintures pour les cheveux . . .	16

La valeur de la parfumerie anglaise (excepté les savons de toilette) exportée pendant l'année 1865 se montait à 94,351/. L'exportation des savons de toilette dans la même année a été de 7,628 quintaux, évalués à 32,361/.

Pendant les dernières dix années de grands progrès ont été faits dans les diverses branches de la parfumerie, et l'abolition du droit sur le savon en 1853 a eu les plus heureux effets sur la fabrication de cet article important et de première nécessité.

Classe XXVI.

OBJETS DE MAROQUINERIE, DE TABLETTERIE ET DE VANNERIE.

Il n'y a aucun moyen de déterminer la quantité produite des divers articles inclus dans cette classe. Peut-être la plus importante industrie qui s'y rattache est celle de la fabrication des brosses. L'emploi général des brosses dans les usages domestiques et du commerce a produit nécessairement une grande fabrication, l'étendue n'en est cependant pas déterminée. D'après le recensement de 1861, le nombre suivant de fabricants de brosses et de

balais de crin a été compté dans chaque division du royaume :—

En Angleterre et le pays de Galles	11,178
Écosse	535
Irlande	617

Total . . . 12,330

L'importation des brosses et balais de crin est de peu d'importance, et l'exportation de ces marchandises de fabrication anglaise en 1865 se montait seulement à 52,000/., la plus grande partie ayant été expédiée en Australie. D'autre part une importation considérable de soies de porc se fait annuellement; en 1865, 2,566,000 livres ont été importées principalement de Russie. De grandes quantités de brosses se font aussi de fibres de noix de coco.

Le commerce de vannerie du Royaume-Uni est principalement limité à la production d'articles d'une espèce commune, tels que corbeilles, mannequins, paniers d'emballage, etc.; quoique divers articles de fantaisie pour l'usage domestique se fassent aussi.

Les nécessaires de toilette anglais jouissent d'une haute réputation pour l'excellence de la manufacture et la perfection des arrangements; il y en a à tous prix depuis quelques shillings jusqu'à mille guinées. De grands perfectionnements ont été apportés dans la manufacture de ces articles depuis 1851.

GROUPE IV.

(CLASSES XXVII. à XXXIX.)

VÊTEMENTS (TISSUS COMPRIS) ET AUTRES OBJETS PORTÉS
PAR LA PERSONNE.

Classe XXVII.

FILS ET TISSUS DE COTON.

La manufacture du coton forme toujours la principale branche de l'industrie nationale du Royaume-Uni, malgré la crise sévère que le commerce du coton du pays, en commun avec celui de toute l'Europe, vient dernièrement de traverser.

1. Les sièges principaux de cette industrie en Angleterre sont dans le comté de Lancaster, et en Écosse dans le Lanarkshire. Les comtés de York, Chester, Derby et Nottingham ont aussi un grand nombre de filatures de coton.

D'après le rapport le plus récent (1861), le nombre total des filatures de coton dans le Royaume-Uni était de 2,887; sur ce nombre 2,715 pour l'Angleterre et le pays de Galles, 163 pour l'Écosse et 9 pour l'Irlande. Une courte table donnera peut-être une meilleure idée de la distribution de cette industrie dans les trois divisions du royaume:—

Divisions et Comtés	Nombre des Filatures	Nombre des Fusaux	Nombre des Métiers
Angleterre et pays de Galles :			
Lancaster . . .	1,979	21,530,532	306,423
York . . .	369	2,414,898	17,393
Chester . . .	212	3,373,113	32,926
Derby . . .	79	682,008	7,581
Nottingham . .	26	36,000	—
Autres comtés .	50	315,574	3,802
Total . . .	2,715	28,352,125	368,125
Écosse :			
Lanarkshire . .	96	1,138,602	24,149
Renfrew . . .	44	408,742	2,963
Autres comtés .	23	368,054	2,993
Total . . .	163	1,915,398	30,110
Irlande . . .	9	119,944	1,757
Royaume-Uni .	2,887	30,387,467	399,992

La table ci-dessus peut être prise comme une juste représentation de l'industrie du coton dans un temps d'activité ordinaire. Beaucoup

de nouvelles machines ont été ajoutées depuis 1861, mais plusieurs filatures sont encore inactives.

Dans le comté de Lancaster et dans les districts du Cheshire, dont Manchester peut être considéré comme le centre, on produit des fils de coton, des marchandises en pièce légères et fortes, des calicos imprimés, des velours, etc. etc. de toutes qualités; tandis qu'à Glasgow, qui est le centre de l'industrie du coton en Écosse, on produit surtout les espèces plus légères comme les batistes, les jaconas, etc.

Quant aux tissus mixtes, qui sont inclus dans cette classe, il est à peine possible de décrire les articles presque innombrables dont le coton forme une partie constituante. Les plus importants, cependant, sont manufacturés à Bradford et autres parties du comté d'York, c'est à dire, les étoffes de laine et coton qui ont toute l'apparence des étoffes pur laine, quoique nécessairement d'un prix beaucoup plus réduit. De plus amples informations sur ces tissus seront données Classe 29.

2. Avant la guerre civile des États-Unis, l'Angleterre recevait de ce pays la plus grande partie des matières premières employées dans cette industrie. La moyenne de l'importation totale du coton brut dans les cinq années de 1856 à 1860 se montait à 1,129 millions de livres par an, dont 869 millions de livres provenaient annuellement des États-Unis.

Pendant la même période une moyenne de 171 millions de livres s'exportait annuellement, laissant 958 millions de livres pour la moyenne de la consommation annuelle du pays.

Au commencement de la guerre d'Amérique, la Chambre de Commerce de Manchester prit des mesures actives pour encourager la culture du coton dans diverses parties du globe, et plusieurs contrées, particulièrement les Indes Anglaises, l'Égypte, le Brésil et d'autres états de l'Amérique du Sud, et même la Chine et le Japon, augmentèrent considérablement leur culture du coton, et contribuèrent à approvisionner les marchés Anglais pendant les années de 1861 à 1865. Dans la dernière année, cependant, la provision reçue de quelques-uns de ces pays

diminua, et il est probable qu'ils ne pourront entrer en concurrence avec le producteur américain en temps de paix et de tranquillité.

Les trois pays qui fournissaient la plus grande quantité de coton pendant la guerre d'Amérique étaient les Indes Anglaises, l'Égypte et le Brésil. Les importations de cotons bruts pendant l'année 1865 ont été de—

	Livres
L'Inde Anglaise	446,000,000
États-Unis, y compris les Bahamas et le Mexique . . . }	190,000,000
Égypte	177,000,000
Brésil	55,000,000
Chine	36,000,000
Littoral de la Méditerranée (excepté l'Égypte) . . . }	27,000,000
Autres pays	47,000,000
Total	978,000,000

Sur cette quantité 303 millions de livres ont été réexportées, laissant 675 millions de livres pour la consommation.

Les importations de coton brut dans les onze premiers mois de 1866 se montaient à 1,260 millions de livres, et dépassaient de 482 millions de livres les importations du même produit dans l'année précédente. De cette quantité 474 millions de livres furent tirées des États-Unis, et 586 millions de livres de l'Inde Anglaise; 361 millions de livres ont été réexportées pendant les onze mois, laissant 899 millions de livres pour la consommation.

Les variations dans le prix du coton de 1860 au moment présent ont été comme suit :—

En décembre	Coton des plateaux de l'Amérique, bonne qualité, par livre
1860	7 $\frac{1}{4}$
1861	11
1862	23 $\frac{3}{8}$
1863	27 $\frac{1}{8}$
1864	27 $\frac{1}{2}$
1865	22

En juillet et août 1864 la côte s'est élevée à 31 $\frac{1}{2}$ d. par livre. Le coton indien obtint aussi des prix élevés de 1862 à 1865. Les prix actuels (décembre 1866) sont de 16d. pour le coton américain, bonne qualité, et de 12 $\frac{1}{2}$ d. pour le bon Dhollerah (indien).

Il faut remarquer que pendant la crise, le prix des marchandises de coton ne s'est pas élevé dans les mêmes proportions que le prix du coton brut; les frais de fabrication étant restés les mêmes depuis quelques années, ayant plutôt légèrement baissé, à cause de l'emploi de meilleures machines, et afin de maintenir la modicité des prix des tissus, on les fit plus légers en qualité, et contenant par conséquent moins des matières devenues chères. La baisse dans le prix du coton et le retour de demandes régulières de marchandises a heureusement permis aux manufacturiers de revenir maintenant aux anciennes qualités et de rétablir la réputation de leurs marchandises.

3. Sur 451,000 personnes employées dans les filatures de coton dans le Royaume-Uni en 1861, 315,000, ou 70 pour cent, étaient ainsi occupées dans le district du comté de Lancaster. La table suivante donne le sexe et l'âge du nombre total des ouvriers :—

	En Angleterre et le Pays de Galles	En Écosse	En Irlande	Dans le Royaume-Uni
Hommes :	No.	No.	No.	No.
Au-dessous de 13 . . .	21,774	307	—	22,081
De 13 à 18 . . .	38,210	2,661	336	41,207
Au-dessus de 18 . . .	113,720	5,060	488	119,268
Total . . .	173,704	8,028	824	182,556
Femmes :				
Au-dessous de 13 . . .	17,382	325	—	17,707
Au-dessus de 13 . . .	216,512	32,884	1,910	251,306
Total . . .	233,894	33,209	1,910	269,013
Total . . .	407,598	41,237	2,734	451,569

Il est inutile de répéter ici l'histoire de la famine du coton et ses conséquences sur les ouvriers. Le résultat de cet événement fut, pendant un temps considérable, d'engager tous ceux qui pouvaient obtenir de l'emploi à le chercher dans d'autres branches d'industrie, et par conséquent lorsque les filatures furent de nouveau ouvertes, on éprouva quelque difficulté à obtenir de bons ouvriers. Si on juge par la quantité présente de produits et la probable continuation des demandes, tant dans le pays qu'à l'étranger, il y a toute raison d'espérer que la manufacture du coton donnera des moyens d'existence à un aussi grand nombre de personnes, maintenant, qu'en 1861. D'après de bonnes informations, la quantité de coton employée maintenant (décembre) est presque égale à celle employée en 1860.

4. La moyenne du taux des gages reçus dans les principales branches de l'industrie du coton dans le district de Lancaster en 1860 était :—

	Par semaine de 60 heures
Filature :	s. s. d.
Fileurs aux métiers automoteurs	20 à 22 0
Tissage :	
Tisserands aux métiers mus par la vapeur (pour la plupart ouvrières) sur 2 métiers . . .	10 „ 10 9
„ 3 „ . . .	15 „ 16 0
„ 4 „ . . .	16 „ 20 0

Le taux des gages actuels est d'environ 10 pour cent plus élevé que ceux payés en 1860 à cause de la rareté des ouvriers.

Si on prend en considération la sévère épreuve que la population ouvrière a supportée dernièrement dans ces districts, on trouvera la condition générale des ouvriers, très-satisfaisante. On peut se permettre de leur donner de l'emploi à de bons gages, et comme plusieurs membres de la même famille trouvent une occupation

dans les filatures, leurs gains réunis suffisent pour les maintenir dans une position aisée.

M. H. Ashworth a constaté, dans un mémoire lu devant l'Association de Sciences Sociales à Manchester, en octobre 1866, 'que l'augmentation dans les dernières années des écoles journalières, des écoles du dimanche et des écoles des filatures, a eu une grande tendance à développer l'intelligence et à améliorer la conduite et les mœurs des classes ouvrières.

'Un grand nombre d'institutions (Mechanics' Institutes), de clubs et de collèges d'ouvriers, de bibliothèques gratuites et autres institutions semblables qui donnent des moyens de culture morale, ont été établis, et sont très-fréquentés et appréciés de la classe ouvrière. En outre de cela une presse libre et à bon marché a placé dans les mains de l'ouvrier anglais un moyen d'éducation dont on ne jouit encore dans presque aucune autre partie du monde.

'Des habitudes de frugalité et de prévoyance sont visibles dans le désir d'un grand nombre d'entre eux d'arriver à la possession de ressources qui les placeraient à l'abri du besoin, ou même les conduiraient à une richesse supérieure. L'établissement parmi eux de sociétés co-opératives et de compagnies manufacturières et commerciales, formées à l'aide des fonds de réserve du peuple, et conduites exclusivement par les plus capables et les plus intégrés de leurs membres, est un signe de leurs habitudes de prévoyance et d'économie.' Le 31 décembre 1865 il y avait 139 de ces sociétés en existence dans le Lancashire seulement.

5. La valeur des tissus de coton importés dans le Royaume-Uni est petite comparée à celle des exportations, étant moins d'un million de livres sterling par an. Les articles importés consistent principalement en mousselines françaises; en indiennes et autres marchandises en pièces (dont une grande partie est réexportée); et en bonneterie venant principalement d'Allemagne.

6. D'autre part, le fil de coton et les tissus exportés du Royaume-Uni forment la plus grande partie des exportations du pays, comme on le verra par la table suivante :—

Années	En millions de £ sterling					
	Fils de Coton	Marchandises en Pièces		Autres Espèces	Total des Fils de Cotons et Tissus	Valeur Totale des Exportations Anglaises
		Blanches ou Unies	Imprimées, à Carreaux, ou Teintes			
1860	10	23	17	2	52	136
1861	9	22	14	1	46	125
1862	6	16	12	2	36	124
1863	8	23	14	2	47	146
1864	9	27	17	2	55	160
1865	10	28	17	2	57	166

La table suivante des quantités et de la valeur des marchandises et du fil exportés en 1860 et en 1865 donnera une idée générale de l'augmentation de la valeur des produits de coton :—

Coton filé :	Quantités Livres	Valeur £
1860 . .	197,343,000	9,870,000
1865 . .	103,533,000	10,343,000
Fil à coudre :		
1860 . .	6,297,000	741,000
1865 . .	4,626,000	753,000

Marchandises en pièce de toutes espèces :

	Yards	£
1860 . .	2,776,000,000	40,346,000
1865 . .	2,015,000,000	44,860,000

7. La manufacture du coton se fait presque entièrement au moyen de machines. Le total de la force motrice en 1861 était de 281,663 chevaux (de vapeur), et de 12,467 chevaux (hydrauliques). On a, cependant, beaucoup ajouté aux machines depuis 1861.

8. Il serait difficile de désigner ici les nombreuses améliorations qui ont été faites dans les machines et les procédés employés dans la manufacture du coton à cause du grand développement qui a eu lieu depuis quelques années dans ce commerce du Royaume-Uni. Les progrès se sont faits plutôt en simplifiant et perfectionnant les machines existantes, qu'en introduisant de nouveaux modes de fabrication.

Le jury nommé pour faire un rapport sur les machines à l'Exposition de Londres en 1862 a constaté 'que les mécaniques anglaises pour la filature du coton ne pouvaient être trop hautement recommandées, tant pour ce qui regarde la construction générale des machines, l'arrangement judicieux et l'ajustage des diverses pièces les unes aux autres, la perfection obtenue par l'introduction d'améliorations nouvelles, que pour l'excellence du travail et du fini.

'Par les perfectionnements apportés, les exposants s'étaient appliqués à rendre leurs machines aussi certaines dans leurs divers changements et mouvements, aussi automatiques et aussi parfaites que possible. Ces efforts ont été en très-grande partie couronnés de succès, et ont eu comme conséquence la construction de machines d'une plus grande efficacité, tant pour la production que pour la qualité du travail, efficacité plus grande que celle obtenue jusque là.'

Quant aux métiers à tisser, il fut aussi mentionné 'que, pour les arrangements et le travail, les louanges faites des machines à filer étaient également dues aux machines à tisser.'

De grands progrès ont aussi été observés dans les métiers à dévider, à apprêter et à ourdir, comparés à ceux exposés en 1851.

Le changement le plus important depuis 1862 a été l'adaptation d'une grande partie des machines existantes au travail du coton, courte soie, des Indes, et autres cotons, dont on ne faisait que peu d'usage avant la guerre d'Amérique. On accélère le mouvement des machines autant que possible, mais les qualités inférieures de coton ne peuvent être filées avec une grande rapidité, et demandent une plus grande quantité de mécanique que les qualités supérieures.

9. En outre des progrès qui ont été faits dans les branches mécaniques de l'industrie du coton, les moyens adoptés par le gouvernement pour perfectionner l'éducation et le goût des artisans, ne doivent pas être passés sous silence. Des écoles de science et d'art sont maintenant établies, en relation avec le Département de Science et d'Art, dans le centre des districts manufacturiers, ainsi que dans d'autres parties du pays, et plusieurs milliers d'élèves y sont instruits annuellement dans les éléments des sciences et dans les principes bien fondés de l'art. En outre de ces écoles, des collections d'objets d'art ont été organisées et sont envoyées de provinces en provinces, et ainsi beaucoup d'ouvriers, qui ne pourraient se permettre de faire la dépense d'un voyage dans la capitale pour visiter les collections d'objets d'art, ont d'excellents modèles apportés jusque chez eux.

L'instruction ainsi donnée a produit les plus heureux résultats dans les manufactures du pays. Un grand progrès fut évident pour tous ceux qui visitèrent les deux expositions de 1851 et 1862; et on croit que les objets exposés dans cette classe de la Section Britannique de l'Exposition montreront un avancement considérable dans l'appréciation des beaux-arts, tant pour couleur que pour dessin, comparés à ceux exposés dans la dernière exposition de Paris en 1855.

[Pour les articles de *Bonneterie* et de *Lingerie*, voir la Classe 34.]

Classe XXVIII.

FILS ET TISSUS DE LIN, DE CHANVRE, ETC.

1. On comprend dans cette classe les fils de lin et les produits fabriqués de fibres végétales autres que le coton.

L'industrie des toiles, ou tissus de lin et de chanvre, est très-considérable dans tout le royaume, mais plus particulièrement en Irlande dans les comtés de Antrim et de Down. Les principales branches de ce commerce en Angleterre se trouvent dans les comtés de York et de Lancaster; et en Écosse dans les comtés de Forfar et de Fife.

Les tissus de jute (qui sont, pour ainsi dire, inconnus dans les pays étrangers excepté en France et en Hollande) sont devenus d'une si grande importance en Écosse qu'ils méritent d'être mentionnés à part. Le siège de la manufacture est à Dundee. La jute est une plante fibreuse ressemblant beaucoup au chanvre et qui est employée principalement pour les grosses toiles à sacs et à emballages et pour les tapis.

Le nombre des manufactures de lin, de chanvre et de jute dans les trois divisions du Royaume-Uni en 1861 était—

Divisions et Comtés	Filatures	Fuseaux	Métiers à Vapeur
FILATURES DE LIN			
Angleterre et pays de Galles :			
Lancaster . . .	13	117,412	489
York . . .	70	172,272	1,403
Autres comtés . .	53	54,624	268
Total . .	136	344,308	2,160
Écosse :			
Forfar . . .	85	160,090	5,108
Fife . . .	46	54,383	1,823
Autres comtés . .	32	64,912	1,935
Total . .	163	279,385	7,966
Irlande :			
Antrim . . .	47	260,592	2,854
Down . . .	15	103,630	128
Autres comtés . .	38	128,759	1,684
Total . .	100	592,981	4,666
Total Royaume-Uni .	399	1,216,674	14,792
FILATURES DE CHANVRE			
Angleterre et pays de Galles :	3	264	1
Écosse . . .	2	2,316	—
Irlande . . .	—	—	—
Total . .	5	2,580	1
FILATURES DE JUTE			
Angleterre et pays de Galles :	4	620	—
Écosse . . .	27	30,538	554
Irlande . . .	5	1,824	—
Total . .	36	32,982	554

Depuis 1861, cependant, le commerce des toiles et de jute a fait de grands progrès, comme on peut le voir par les statistiques suivantes.

Ce qui suit est un rapport de la position de l'industrie de la toile en Irlande au 1^{er} janvier 1866, publié par M. McIlwrath, Secrétaire du Comité du Commerce des Toiles à Belfast :—

Filatures de Lin.

Nombre des filatures, 86; fuseaux employés 759,452; id. non-employés, 11,362: total, 770,814, et une addition proposée de 103,792 fuseaux.

Tissage à Vapeur

Nombre des manufactures, 44; métiers employés, 10,538; id. non-employés, 266: total, 10,804, et une addition proposée de 6,484 métiers.

Il y avait aussi 17,786 fuseaux, et une addition proposée de 4,656 fuseaux employés à tordre le fil. On construisait aussi de nouvelles manufactures et filatures pouvant contenir une addition proposée de 62,000 fuseaux et de 1,400 métiers.

On produit dans les localités de Belfast, Forfar, Brechin, Dunfermline, Barnsley et Manchester, les toiles unies et damassées, la batiste,

les mouchoirs et autres toiles légères, tandis que les tissus plus forts, toiles à voiles, à sacs, etc. comprises, se font dans les districts de Dundee, Hull, Greenock et Arbroath. On fabrique aussi largement les fils de lin à Leeds.

M. R. Sturrock, Secrétaire de la Chambre de Commerce de Dundee, rapporte que la manufacture de la jute fut connue pour la première fois à Dundee vers 1830, et qu'en 1865 près de soixante-douze mille tonnes de jute brute étaient importées dans cette ville.

Il évalue le nombre présent de manufactures pour filer et tisser la jute à environ 60, contenant 100,000 fuseaux et 5,000 métiers à vapeur.

2. Une grande partie des matières premières employées dans l'industrie des lins du Royaume-Uni se produit dans le pays. La table suivante montre les quantités respectives de la production du pays évaluée en 1866, et des importations de l'étranger dans les cinq années 1861-65:—

PRODUCTION DU ROYAUME-UNI.

	Acres
Nombre d'acres cultivés en lin en Irlande en 1866	263,659
Produit évalué en 1866	Quintaux 1,054,000

PRODUITS ÉTRANGERS IMPORTÉS POUR LA CONSOMMATION

Années	Lin	Chanvre	Jute
	Quintaux	Quintaux	Quintaux
1861	1,286,000	738,000	817,000
1862	1,788,000	908,000	849,000
1863	1,416,000	956,000	1,057,000
1864	1,774,000	943,000	1,754,000
1865	1,867,000	913,000	1,691,000

Une proportion considérable du chanvre est employée dans la manufacture des cordes, cordages, etc.

En 1861 les champs de lin couvraient en Irlande une surface de seulement 148,000 acres, et le produit en était évalué à 451,000 quintaux.

Il n'y a aucune statistique sur la culture du lin en Ecosse; on ne l'y produit d'ailleurs qu'en petites quantités, et on croit que la culture a diminué pendant les derniers dix ans. Les exportations de lin anglais sont de proportions insignifiantes, n'ayant été que de 35,000 quintaux en 1865. Le total des matières premières employées dans les industries des lins et de la jute peut donc être à peu près évalué entre quatre et cinq millions de quintaux.

En 1865 la Russie a envoyé 76 pour cent du lin et 60 pour cent du chanvre bruts importés.

L'Autriche et les Îles Philippines ont aussi beaucoup contribué à fournir du chanvre. La jute est entièrement importée des Indes Anglaises.

3. Le nombre des personnes des deux sexes et de tout âge employées dans les filatures de lin, de chanvre et de jute, dans chaque division du royaume, était, selon le dernier recensement (1861), comme suit:—

	Angleterre et Pays de Galles	Écosse	Irlande	Royaume-Uni
Ouvriers:				
Au-dessous de 13	866	328	236	1,450
De 13 à 18 .	1,422	3,461	3,771	8,654
Au-dessus de 18 .	3,682	6,842	6,142	16,666
Total . . .	5,990	10,631	10,149	26,770
Ouvrières:				
Au-dessous de 13	1,108	627	459	2,194
Au-dessus de 13 .	13,376	28,304	23,359	65,039
Total . . .	14,484	28,931	23,818	67,233
Total hommes et femmes . . .	20,474	39,562	33,967	94,003

Le nombre des ouvriers employés actuellement dans le commerce de la toile et de la jute excède de beaucoup le total ci-dessus.

On a déjà fait voir l'accroissement de la consommation des matières brutes pendant les cinq ou six dernières années; la conséquence naturelle en a été une considérable addition d'industriels dans les manufactures.

Le nombre des ouvriers employés à Dundee dans l'industrie de la jute est maintenant d'environ 28,000; sur ce nombre près d'un tiers sont des hommes et deux tiers des femmes.

4. La moyenne du taux des gages payés dans le commerce des lins à Belfast et à Dundee en 1866 était:—

	Par jour de 10 heures
	s. d.
À Belfast { Aux fileuses	1 4½
(toile) { „ tisserands (femmes)	1 8
	et filles)
	Par semaine de 60 heures
	s. d. s. d.
À Dundee { Aux fileuses	8 6 à 14 6
(toile) { „ tisserands (femmes)	8 0 „ 15 0

La condition des industriels s'est beaucoup améliorée dans les dernières années, grâce à l'augmentation des demandes et au besoin constant de leur travail.

Le taux des gages payés dans les manufactures de jute en 1866 était:—

	Par semaine de 60 heures
	s. d. s. d.
Fileuses	10 0
Tisserands (femmes)	12 6 à 13 4

Les filatures de jute sont bien bâties, bien aérées, et beaucoup d'attention a été donnée au bien-être de l'ouvrier. La classe ouvrière prise en masse jouit d'une bonne santé, est sobre, industrielle et prévoyante.

5. Les importations de toiles, etc., fils et tissus, sont petites comparées avec les exportations. En 1865, 1,216,480 livres de fil de lin, et une valeur de 153,104*l.*, en tissus ont été importés dans le Royaume-Uni. 1,958,000 livres de jute filée, principalement de France, ont aussi été importées dans la même année; la

valeur totale des articles précédents étant de 278,000.

6. D'un autre côté, les exportations de ces articles ont été très-considérables. La table suivante montre la valeur de la toile anglaise, jute filée et tissus exportés pendant les six années 1860-65 :—

Années	Toile		Jute*	
	Fils	Tissus, etc.	Fils	Tissus, etc.
	£	£	non-rapporté	non-rapporté
1860	1,801,000	4,804,000		
1861	1,622,000	3,852,000	85,426	127,031
1862	1,852,000	5,133,000	96,152	133,149
1863	2,530,000	6,508,000	154,618	243,379
1864	2,991,000	8,172,000	114,503	356,764
1865	2,535,000	9,156,000	82,141	311,540

* Ces chiffres ne représentent pas la totalité des exportations de jute, une grande partie étant comprise dans la classe des marchandises de fil.

La valeur des tissus blancs, unis et damassés se montait à sept millions et demi sterling sur une valeur totale de neuf millions en 1865. La valeur du fil de lin à coudre exporté dans la même année était de 558,000.

Pendant les dix années 1851-60, le commerce d'exportation des marchandises de fil du Royaume-Uni resta stationnaire, se montant à un peu plus de quatre millions sterling par an.

Les proportions relatives de la quantité et de la valeur des principales espèces des marchandises de fil exportées en 1860 et 1865 étaient de—

		1860	1865
		Quantités	
Fils de lin . . . livres		31,210,000	36,796,000
Tissus :			
Blancs, unis et damassés . . . yards		136,936,000	222,790,000
Imprimés, teints, ou à carreaux . . . "		3,203,000	16,965,000
Toile à voile . . . "		3,857,000	7,250,000
Fil à coudre . . . livres		3,229,000	3,935,000
		Valeur	
Fils de lin . . . livres		£ 1,801,000	£ 2,535,000
Tissus :			
Blancs, unis et damassés . . . yards		4,161,000	7,537,000
Imprimés, teints, ou à carreaux . . . "		98,000	606,000
Toile à voile . . . "		175,000	383,000
Fil à coudre . . . livres		340,000	558,000

7. La fabrication de la toile se fait presque entièrement par le moyen de machines ; il est vrai que les métiers à la main sont encore employés en Irlande, mais l'usage en décroît rapidement. Le Dr. Watts rapporte, dans *The Facts of the Cotton Famine*, que 'l'économie du travail dans la production des fils de lin semble avoir fait de grands progrès pendant les derniers dix ans. Il y a dix ans, neuf ou dix échevettes par fuseau par semaine du fil No. 30 étaient considérées comme un bon travail ; mais en 1865 dix-huit échevettes du même fil par semaine étaient produites.'

On peut dire aussi que la manufacture de la jute est entièrement exécutée par des machines.

8. Le jury nommé pour examiner les marchandises de lin envoyées à l'Exposition de Londres en 1862 a rapporté que 'l'Angleterre et l'Irlande semblent l'une et l'autre avoir fait des progrès considérables dans la culture et les préparations du lin.' L'Irlande a aussi mérité une mention spéciale pour le bon goût montré dans ses collections de batistes imprimées et ses toiles. Les toiles imprimées sont principalement en usage à l'étranger. On constata aussi la bonne qualité des toiles d'Irlande blanchies, ce qu'on attribue à la nature convenable du climat pour le blanchissage et à l'heureuse combinaison des procédés en plein air et des moyens chimiques. De grands progrès ont aussi été remarqués dans la fabrication des étoupes de lin et l'emploi plus étendu de métiers à vapeur.

On a déjà mentionné la position stationnaire de l'exportation du linge pendant les dix ans qui ont précédé 1861. M. Alcan, rapporteur de la Classe 19 à l'Exposition de 1862, a fait des remarques très-intéressantes sur ce sujet, et il attribuait le manque d'accroissement aux difficultés éprouvées à travailler la matière en nature, en comparaison de la facilité avec laquelle on file le coton brut. Il a constaté que les fils de lin faits par les machines coûtent plus à égales longueurs, pour le même poids de fibres, que les fils de coton. Les machines nécessaires pour filer le lin sont beaucoup plus fortes et demandent une plus grande force de vapeur que les machines à filer le coton. Ceci est dû au mode défectueux de la mise en trempe du lin, qui laisse une trop grande quantité de gomme dans les fibres, ce qui les rend plus difficiles à filer.

Une conséquence de l'interruption du commerce du coton pendant la guerre d'Amérique a été d'augmenter les demandes pour les tissus de fil, et ainsi un élan extraordinaire a été donné à l'industrie des lins. Les prix élevés auxquels se vendaient les toiles pendant la panique du coton engagèrent les propriétaires fonciers à cultiver le lin plus largement ; ils ont aussi stimulé les producteurs étrangers à envoyer leurs produits sur les marchés anglais ; le résultat fut de raviver considérablement le commerce de la toile. Il y a toute raison d'espérer que si les efforts qui ont été faits pendant les dernières années sont soutenus, l'industrie des lins comptera une ère nouvelle de la suspension du commerce du coton et ajoutera matériellement à la richesse du pays.

Quant à l'industrie de la jute, des perfectionnements constants se font dans les machines, et grâce à de récentes découvertes, l'application de la jute à divers articles manufacturés s'étend considérablement. Le nombre des élèves de l'École d'Art de Dundee en 1865 était de 1,922, et on a constaté que les ouvriers dans le commerce de la jute avaient tiré de grands avantages de l'instruction qu'ils y recevaient.

Classe XXIX.

FILS ET TISSUS DE LAINE PEIGNÉE.

1. Le nom de 'Worsted,' donné aux tissus faits de laine peignée, est, dit-on, dérivé du nom d'un village du comté de Norfolk où cette fabrication prit naissance. L'industrie de la laine filée est de très-ancienne date, mais c'est comparativement récemment qu'elle a atteint son importance actuelle. Depuis 1825 elle fit de grands progrès, mais jusqu'à cette époque des fils de laine pure seulement étaient manufacturés. Quelques années plus tard une chaîne de coton fut introduite, et un grand élan fut ainsi donné à la fabrication. On fait maintenant des fils de laine peignée pure, et des mélanges de laine, de coton, de soie, d'alpaca, etc., et le commerce des 'worsteds' est aujourd'hui aussi considérable, sinon plus considérable, que l'industrie des laines.

Les tissus de laine peignée pure comprennent les mérinos simples et croisés, serges et sergettes, lastings, etc., et damas pour tentures. Parmi les tissus mixtes, ceux composés de laine et coton comme 'cobourgs et orléans' ont été en grande vogue; les autres mélanges se fabriquent aussi sur une grande échelle et dans tous les divers degrés de qualité. Bradford est renommé pour la production des mérinos simples et des tissus mixtes, et Halifax pour les tissus épais et les damas, etc.

Bradford, dans le comté d'York, est le siège principal de l'industrie des tissus de laine peignée. Le nombre des filatures de laine peignée dans chaque division du Royaume-Uni en 1861 était de—

Divisions	Nombre des Filatures	Nombre des Fuseaux	Nombre des Métiers à Vapeur
Angleterre et pays de Galles :			
Comté d'York . . .	443	1,149,072	40,577
Autres comtés . . .	69	96,454	2,391
Total . . .	512	1,245,526	42,968
Écosse . . .	17	38,946	80
Irlande . . .	3	4,700	—
Total, Royaume-Uni	532	1,289,172	43,048

Quoiqu'il n'y ait pas de statistique officielle plus récente du nombre de fuseaux et de métiers employés dans la filature de la laine peignée, il est certain que le nombre en a beaucoup augmenté depuis 1861.

2. Les sources d'approvisionnement de laine, de coton et de soie à l'état brut employés dans l'industrie de la laine peignée se trouvera dans les notes sur les Classes 27, 30 et 31. Pour le poil de chèvre la table suivante montre les importations des cinq années 1861-65:—

	Poils de chèvre ou laine
1861 . . .	Livres 3,335,000
1862 . . .	4,048,000
1863 . . .	3,434,000
1864 . . .	4,737,000
1865 . . .	5,402,000

M. Behrens a évalué la quantité totale des matières premières (laine, poil de chèvre, coton, etc.) employées dans l'industrie de la laine peignée en 1864, à environ 150 millions de livres, dont la valeur, après manufacture, était d'environ 33,600,000*l.* sterling.

3. Sur le nombre total des ouvriers employés dans les filatures de laine peignée du Royaume-Uni en 1861, 76,000 ou 88 pour cent étaient engagés dans les filatures du comté d'York. L'âge et le sexe du nombre total des ouvriers sont donnés dans la table suivante:—

	En Angleterre et le Pays de Galles	En Écosse	En Irlande	Dans le Royaume-Uni
Hommes :				
Au-dessous de 13	6,268	—	—	6,268
De 13 à 18 . . .	6,424	178	12	6,614
Au-dessus de 18	17,700	895	24	18,619
Total . . .	30,392	1,073	36	31,501
Femmes :				
Au-dessous de 13	6,906	4	—	6,910
Au-dessus de 13	45,674	1,839	139	47,652
Total . . .	52,580	1,843	139	54,562
Total . . .	82,972	2,916	175	86,063

Ce qui précède est le dernier rapport officiel du nombre de personnes employées, mais on croit qu'il est considérablement au-dessous du nombre actuellement en emploi dans les filatures de laine peignée du pays.

4. La moyenne du taux des gages payés dans les principales branches de cette industrie en 1866 était—

À BRADFORD.

Fileuses 7*s.* à 10*s.* par semaine de 55 heures
Tisserands :

Hommes . . .	18 <i>s.</i>	„	„	60	„
Femmes . . .	12 <i>s.</i>	„	„	55	„

À HALIFAX.

Fileurs :

Hommes . . .	30 <i>s.</i>	par semaine de 60 heures
Femmes 7 <i>s.</i> 6 <i>d.</i> à 8 <i>s.</i> 6 <i>d.</i>	„	„ 60 „

Tisserands :

Hommes . . .	16 <i>s.</i> „ 24 <i>s.</i>	„	„ 60	„
Femmes . . .	8 <i>s.</i> „ 12 <i>s.</i>	„	„ 60	„

5. Les importations de fils de laine peignée sont mentionnées sous la Classe 30. Les importations de tissus de laine peignée ne sont pas très-considérables. En 1865, 154,000 pièces ont été importées, évaluées à 334,000*l.* Ces marchandises venaient principalement de France.

6. Un grand accroissement dans l'exportation des tissus de laine peignée a eu lieu

depuis l'an 1860, comme on le verra par la table suivante :—

		1860	1865
Fils de laine { livres		26,455,000	30,221,000
peignée . . . { £		3,578,000	5,074,000
Tissus de laine { yards		148,685,000	233,078,000
peignée . . . { £		7,013,000	13,361,000

Un grand commerce de tissus de laine peignée s'est fait avec la France depuis la conclusion du traité de commerce avec ce pays, la valeur de ces exportations s'étant élevée à la somme de 1,332,000*l.* sterling en 1865.

7. La filature de la laine peignée se fait entièrement au moyen de machines. La force motrice employée dans les manufactures en 1861 était de 26,234 chevaux de vapeur et de 1,970 chevaux de force hydraulique.

8. Le succès du commerce des laines peignées en Angleterre est dû à la persévérance et à l'habileté manifestées par l'introduction d'une variété infinie de marchandises faites de mélanges de laines animales et de fibres végétales, qui, par le grand choix des qualités et des prix, sont entrées largement dans l'usage de la population pour vêtements et ameublement.

Les procédés chimiques nécessaires pour teindre d'une manière égale et régulière les tissus composés de substances animales et végétales sont nécessairement variés et compliqués; mais les efforts du teinturier ont été si heureux que les marchandises faites d'une chaîne de coton blanc et d'une trame de laine peignée peuvent se teindre d'une couleur aussi unie que le mérinos français pur laine.

Quant aux progrès récents de ce commerce, le jury des tissus mélangés en 1862 a constaté 'un grand perfectionnement dans la teinture des marchandises trame coton, dans le fini des divers tissus de laine lustrée et de poil de chèvre, et plus spécialement dans le goût et la connaissance des couleurs que l'on remarquait dans les tissus façonnés qui forment maintenant une branche si importante de ce commerce.'

Une École d'Art fut établie à Bradford en 1865, et elle contribuera sans doute à perfectionner le goût de toutes les personnes engagées dans l'importante industrie de ce district.

[Pour les articles de *Bonneterie* et de *Lingerie*, voir la Classe 34.]

Classe XXX.

FILS ET TISSUS DE LAINE CARDÉE.

1. Quoique l'industrie des laines existât en Angleterre à une époque très-reculée, il y a peu

de doute que l'acte du roi Édouard III n'en ait fait un établissement permanent en invitant les manufacturiers flamands à venir s'établir dans ce pays dans l'année 1331. Avant cet acte la laine anglaise était exportée en Flandre, et revenait manufacturée; mais depuis cette époque, les manufactures de laine ont constamment augmenté, et ont toujours été regardées comme une des plus importantes industries du pays.

Les manufactures de laine du West-Riding du Yorkshire et celles de l'ouest de l'Angleterre, qui furent établies sous le règne d'Édouard III, sont restées jusqu'à ce jour les sièges principaux de cette grande industrie. Leeds est le centre le plus important du district du West-Riding et peut être considéré comme la métropole du commerce des lainages. Huddersfield, et les environs, est la seconde ville en importance, et est renommée, en outre de ses produits en draps fins, par un grand commerce de draps de fantaisie pour pantalons, etc. Dans l'ouest de l'Angleterre, Trowbridge, en Wiltshire, est le centre d'un grand district qui produit des marchandises de fantaisie et des draps légers de divers genres; Stroud, dans le comté de Gloucester, est célèbre pour ses draps écarlates et autres couleurs brillantes; cette célébrité vient de la qualité particulièrement bonne des eaux pour les opérations de teinture. Les tissus écossais, tweeds, tartans, etc. sont généralement très-souples et de bon teint. Les couvertures de laine, qui sont aussi comprises dans cette classe, se font principalement à Witney, dans le comté d'Oxford, et à Dewsbury, dans le comté d'York. Les flanelles se produisent dans le pays de Galles principalement à la main; Rochdale et les environs sont maintenant le centre de cette branche du commerce anglais. Les tapis de feutre se font aussi dans le comté d'York et sont en grand usage en Angleterre comme substitués à bon marché des tapis.

Une branche très-importante du commerce des lainages, et qui mérite d'être mentionnée plus spécialement, est celle appelée 'shoddy.' Les remarques intéressantes suivantes sur ce commerce ont été faites par le jury pour l'industrie des laines à l'Exposition de 1862 :— Le "shoddy" est de trois espèces : 1. Le shoddy manufacturé de chiffons de laine doux, tels que flanelles, couvertures, bas, tapis, etc.; 2. Le "mungo," manufacturé de chiffons de laine souples et fermes et de rognures de drap neuf, etc.; 3. Un extrait de laine, c'est-à-dire, de la laine obtenue de chiffons de laine et de coton mêlés, qui ont été soumis à un procédé chimique qui consume le coton, laissant la laine intacte. La combinaison du "shoddy" avec de la laine, et l'usage de chaînes de coton, est un des plus heureux mélanges découverts par l'ingéniosité de l'homme, dans l'histoire du commerce des lainages. Par ce moyen la multitude des classes inférieures peut obtenir des articles de vêtement d'un bon usage et confortables, qui autrefois eussent été

au-delà de ses moyens. Dewsbury, Batley, et les villes environnantes dans le West-Riding du comté d'York sont les centres de cette manufacture.'

Les statistiques de l'industrie des laines du Royaume-Uni en 1861 sont données ci-dessous :—

Divisions et Comtés	Nombre des Filatures de Laine	Nombre des Fusaux	Nombre des Mé- tiers à Vapeur
Angleterre et pays de Galles :			
Yorkshire . . .	924	1,296,190	11,405
Devonshire . . .	16	12,585	255
Gloucestershire . .	49	59,986	618
Lancashire . . .	101	277,655	6,377
Montgomery . . .	43	20,920	262
Somersetshire . . .	26	31,401	401
Wiltshire . . .	32	44,825	549
Autres comtés . . .	265	103,288	477
Total . . .	1,456	1,846,850	20,344
Ecosse :			
Aberdeen . . .	25	17,510	93
Clackmannan . . .	15	38,311	214
Peebles . . .	7	51,142	101
Perth . . .	16	16,353	—
Roxburgh . . .	21	60,747	300
Selkirk . . .	16	46,368	158
Stirling . . .	23	32,950	64
Autres comtés . . .	61	53,804	373
Total . . .	184	317,185	1,303
Irlande	39	18,574	123
Total du Royaume- Uni	1,679	2,182,609	21,770

Le nombre des fuseaux et métiers en usage en 1861 était cependant considérablement moindre que le nombre actuel, une grande impulsion ayant été donnée au commerce du lainage lors de la hausse du prix des tissus de coton pendant la famine de coton.

2. La matière première de l'industrie des laines est en grande partie la production du pays, mais comme il n'existe pas de rapport de la quantité actuelle fournie, une idée approximative peut seulement être donnée. En se basant sur le nombre des moutons, la production se monte probablement à 152,000,000 de livres annuellement.

La moyenne de l'exportation de laine anglaise pendant les dernières cinq années a été de 10,100,000 livres. Quant aux importations de l'étranger, plus de 70 pour cent sont fournies en moyenne par les colonies anglaises—l'Australie et les possessions au sud de l'Afrique étant les premières. L'Allemagne fournit quelques-unes des laines de qualités fines, et une grande quantité est aussi importée de l'Amérique du Sud. Les progrès rapides du commerce de la laine dans les dernières années sont montrés par la table suivante des importations de laines brutes de toute espèce (moutons et agneaux, alpaca, lama et vigogne) en 1855, 1860 et 1865 :—

Pays d'Exportation	En 1855	En 1860	En 1865
Colonies anglaises :	Livres	Livres	Livres
Australie	49,142,000	59,166,000	109,734,000
Indes	14,283,000	20,214,000	17,105,000
Cap de Bonne Espérance }	11,075,000	16,574,000	29,220,000
Pays étrangers :			
Espagne	68,000	1,000,000	115,000
Allemagne	6,128,000	9,292,000	6,858,000
Autres Etats de l'Europe }	8,119,000	28,570,000	27,693,000
Amérique du Sud }	7,106,000	8,950,000	17,867,000
Autres pays	3,379,000	4,630,000	3,614,000
Importations totales . }	99,300,000	148,396,000	212,206,000
Exportations totales . }	29,453,000	30,761,000	82,445,000
Resté pour la consomma- tion . }	69,847,000	117,635,000	129,761,000

Il faut se souvenir que les statistiques ci-dessus se rapportent à la laine, etc. en nature employée dans l'industrie des laines peignées et des laines cardées. Sur le total de 212 millions de livres importées en 1866, près de 3 millions de livres étaient de la laine d'alpaca, de lama et de vigogne. En outre, les quantités suivantes de chiffons de laine, etc. employés dans la manufacture du 'shoddy,' ont été importées:—

	Chiffons de laine	Chiffons de laine en lambeaux employés comme laine
	Tonnes	Tonnes
1861 . .	3,290	7,602
1862 . .	4,311	8,972
1863 . .	5,766	9,866
1864 . .	5,909	10,037
1865 . .	5,462	9,316

Mr. Behrens évalue la production annuelle de laine 'shoddy' du pays à 52 millions de livres, et d'extrait de laine à 5 millions de livres.

L'évaluation totale de l'approvisionnement des matières premières employées dans les branches d'industries de laine peignée et de laine cardée, en 1865, peut être établie comme suit :—

	Millions de livres
Laine anglaise (moins les exportations)	142
étrangère	130
' Shoddy ' de manufacture anglaise	52
importé	22
Extrait de laine	5
Fils de laine peignée et cardée	4½
Poil ou laine de chèvre	5
	<hr/> 360½

M. Behrens évalua la quantité totale des matières premières employées dans les industries des laines et des laines peignées en 1864, à 384 millions de livres, et il en fit la répartition entre les deux industries ainsi qu'il suit : dans l'industrie des laines 234 millions de

livres, représentant une valeur de 30,800,000*l.* sterling après manufacture; et dans l'industrie des laines peignées 150 millions de livres, représentant une valeur de 33,600,000*l.* sterling après manufacture. Les importations de laine de l'étranger en 1865 furent beaucoup moins considérables qu'en 1864.

3. Le nombre des ouvriers des deux sexes et de tout âge employés dans les manufactures de lainage en 1861 était de—

	Angle- terre et le Pays de Galles	Écosse	Irlande	Royaume- Uni
Hommes :				
Au-dessous de 13	3,333	29	—	3,362
De 13 à 18	9,811	1,327	75	11,213
Au-dessus de 18	30,954	3,855	370	35,179
Total . .	44,098	5,211	445	49,754
Femmes :				
Au-dessous de 13	2,598	9	—	2,607
Au-dessus de 13	29,613	4,592	417	34,622
Total . .	32,211	4,601	417	37,229
Total, hommes et femmes }	76,309	9,812	862	86,983

Les chiffres précédents sont bien au-dessous du nombre des ouvriers actuellement employés, l'industrie des laines ayant pris une extension considérable depuis 1861.

4. La moyenne du taux des gages reçus dans deux des principales branches du commerce des lainages en 1866 était comme suit :—

	Ouvriers	Par semaine de 60 heures	
		s.	s. d.
À Hudders- field . .	Fileurs . .	18	à 30 0
	Tisserands .	18	„ 23 6
	Tisserands en dessins .	16	„ 30 0
	Dessinateurs .	30	„ 50 0
Dewsbury	Fileurs . .	34	
	Tisserands .	20	
	Tisserands en dessins .	22	
	Dessinateurs .	36	

5. Les rapports du commerce anglais n'établissent aucune distinction entre les importations de fils de laine peignée et de fils de laine cardée. L'augmentation récente dans la quantité de fils de laine importés, désignés dans le rapport officiel comme 'laine filée et estame,' est due probablement davantage à la demande de laine filée qu'à la demande d'estame. Les quantités suivantes de fils des deux genres ont été importées de 1861 à 1865 :—

	Livres
1861	1,577,000
1862	2,244,000
1863	4,526,000
1864	4,654,000
1865	4,392,000

Les chiffres ci-dessus comprennent la laine de Berlin et la laine filée pour ouvrages de fantaisie; le montant en était de 211,000 livres, en 1865.

La valeur des étoffes de laine importées pendant la même période était de—

	£
1861	119,654
1862	124,245
1863	147,757
1864	177,922
1865	190,221

6. Le rapport des exportations des principales espèces de marchandises incluses dans cette classe, indique un état prospère dans cette branche d'industrie, comme la table comparative ci-dessous fera voir :—

	Quantités		Valeur	
	En 1860	En 1865	En 1860	En 1865
Fils de laine .	Livres { non- men- tion- nées	Livres	£ { non- men- tion- née	£
		203,929		35,694
Lainages :	Yards			
	Étoffes, draps d'habits	23,968,000	25,616,000	2,996,000 4,024,000
Flanelles, couvertures, espagnol- lettes .	12,641,000	14,769,000	848,000	1,203,000

7. La plus grande partie de la manufacture des lainages se fait par des machines, mais quoique des progrès considérables aient été faits dans le perfectionnement des machines employées, la manufacture des lainages est sous ce rapport bien en arrière de la manufacture du coton. On tisse encore à la main dans un petit nombre de districts du comté d'York, mais l'usage de ces métiers diminue graduellement. Le total de la force motrice employée dans les filatures de laine, en 1861, était de 26,879 chevaux de vapeur, et de 9,598 chevaux hydrauliques.

8. Les progrès de l'industrie des laines ont été très-considérables dans toutes les branches pendant les dernières dix années. L'approvisionnement croissant de laine en nature, l'introduction de nouvelles combinaisons de laine et autres matières, de machines perfectionnées, et de nouveaux modes de teinture, peuvent être cités comme évidence du progrès. L'usage plus étendu du tissage à vapeur, spécialement en ce qui concerne l'adaptation des métiers à tisser des dessins de diverses couleurs, a matériellement tendu à l'avancement de l'industrie des lainages. De grandes améliorations ont aussi été faites dans presque tous les appareils employés dans la manufacture. En outre on n'a pas perdu de vue l'importance d'une vitesse accélérée dans le travail des machines.

La production des étoffes de 'shoddy,' à bas prix en comparaison des véritables draps, qui possèdent les mêmes qualités que les draps de

laine pure, à l'exception du fini et de la solidité de la couleur, a été un immense bienfait pour beaucoup de classes de la société, non-seulement en fournissant aux classes inférieures de bons articles de vêtement, mais aussi en utilisant une matière qui autrefois était perdue, et créant par sa manufacture un emploi pour des milliers d'ouvriers.

La grande demande pour les lainages de fantaisie dans les dernières années a donné beaucoup d'occupation aux dessinateurs et aux teinturiers. Leeds, Huddersfield, Stroud et Trowbridge possèdent chacune une École d'Art, et plus de huit mille élèves étaient instruits dans ces écoles pendant l'année 1865. La découverte de l'aniline a amené de grandes améliorations dans les dessins et les couleurs des meilleurs tissus de laine.

Le nombre croissant des sociétés co-opératives destinées à fournir aux ouvriers des provisions et des habits pour de l'argent comptant au prix du gros tendra, on espère, à provoquer des habitudes d'économie parmi les classes ouvrières des districts de la manufacture des laines.

Classe XXXI.

SOIES ET TISSUS DE SOIE.

1. L'industrie de la soie dans le Royaume-Uni, quoique d'une moins grande importance que celle des autres matières textiles du pays, est cependant considérable. L'extension en a été pendant nombre d'années retardée par un système de prohibition et de restriction sur les importations de soieries étrangères, et la concurrence toujours nécessaire à une grande production lui étant refusée, cette industrie est restée pendant une longue période dans les conditions les moins satisfaisantes. La sécurité contre les rivaux étrangers, et le monopole limité du marché intérieur, dont ce commerce a longtemps joui, ont été cependant achetés à un très-grand prix. Tandis qu'en Angleterre la majorité des manufacturiers se contentait de fournir aux besoins des marchés nationaux sans faire d'améliorations sensibles dans leurs manufactures, à l'étranger on faisait de grands pas en avant dans les divers procédés de la fabrication, et en conséquence à l'inauguration du libre échange, les fabricants de soie anglais se trouvèrent dans une position des plus désavantageuses. Depuis 1851 le commerce de la soie en Angleterre a cependant fait de grands progrès malgré les difficultés nombreuses qui l'entravaient.

De l'année 1850 à 1861 le nombre des filatures de soie dans le Royaume-Uni augmenta depuis 277 dans la première année jusqu'à 771 dans la seconde; le nombre des fuseaux augmenta depuis 1,225,000 jusqu'à 1,338,000, et le nombre des métiers à vapeur depuis 6,092 jusqu'à 10,709. La distribution des filatures de soie en 1861, dans les trois divisions du royaume, était comme suit :—

	Nombre des Filatures	Nombre des Fuseaux	Nombre des Métiers à Vapeur
Angleterre et pays de Galles :			
Cheshire . . .	175	409,470	1,509
Derbyshire . . .	42	98,210	449
Essex . . .	9	155,681	591
Lancashire . . .	48	128,109	4,201
Warwickshire . . .	331	6,732	2,065
Yorkshire . . .	27	122,952	8
Autres comtés . .	129	384,756	1,812
Total . . .	761	1,305,910	10,635
Écosse . . .	8	31,452	60
Irlande . . .	2	1,182	14
Total du Royaume-Uni . . .	771	1,338,544	10,709

Les soieries se produisent principalement à Manchester, les rubans à Coventry, et les soies de fantaisie à Macclesfield.

2. Les matières premières employées dans la manufacture de la soie sont reçues principalement d'Italie, de Chine, des Indes et du Japon, la plus grande partie étant fournie par ces trois derniers pays.

Les quantités de matière première gardées pour la consommation pendant les six années 1860-65 étaient :—

	Soies grèges Livres	Déchet, etc. Livres
1860 . . .	6,024,000	1,784,000
1861 . . .	4,613,000	3,225,000
1862 . . .	5,166,000	2,678,000
1863 . . .	5,368,000	3,455,000
1864 . . .	1,733,000	2,691,000
1865 . . .	4,595,000	3,608,000
Moyenne . . .	4,583,000	2,907,000

On importe aussi une petite quantité de soie moulinée, mais les importations ont considérablement diminué depuis 1860. Les importations en 1865 étaient de 60,130 livres. Les chiffres ci-dessus ont rapport à l'approvisionnement total de soies grèges, dont une partie est employée pour la fabrication des tissus mélangés, des articles de bonneterie, de la dentelle, etc.

3. Le nombre des personnes des deux sexes et de tout âge engagées dans l'industrie des soies en Angleterre et dans le pays de Galles en 1861 était :—

Ouvriers :	Nombre
Au-dessous de 13 ans . . .	2,120
De 13 à 18 . . .	3,185
Au-dessus de 18 . . .	9,996
Total . . .	15,301

Ouvrières :	Nombre
Au-dessous de 13 . . .	4,673
Au-dessus de 13 . . .	31,217
Total . . .	35,890

Total des ouvriers et ouvrières . . 51,191

Il n'y a aucun rapport du nombre des ouvriers employés actuellement.

4. Les gages dans le commerce de la soie de

Manchester ont augmenté de 10 pour cent depuis 1849 jusqu'à 1859; dans cette dernière année la moyenne du taux des gages payés aux principaux ouvriers était :—

	Par semaine de 60 heures	
	s.	d.
Organsineurs et tordeurs	17	0
Fleurs (jeunes gens et garçons)	10	0
Doubleuses	8	9
Monteurs sur métier (hommes)	24	0
Tisserands	20	0

Il a été dit dans un rapport fait par un comité local à l'Association Britannique à Birmingham en 1865, que le nombre des personnes occupées dans le commerce des rubans à Coventry était estimé à 2,000 ouvriers et 4,000 ouvrières en 1864, mais on croyait que le chiffre des ouvrières surtout était au-dessous du nombre véritable. La moyenne des gages payés dans la manufacture des rubans aux bons ouvriers variait de 25s. à 28s. par semaine. Les gages des femmes variaient de 7s. à 10s. par semaine.

5. La valeur des tissus de soie importés dans le Royaume-Uni a augmenté rapidement depuis 1865. L'accroissement est dû à l'extension du commerce entre l'Angleterre et la France en conséquence du traité de commerce entre les deux pays. Les importations principales de France consistent en soies et satins unis grande largeur et rubans.

La valeur totale des tissus de soie importés pendant les six années 1860-65, était :—

	£
1860	3,344,000
1861	5,906,000
1862	6,618,000
1863	6,639,000
1864	7,620,000
1865	8,496,000

La valeur des tissus de soie anglais exportés pendant les mêmes années était :—

	£
1860	1,587,000
1861	1,395,000
1862	1,264,000
1863	1,421,000
1864	1,460,000
1865	1,404,000

7. Une partie de la manufacture des rubans de soie se fait encore dans la demeure des ouvriers, mais la tendance générale est vers la concentration des ouvriers dans les filatures.

Pour beaucoup de causes, l'industrie de la soie est peut-être la plus variable de toutes les industries en matières textiles. L'industrie de la soie en Angleterre, en commun avec celle des autres pays, a souffert matériellement, dans les quelques dernières années, par une maladie des vers-à-soie, et par un changement de mode qui a beaucoup affecté la branche des rubans dans ce commerce. En prenant ces faits en considération, les statistiques du commerce d'exportation des soies anglaises peuvent être regardées comme témoignant une position plus

satisfaisante pour l'industrie des soies qu'on n'aurait pu s'y attendre dans de telles circonstances.

De grands progrès ont été faits dans le fini et la couleur des rubans anglais, et on croit que les échantillons de rubans et autres tissus envoyés à l'Exposition présente montreront qu'un progrès considérable a été fait généralement dans la manufacture de la soie en Angleterre depuis la dernière Exposition de Paris en 1855.

[Pour les articles de *Bonneterie* et de *Lingerie*, voir la Classe 34.]

Classe XXXII.

CHÂLES.

La manufacture des châles a fait de grands progrès pendant les derniers quinze ans dans le Royaume-Uni. Les châles de laine se font principalement en Écosse et dans le comté d'York. Paisley, en Écosse, a depuis plusieurs années été renommée pour l'excellente qualité des marchandises de cette espèce, et Bradford fabrique maintenant des châles de laine en grande variété. Les châles de soie se font principalement à Norwich.

Les principales espèces de châles importés sont le cachemire de l'Inde, le crêpe de Chine, etc., et les châles de laine principalement reçus de France.

Suivent les statistiques du commerce d'exportation de cette classe de marchandises en 1865 :—

	Nombre	£
Châles de laine	431,350	145,570
Foulards, écharpes et châles de soie pure	129,560	235,825
	Douzaines	
Id. de soie mélangée d'au- tres matières	15,513	16,461

De grandes améliorations dans les dessins de châles ont été faites depuis 1851, spécialement dans les marchandises écossaises. Paisley possède une Ecole d'Art, établie en 1848, dans laquelle 1,063 élèves étaient enseignés en 1865.

Classe XXXIII.

DENTELLES, TULLES, BRODERIES ET PASSEMENTERIES.

1. Le siège principal de la manufacture de dentelles par le moyen de machines est à Nottingham et les environs. On en fabrique aussi dans le comté de Derby, à Tiverton, Barnstaple et Chard. Les autres espèces de dentelles se font dans les comtés de Buckingham, Bedford, Oxford et Northampton, et à Honiton et Limerick. Le commerce de la mousseline brodée se fait en Irlande et en Écosse.

Les statistiques suivantes de la fabrication de la dentelle au métier à Nottingham et autres districts en 1866, sont recueillies d'un rapport fait au Ministère de Commerce (Board

of Trade') par la Chambre de Commerce de Nottingham:—

	Nombre
Métiers circulaires à tulle . . .	1,797
Métiers 'Lever' pour dentelles de fantaisie . . .	1,589
Métiers divers . . .	166

Sur les 1,797 métiers circulaires mentionnés au-dessus, 700 étaient employés à Nottingham et dans les environs, 500 dans le comté de Derby, 200 à Tiverton, 100 à Barnstaple, et 300 à Chard. Tous les métiers 'Lever' et 'métiers divers' étaient en opération dans le district de Nottingham.

2. Les sources d'approvisionnement des matières premières employées dans ces industries sont mentionnées aux Classes 27 et 31.

3. Le nombre de personnes employées dans cette industrie à Nottingham et les environs—non compris les filles engagées depuis leur enfance dans les ateliers de patronnes (*mistresses*), souvent leurs propres mères, travaillant en divers genres pour des maisons en gros, etc.—est évalué à 38,000 personnes.

D'après le rapport du jury sur la Classe 24 à l'Exposition de Londres en 1862, l'industrie de la dentelle sur tambour donne de l'emploi à environ 25,000 femmes et enfants, travaillant chez eux; et le commerce de la broderie sur mousseline, en plein travail, à non moins de 200,000 personnes en Irlande et à 25,000 personnes en Ecosse, qui travaillent aussi dans leurs demeures.

4. La moyenne du taux des gages payés aux meilleurs ouvriers dans le district de Nottingham en 1866 était:—

Employés aux métiers à tulle pour la fabrication de toutes espèces de dentelles unies et façonnées.

Ouvriers :	Par semaine	Heures de travail par jour
Garçons . . .	s. s. 5	10½
Jeunes gens . . .	16	Ordinairement deux ouvriers (qui se relèvent) pour chaque métier, travaillent de 9 à 10 heures chacun
Hommes . . .	25	
" chefs de métiers	35 à 50	
Surveillants de la mécanique . . .	35	10½
Ouvrières :		
Depuis 7 ans, raccommodeuses et enfleuses . . .	4 à 8	Heures variables
Raccommodeuses et plieuses . . .	9, 12	Dans les manufactures, 10½; dans les magasins, de 8 heures du matin à 7 heures du soir
Apprêteuses . . .	10	
Surveillantes et gardes-magasin . . .	13, 15	

5. La table suivante montre la valeur des dentelles et broderies importées dans le Royaume-Uni en 1865:—

Dentelles :	£
De poil de chèvre ou laine . . .	256
Dentelles au tambour de fil ou coton . . .	78,861
" " de soie . . .	18,855
Dentelles à la mécanique ou dentelles imitations non-faites à la main . . .	69,734
Broderies et ouvrages à l'aiguille :	
Rideaux brodés sur mousseline ou tulle . . .	16,115
Autres espèces . . .	41,970

La dentelle au tambour s'importe principalement de Belgique, et la dentelle à la mécanique de France.

6. Les exportations des articles de production anglaise, compris dans cette classe, pendant la même année, ont été:—

	£
Dentelle de coton et tulle breveté . . .	465,611
Dentelle de fil . . .	322
Dentelle de soie, pur soie . . .	63,351
" mélangée d'autres matières . . .	84,314
Broderies et ouvrages à l'aiguille de toute espèce . . .	174,670

7. Les divisions de la manufacture faite à la main et à la mécanique ont déjà été mentionnées.

8. M. Birkin, dans son rapport sur le progrès de la dentelle à la mécanique en 1862, dit que 'le genre de travail et des dessins en général s'est beaucoup amélioré, et qu'on a produit des dessins plus compliqués qu'autrefois. Ceci sans doute a été causé par les facilités que l'application du métier Jacquard a données à la fabrication de la dentelle, et par le goût plus correct répandu parmi les dessinateurs par les Ecoles d'Art.' Une École d'Art existe à Nottingham depuis 1843. De grands progrès se sont aussi manifestés dans la fabrication des rideaux de dentelle.

Classe XXXIV.

ARTICLES DE BONNETERIE ET DE LINGERIE; OBJETS ACCESSOIRES DU VÊTEMENT.

1. La manufacture de la bonneterie se fait principalement dans les comtés de Nottingham, Leicester et Derby, et quelques villes des autres comtés de l'Angleterre; à Balbriggan en Irlande; et à Hawick, Galashiels, etc., en Ecosse. Nottingham produit des marchandises de coton et de soie, Derby principalement des articles de soie, et Leicester des articles de laine.

Les statistiques de la manufacture de Nottingham, fournies au Ministère de Commerce par la Chambre de Commerce de cette ville, pour 1866, étaient comme suit:—

	Nombre
Métiers étroits . . .	11,000
Métiers larges . . .	4,250
Métiers rotatoires . . .	1,000
Jeux de métiers circulaires . . .	1,200
Métiers à chaîne . . .	400

Il n'y a aucun rapport récent de chaque espèce de machine employée à Leicester, mais il est constaté par la Chambre de Commerce que les anciens métiers étroits sont remplacés par les métiers larges; aussi que le nombre des métiers circulaires, employés principalement pour les marchandises à bas prix, augmente rapidement. L'accroissement du total de la population dans le district de Leicester, qui était de 67,000 personnes en 1861, et qui dépasse maintenant 80,000 personnes (1866), fera voir, jusqu'à un certain point, les progrès qui se font dans les manufactures du district.

Les derniers rapports de Derby et de l'Écosse sont ceux qui ont été publiés en 1861 : à cette époque il y avait quatre manufactures de bonneterie dans le Derby et quatre en Écosse.

Les commerces de gants et de parapluies sont l'un et l'autre d'une importance considérable; il n'y a cependant aucun compte rendu de la production actuelle de ces articles. Les gants se font principalement à Worcester, Leicester, Nottingham et Londres. Des branches considérables du commerce des parapluies se trouvent dans le comté de Lancaster, et dans la métropole, et il se fabrique à Birmingham une grande quantité de montures de parapluies.

2. Les sources des matières premières employées dans le commerce de la bonneterie sont mentionnées aux Classes 27 et 31.

3. Le nombre de personnes employées dans le commerce de la bonneterie à Nottingham et aux environs est à peu près de 64,000. Il n'y a aucun relevé du nombre de personnes employées dans cette branche de manufacture à Leicester; mais d'après le recensement de 1861, 22,000 furent rapportées.

4. La moyenne du taux des gages payés aux ouvriers dans la bonneterie à Nottingham et Leicester en 1866 était :—

À Nottingham.

		Par semaine	
Employés aux—		s.	d.
Métiers étroits	Hommes, femmes, et garçons	10	6
	Hommes	15	0
Métiers larges	Filles et femmes.	4	0
Métiers rotatoires	Hommes	20	à 32
	Filles et femmes.	5	
Métiers circulaires	Hommes	20	„ 35
	Femmes et garçons	12	„ 20
	Filles et femmes (raccommodeuses)	7	„ 12
Métiers à chaînes	Hommes	16	„ 35
	Garçons	12	„ 20

Les métiers étroits et larges étaient en opération dans 4,700 ateliers, formant une moyenne de 3 à 4 métiers par atelier. Ces ateliers sont d'habitude une partie des demeures des ouvriers. Les ouvriers aux autres machines sont occupés pendant le nombre d'heures ordinaire dans les manufactures.

À Leicester.

		Par semaine de 60 heures	
		s.	s.
Bonneterie unie et tricotés :			
Employés aux métiers étroits (hommes)	}	9	à 15
Employés aux métiers larges (hommes)		20	„ 30
Employées aux métiers circulaires (femmes)	}	12	„ 20
Bonneterie et tricotés de fantaisie :			
Ouvriers ordinaires		14	„ 28
Ouvriers chefs de métier		20	„ 35

La condition générale des ouvriers employés à cette manufacture s'est beaucoup améliorée dans les dernières années.

5. La valeur des principaux articles compris dans cette classe et importés dans le Royaume-Uni en 1865 était :—

	£
Bonneterie de coton	70,502
„ de laine	18,480
Corsets	8,890
Parapluies et ombrelles (soie)	4,722
Cannes	85,200

6. La valeur des principaux articles de production anglaise de la même espèce exportés en 1865 était :—

Bonneterie, tricotés, gants, etc. :	£
De coton	453,837
„ fil	20,091
„ soie	26,698
„ laine.	307,782
Parapluies et ombrelles	160,177

7. Une proportion considérable des articles de bonneterie se fait à la main, mais les produits à la mécanique augmentent annuellement en qualité, quantité et bon marché.

8. Les demandes plus considérables du pays pour les articles compris dans cette classe, ajoutées aux demandes des colonies, ont amené de grands progrès et améliorations dans ces branches de l'industrie nationale. Un des perfectionnements récents les plus notables peut-être à Nottingham est celui de la confection parfaite des bas et des articles de bonneterie par les métiers. On a aussi apporté de grandes améliorations dans les couleurs de la bonneterie de fantaisie.

Classe XXXV.

HABILLEMENTS DES DEUX SEXES.

Il est inutile d'observer que les vêtements de tous genres sont faits en plus ou moins grandes quantités dans toutes les villes et villages du pays. Il y a, cependant, trois industries principales comprises dans cette classe, c'est à dire, la manufacture des chapeaux d'hommes, des chapeaux de femmes, des bottes et des souliers, qu'on peut mentionner comme ayant des localités particulières de production. Quant à la différence des vêtements spéciaux aux divers

métiers et professions, et à la différence marquant des classes particulières de la société, elles ont, à peu d'exception près, disparu en Angleterre. Les costumes nationaux du pays de Galles, de l'Écosse et de l'Irlande se sont, jusqu'à un certain point, maintenus, mais la tendance générale de la classe moyenne et de la basse classe de la société est d'imiter le genre de costume de leurs supérieurs; la principale différence étant dans la forme des vêtements et la qualité des étoffes dont ils sont faits. Dans aucun autre pays du monde, excepté peut-être en Amérique, les classes ouvrières ne s'habillent aussi bien et d'une manière aussi couteuse que dans le Royaume-Uni.

Les chapeaux d'homme se font à Londres, à Manchester et ses environs et dans d'autres parties du Lancashire, dans le Cheshire, à Edimbourg, Glasgow, etc. L'industrie des tresses de paille, qui fournit les matières premières pour la manufacture des chapeaux de paille pour hommes et femmes, se fait principalement à St. Alban's, Dunstable, Tring et quelques autres localités en Angleterre. La manufacture des bottes et des souliers se fait sur une très-grande échelle à Northampton, Norwich et Leicester. Cette dernière ville est une manufacture spéciale en gros de chaussures chevillées au lieu d'être cousues, et donne de l'emploi à plusieurs milliers d'ouvriers.

Le nombre de personnes employées dans quelques-unes des principales branches des industries ayant rapport au vêtement, en 1861, était ainsi qu'il suit:—

Industries	En Angleterre et le Pays de Galles	En Écosse	En Irlande
Taillieurs { Hommes . Femmes .	109,004 27,386	17,276 473	22,523 932
Total .	136,390	17,749	23,455
Modistes { Hommes . Femmes .	803 286,298	31 33,066	— 50,854
Total .	287,101	33,097	50,854
Chapeliors { Hommes . Femmes .	11,502 7,911	707 1,697	886 719
Total .	19,413	2,404	1,605
Fabricants de chapeaux de paille { Hommes . Femmes .	1,740 22,245	313 1,336	15 1,343
Total .	23,985	1,649	1,358
Tresseurs de paille { Hommes . Femmes .	2,128 27,739	1 30	6 162
Total .	29,867	31	168
Bottiers et cordonniers { Hommes . Femmes .	211,233 39,353	26,786 2,093	41,297 5,329
Total .	250,591	28,879	46,536

Le nombre d'ouvrières employées dans la fabrication des chaussures ne comprend pas les femmes des cordonniers, qui pour la plupart aident leurs maris dans quelques parties du travail. D'après le recensement de 1861, le nombre total des femmes de cordonniers dans le Royaume-Uni était de 90,970.

La moyenne du taux des gages payés dans le commerce des bottes et souliers de Leicester en 1865 était:—

	Par semaine de 60 heures
	s. d.
Ouvrières (à la mécanique)	12 0
Ajusteurs (femmes)	11 0
Cloueurs	22 0
Finisseurs	30 0
Coupeurs	23 6

Cinquante pour cent de la manufacture se fait par des ouvrières.

Il n'y a aucune statistique récente du commerce de Northampton, mais d'après le recensement de 1861, environ 20,000 personnes étaient engagées dans le commerce des bottes et des souliers à cette époque.

La moyenne des gages payés dans l'industrie des chapeaux des villes ci-dessous, en 1866, était:—

Chapeaux de Soie	À Bristol	À Edimbourg	À Glasgow
	Par semaine	Par semaine	Par semaine
	s. d.	s. d.	s. d.
Ouvriers qui font la carcasse	25	33	34
Finisseurs (soie)	25	30	36
Tourneurs	30	39	40
Heures de travail par jour	8	12 à 15	10

La valeur des importations et des exportations des chapeaux, coiffures, etc., et des chaussures, était en 1865:—

Importation.

Chapeaux d'hommes et de femmes :	£
De paille	556,065
De feutre	35,812
Tresses de paille	102,886
„ d'autres espèces	30,225
Bottes et souliers	104,693

Exportation (Produits Anglais).

Chapeau d'hommes :	£
De feutre	280,851
De soie	25,909
De paille	166,599
D'autres espèces	10,235
Fournitures de chapeliors	70,343
Tresses de paille, etc. . . .	49,996
Bottes et souliers	1,462,105

La France fournit la plus grande partie des marchandises importées, et l'Australie est le principal débouché des marchandises anglaises exportées.

Il se fait aussi un grand commerce d'ex-

portation du Royaume-Uni de vêtements neufs et d'occasion, qui s'élevait en 1865 à—

Vêtements vieux et neufs	1,933,000
Vêtements d'occasion, et habits de nègres	706,000
Total	2,639,000

Environ la moitié des exportations était pour l'Australie.

Classe XXXVI.

JOAILLERIE ET BIJOUTERIE.

La manufacture de la bijouterie et des imitations est de grande importance dans le Royaume-Uni ; le siège de la manufacture de la bijouterie d'or est principalement à Londres, l'imitation se fait à Birmingham. L'accroissement de la richesse nationale dans ces dernières années a causé une demande considérable de cette espèce de marchandise. Il n'y a aucun rapport de la production des espèces supérieures de bijouterie. La valeur de l'or, de l'argent et des pierres précieuses employés annuellement dans le commerce de Birmingham est évaluée à environ un million et un quart sterling. Le nombre des personnes qui sont employées dans cette branche de commerce à Birmingham est d'environ 7,500, et le taux des gages des ouvriers bijoutiers varie de 25s. à 50s. et quelquefois au-dessus par semaine. Les émailleurs gagnent de 3l. à 5l. par semaine, les garçons de 4s. à 11s.

Le nombre de personnes (non-compris les ouvriers) employés actuellement à Londres dans le commerce de la bijouterie est de—

Bijoutiers	484
„ et orfèvres	159
Ciseleurs	41
Fabricants de boîtes	36

La valeur de la bijouterie importée en 1865, principalement de France et de Belgique, se montait à 87,981l. et des pierres précieuses (excepté les diamants) à 32,000l. La valeur de la bijouterie de manufacture anglaise exportée dans la même année était :—

Bijouterie, etc. d'or, d'argent	94,313
„ d'autres espèces	69,918
	164,231

Dans les dernières vingt années une hausse considérable a eu lieu dans la valeur des pierres précieuses.

On emploie des machines et la vapeur dans quelques branches du commerce de bijouterie, ce qui a permis aux fabricants de faire une grande réduction dans le prix des marchandises.

M. J. S. Wright, dans son rapport sur le commerce de bijouterie de Birmingham, dit

qu'il ne serait pas juste de ne pas mentionner que l'Ecole d'Art établie dans cette ville a grandement contribué au développement du goût artistique parmi les bijoutiers de l'endroit. Plusieurs centaines d'ouvriers y ont été instruits. Les effets de l'instruction qu'ils y ont reçue se feront sentir plus fortement encore dans l'avenir.

Classe XXXVII.

ARMES PORTATIVES.

1. La manufacture des armes portatives se fait à Enfield (fabrique de l'Etat), à Birmingham et à Londres. Les baïonnettes, les machettes et les sabres se font principalement à Birmingham, ces derniers de morceaux d'acier dégrossis (dits 'sword moulds'), fabriqués à Sheffield. La plus grande quantité des armes-à-feu pour l'exportation se fait à Birmingham. Les armuriers de Londres sont célèbres pour le travail et le fini de leurs carabines rayées et fusils de chasse de qualité supérieure. La 'Birmingham Small Arms Association' et la 'London Armoury Company' fabriquent l'une et l'autre des armes-à-feu pour le gouvernement.

2. Le bois employé pour la crosse des fusils est du hêtre provenant principalement des comtés de Gloucester et de Hereford, et du noyer importé d'Italie et d'Allemagne. Le fer employé pour les canons de fusil exige des soins tout particuliers de préparation, et les ouvriers de Birmingham ont atteint un très-haut degré de perfection dans cette fabrication.

3. Le nombre des ouvriers employés dans la manufacture de Enfield, dans les temps de pleine activité, est d'environ 2,000. On évalue que Birmingham emploie plus de 7,000 ouvriers. La manufacture de Londres donnait du travail à environ 2,000 personnes en 1861.

Le nombre total de personnes employées dans la manufacture des fusils en 1861, d'après le recensement, était :—

En Angleterre et le pays de Galles	11,873
Ecosse	204
Irlande	256
Total	12,333

4. D'après un rapport fait par la Chambre de Commerce de Birmingham au Ministère de Commerce, en 1866, la moyenne du taux des gages dans la manufacture des fusils variait comme suit :—

	Par semaine de 60 heures	
	s.	d.
Ouvriers	12	60 0
Garçons	3	15 0
Femmes	6	12 0
Fillles	3	4 6

M. Goodman, Président de la 'Birmingham

Small Arms Company,' dans un rapport à l'Association Britannique en 1865, a constaté que, pendant les derniers dix ans, il était peu douteux que les gages reçus dans la manufacture des fusils n'eussent dépassé ceux de toutes les autres industries, et que, dans quelques-unes des branches qui demandent le plus d'habileté, les ouvriers en pleine activité gagnent de 5*l.* à 6*l.* par semaine.

5. La valeur des armes-à-feu et des sabres de toute espèce importés dans le Royaume-Uni en 1865 se montait à 243,699*l.*, dont 192,000*l.* venaient de Belgique. Le total d'importation de bois de noyer était de 5,689 tonnes, et de crosses de fusil dégrossies était de 5,204 quintaux. Plus de trente-huit millions de capsules ont aussi été importées.

6. D'après le relevé officiel le nombre et la valeur des armes portatives anglaises exportées du Royaume-Uni pendant les cinq années 1861-65 étaient:—

	Nombre	Valeur £
1861 .	315,000 .	515,000
1862 .	702,000 .	1,573,000
1863 .	439,000 .	856,000
1864 .	254,000 .	348,000
1865 .	291,000 .	424,000

La grande exportation au commencement des années ci-dessus a été causée par la demande des États-Unis. M. Goodman est d'avis que ce relevé est au-dessous de la valeur réelle du commerce anglais d'exportation, parceque un grand nombre de fusils de chasse, surtout des qualités les plus chères, sortent du royaume sans passer par les douanes.

Les principales espèces d'armes-à-feu, etc. exportées en 1865, étaient:—

	Nombre
Fusils de munition . . .	173,153
Carabines rayées . . .	85,322
Fusils de chasse . . .	15,505
Revolvers . . .	8,061
Pistolets, etc.	8,994

Epées, coutelas, baïonnettes, etc. 4,538

Capsules Millions 284,895

7. On emploie maintenant des machines pour la fabrication de toutes les pièces des armes-à-feu; par ce moyen l'armurier anglais peut avec succès faire la concurrence aux armuriers étrangers, qui, autrement, à cause du bas prix de la main-d'œuvre dans leurs pays, pourraient vendre meilleur marché que lui sur tous les marchés du monde.

8. Les perfectionnements qui ont été faits pendant les dernières années dans la fabrication des armes portatives, sont si généralement connus qu'il est à peine nécessaire d'en parler ici. Le perfectionnement le plus récent et le plus im-

portant est l'introduction générale du principe de charger par la culasse.

Il y a beaucoup de branches rattachées à ce commerce dans lesquelles l'ouvrier-artiste peut trouver ample occasion de montrer ses talents, et dans lesquelles les fabricants anglais ont déjà fait voir beaucoup de goût. Cependant les ouvriers anglais qui visiteront l'Exposition Universelle feront bien de chercher à s'instruire par la vue des articles exposés par les armuriers de Paris, dont les armes sont renommées pour les beautés artistiques de l'ornementation.

Classe XXXVIII.

OBJETS DE VOYAGE ET DE CAMPEMENT.

La manufacture des malles, sacs de voyage, et autres articles compris dans cette classe, est d'une importance considérable, mais il n'y a aucun moyen de s'assurer de son étendue exacte. De nouveaux genres de portemanteaux sont presque tous les jours inventés, dans le but de satisfaire aux besoins des nombreux voyageurs de nos jours. De grandes améliorations ont aussi été faites dans la confection des sacs de voyage pendant les dernières dix années. La manufacture des couvertures de voyage se fait à Dewsbury et à Huddersfield, et est devenue aujourd'hui une branche considérable du commerce des laines. L'usage de tentes, à l'exception de celles dont on se sert dans l'agriculture, est très-limité dans le Royaume-Uni, la principale manufacture étant pour l'usage de l'armée en station à l'étranger.

Classe XXXIX.

[BIMBELOTERIE.

Des jouets d'espèces diverses (particulièrement des poupées de cire) sont fabriqués largement dans le Royaume-Uni, mais à cause de certaines circonstances spéciales dans le commerce des jouets, il est impossible de préciser la valeur annuelle de la production de ces articles.

Le nombre de fabricants d'articles de bimbeloterie à Londres (non-compris les ouvriers), est de —

Fabricants de jouets . . .	44
Marchands „ „ . . .	153
Fabricants de poupées . . .	19
„ „ chevaux à bas- cule . . . }	8

Le commerce d'importation des jouets étrangers a considérablement augmenté depuis 1850 s'étant élevé de 46,130*l.*, depuis cette année à 163,024*l.* en 1865.

GROUPE V.

(CLASSES XL. à LXVI.)

PRODUITS (BRUTS ET OUVRÉS) DES INDUSTRIES
EXTRACTIVES.

Classe XL.

PRODUITS DE L'EXPLOITATION DES MINES
ET DE LA MÉTALLURGIE.

1. CETTE classe comprend la branche la plus importante des productions nationales du pays. C'est principalement à cause de l'abondance de ses richesses minérales, et spécialement à l'heureuse circonstance de la production du charbon et du fer dans les mêmes localités, que l'Angleterre a atteint une si haute position comme nation manufacturière. Le développement rapide des chemins de fer et de la navigation à vapeur doit aussi être attribué à la même cause. Les résumés suivants de la production de minéraux et de métaux dans le Royaume-Uni en 1865 sont extraits du rapport officiel fait par M. Robert Hunt, Conservateur des Archives des Mines :—

Lieu de Production	Quantités Exploitées
Comtés de :	Tonnes
Durham et Northumberland	25,032,694
Cumberland	1,431,047
York	9,355,100
Derby	4,595,750
Nottingham	1,095,500
Leicester	965,500
Warwick	859,000
Stafford et Worcester	12,200,989
Lancaster	11,962,000
Cheshire	850,000
Shropshire	1,135,000
Gloucester, Somerset et Devon	1,875,000
Monmouth	4,125,000
Pays de Galles (provinces du sud)	7,911,507
Pays de Galles (provinces du nord)	1,983,000
Écosse	12,650,000
Irlande	123,500
Total	98,150,587

Après avoir déduit 9,000,000 de tonnes exportées, et près de 29,000,000 de tonnes employées dans la manufacture de fer en saumons et en barres, etc., il restait encore environ 60,000,000 de tonnes pour la consommation du pays pour les usages domestiques et autres, ou une moyenne de plus de deux tonnes par tête de la population. La moyenne annuelle du charbon produit dans les dix années finissant en 1865 était de 84,960,000 de tonnes.

MINÉRAI DE FER.—La production totale de ce minerai en 1865 s'élevait à 9,910,000 de tonnes ; il a été tiré de vingt comtés anglais,

et du pays de Galles, de l'Écosse et de l'Irlande, les plus grandes proportions étant pour le North-Riding du Yorkshire, Cumberland et Staffordshire.

FONTES DE FER EN GUEUSES.—La fonte totale du fer en gueuses en 1865 était de 4,819,000 de tonnes. La table suivante montre les principales localités de fonte :—

Divisions et Comtés	No. de Fonderies	No. de Hauts- Four- neaux Con- struits	No. de Four- neaux en Acti- vité	Tonnes de Fer en Gueuses
Angleterre :				
Staffordshire (S.)	64	172	114	692,627
York : N. Riding	14	65	53	486,421
Durham	19	65	47	476,767
Staffordshire (N.)	8	35	27	206,268
Lancashire	6	24	16	204,925
Derbyshire	15	41	34	189,364
York : W. Riding	14	38	29	123,233
Shropshire	11	29	23	117,343
Cumberland	4	16	9	107,403
Autres comtés	21	42	24	134,489
Total	176	527	376	2,738,867
Pays de Galles :				
Glamorganshire	18	81	64	408,416
Monmouthshire	10	68	45	357,656
Autres comtés	21	63	31	150,837
Total	49	212	140	916,909
Écosse :				
Lanarkshire	15	101	84	1,163,478
Autres comtés	17	79	57	
Total	32	180	141	

Le nombre suivant de forges et martinets était en activité en 1865, produisant du fer fabriqué :—

Divisions et Comtés	Nombre des Usines	Nombre des For- neaux de Puddlage	Nombre des Laminoirs
Angleterre :			
Staffordshire (sud)	118	2,116	224
Durham	16	688	61
Yorkshire	30	922	115
Autres comtés	34	903	113
Total	198	4,629	513
Pays de Galles	39	1,395	170
Écosse	15	383	47
Total	252	6,407	730

Il n'y a aucune statistique de la production totale de fer fabriqué dans le Royaume-Uni. M. J. Jones, dans un rapport à l'Association Britannique à Birmingham en 1865, a estimé la production annuelle du district du comté de Staffordshire à 855,000 tonnes, et la production des fonderies en rapport avec les houillères de Northumberland et Durham est évaluée à environ 300,000 tonnes par an.

La manufacture de l'acier se fait sur une grande échelle dans le pays, principalement à Sheffield, et dans les comtés de Staffordshire et Northumberland, mais il n'y a aucune statistique de la production totale. On a évalué la production de Sheffield en 1862 à 79,000 tonnes d'acier ampoulé, et à 52,000 tonnes d'acier fondu.

PLOMB.—La quantité de minerai extrait était de 90,452 tonnes, et le plomb produit était de 67,181 tonnes. Le plomb est exploité dans toutes les divisions du royaume; en 1865, la plus grande quantité a été tirée des mines de Durham et de Northumberland.

CUivre ROUGE.—198,298 tonnes de minerai ont été extraites principalement des comtés de Cornouailles, Devonshire et Cheshire; et 11,888 tonnes de cuivre rouge ont été produites dans le Royaume-Uni en 1865.

ÉTAIN.—Ce métal se trouve en Cornouailles et Devonshire, et la quantité de minerai extrait en 1865 était de 15,686 tonnes. 10,039 tonnes d'étain ont été produites la même année.

Du zinc, des pyrites, de petites quantités d'argent et d'or, et diverses autres espèces de produits minéraux non-métalliques sont exploités aussi dans le Royaume-Uni; on y trouve aussi des pierres de construction et de l'argile, en grandes quantités.

Le sel se produit dans le Cheshire, dans le Worcestershire et en Irlande. Les salines de Cheshire peuvent produire 1,000,000 de tonnes par an; la production annuelle des salines du Worcestershire est d'environ 200,000 tonnes. La production du sel en Irlande est comparativement sur une petite échelle.

La valeur totale des productions minérales du Royaume-Uni en 1865 est établie ainsi qu'il suit:—

	£
Métaux	15,773,000
Charbon de terre	24,538,000
Minéraux non-métalliques	1,434,000
	<hr/>
	41,745,000

La valeur du sel, de l'argile et des pierres à bâtir, n'est pas comprise dans les chiffres ci-dessus.

Il serait impossible de donner un aperçu des nombreuses et importantes industries se rattachant à cette classe dans l'espace limité affecté à ces observations. On peut seulement mentionner brièvement que les centres de la fabrication de quincaillerie sont à Birmingham, Wolverhampton, Walsall et Sheffield; des articles de cuivre rouge et jaune à Birmingham et Bristol; des produits galvanoplastiques à Shef-

field et Birmingham; des aiguilles et hameçons à Redditch; des épingles à Birmingham; des fils métalliques à Birmingham, Sheffield, Manchester, etc.; et les outils tranchants à Sheffield.

2. Les matières premières employées dans la fabrication des objets de métal en Angleterre sont principalement tirées du pays même. Des quantités considérables de minéraux et de métaux sont, cependant, importées annuellement. La table suivante montre les quantités des principales importations en 1865:—

Articles	Quantités
	Tonnes
Minerai de cuivre	82,562
Régule	39,686
Cuivre brut ou en partie ouvré	21,717
Minerai de fer	76,977
Fer en gueuses	11,380
en barres	51,464
Acier	6,777
Minerai de plomb	5,584
Saumons et feuilles de plomb	34,903
Minerai d'argent	6,587
d'étain	639
Étain en lingots et en barres	5,698
Zinc en plaques	22,193
laminé	8,492

Le Chili a fourni la plus grande partie du minerai de cuivre et du régule; l'Espagne, la France et la Suède, le minerai de fer; la Suède, le fer en gueuses et en barres et l'acier; l'Italie, le minerai de plomb; l'Espagne, le plomb en saumons et en feuilles; et les Colonies Hollandaises de l'Océanie, l'étain. Le zinc était importé principalement de Belgique, de Hollande, de Hambourg et de Prusse.

3. On a évalué le nombre des ouvriers employés dans les houillères du Royaume-Uni en 1865 à 315,000. Le taux des gages payés aux mineurs et coupeurs, adultes, à Newcastle, en 1866, était de 5s. 9d. par jour de 7 heures. Les gages des ouvriers dans les autres branches en relation avec l'exploitation des houillères variaient de 3s. à 5s. par jour; des garçons de 1s. à 3s. par jour. Les gages nets par tête dans les fonderies de fer du Staffordshire sont évalués à environ 28s. ou 30s. par semaine, mais quelques ouvriers gagnent de 2l. à 4l. À Glasgow les mouleurs de fer, adultes, obtenaient 29s. par semaine de 60 heures en 1866; les garçons, de 4s. à 16s.; pour les autres travaux dans les fonderies, de 15s. à 25s. À Birmingham, dans le commerce du cuivre et laiton, les forgerons, 24s.; les modelleurs, 33s.; les ajusteurs mécaniciens, 30s. par semaine de 58 heures. Les serruriers-ébénistes, 40s. Dans la manufacture des outils tranchants de Sheffield en 1866—les forgers, de 31s. à 36s.; les frappeurs, de 21s. à 24s.; les remouleurs, de 45s. à 50s.; les trempereurs, de 24s. à 28s. par semaine de 42 heures. Il n'y a aucun rapport officiel du nombre de personnes engagées dans ces diverses branches de l'industrie, et à cause de la diversité de leurs occupations, il est à peine possible de former une évaluation correcte.

Le nombre total des personnes occupées dans les travaux relatifs aux mines et aux métaux dans le Royaume-Uni en 1861 peut être estimé à $1\frac{1}{2}$ million de personnes. La condition des mineurs est maintenant le sujet de beaucoup plus d'attention de la part des patrons, qu'elle n'était autrefois, et la plupart des propriétaires de mines et d'usines à traiter les métaux non-seulement font des efforts pour conserver la santé et le bien-être de leurs ouvriers, mais aussi font beaucoup pour encourager l'éducation de leurs enfants, et généralement pour augmenter le bien-être de leurs familles.

4. La valeur totale des objets de métal importés dans le Royaume-Uni en 1865 était de moins d'un demi million sterling. La plus grande partie des importations consistait de marchandises de fer venant principalement de Belgique et de Hollande.

5. Dans la table suivante on verra les quantités des principaux articles de production anglaise, compris dans cette classe, exportés du Royaume-Uni en 1865 :—

Articles	Quantités
Houille et coke tonnes	9,170,000
Cuivre et articles de } cuivre quintaux	632,000
Cuivre jaune	44,000
Quincaillerie	3,924,000
Fer en gueuses tonnes	547,000
„ barres	254,000
Rails, etc., de chemin de fer „	434,000
Autres espèces et articles } de fer „	357,000
Acier	24,000
Plomb	27,000
Objets plaqués	112,000
Sel tonnes	579,000
Étain quintaux	104,000
„ en feuilles	1,481,000
Zinc quintaux	89,000

La valeur totale des articles ci-dessus dépassait 28 millions sterling.

6. Il n'est pas possible de faire de distinction entre les différentes branches de ces manufactures faites à la main et à la mécanique. Cependant la tendance générale est de substituer, autant que possible, les machines au travail manuel.

7. Les progrès dans l'exploitation des mines du Royaume-Uni, depuis la dernière Exposition de Paris, peuvent être inférés par la production croissante de minéraux et de métaux en 1865 en comparaison avec 1855. La production des houilles a augmenté de 59 pour cent pendant cette période; du fer en gueuses de 50 pour cent; de l'étain de 66 pour cent; du plomb de 3 pour cent; tandis que la production du cuivre rouge a baissé de 44 pour cent.

De grandes améliorations ont été faites dans a manufacture de la quincaillerie anglaise depuis 1851, dont la plupart, sinon toutes, ont eu on peut dire, directement ou indirectement, leur origine dans l'Exposition d'Industrie de Londres de cette année. Le travail commencé par l'Exposition a été poursuivi par le Département de Science et d'Art, et au moyen d'expo-

sitions locales et de l'instruction donnée dans les Écoles d'art établies dans les centres des régions manufacturières, un progrès immense a été visible dans le dessin et le style des marchandises anglaises.

Le jury de quincaillerie à l'Exposition de 1862 a rapporté que—'il était satisfaisant de pouvoir constater que, d'une manière ou d'une autre, il y a de l'amélioration dans presque tous les objets exposés. Il y a plus d'élégance et de régularité dans les formes des marchandises à bas prix. Une décoration plus appropriée se fait voir dans les articles qui sont à la fois une utilité et un ornement, et un degré plus élevé de l'art a été atteint dans les objets d'ornement de métal pour les décorations d'appartement et pour les services religieux.'

Classe XLI.

PRODUITS DES EXPLOITATIONS ET DES INDUSTRIES FORESTIÈRES.

Comparés à celles des nations étrangères, les forêts du Royaume-Uni sont de peu d'étendue. La valeur annuelle de la production du bois de construction et pour autres usages est évaluée à environ deux millions sterling. Quoique le chêne ne soit pas le plus abondant, c'est cependant de tous les arbres anglais celui qui a le plus d'importance et de valeur, et on le cultive largement dans les forêts royales.

La production indigène des bois employés pour les constructions est considérablement au-dessous de la demande, et de grandes importations se font annuellement de l'étranger. Beaucoup d'autres produits des exploitations forestières qui ne se trouvent pas dans le pays sont aussi employés en très-grandes quantités. La table suivante montre les principales importations de ces articles en 1865 :—

Articles	Quantités
Cendres, potasse et perlasse quintaux	144,000
Ecorce, pour le tannage et la teinture } „	431,000
Liège	122,000
Bouchons livres	2,012,000
Noix de galle quintaux	16,000
Sumac tonnes	13,000
Cachou	16,000
Avellanède	20,000
Bois de construction et autres :	
Non-sciés ni fendus (bois de teck inclus) } lasts	1,686,000
Sapins, voliges, etc. sciés et fendus } „	2,136,000
Douves	67,000
Bois de chauffage	180,000
Cercles	8,000
Bois de lattes	105,000
Bois de teinture tonnes	44,000
Bois durs	68,000

La valeur totale des articles ci-dessus se montait à 15,888,000/. Une petite quantité de bois de construction étranger est réexporté, mais l'importance n'en est pas assez considérable pour être mentionnée.

Les potasses et perlasse étaient importées principalement des colonies britanniques de l'Amérique du Nord; l'écorce, de la Belgique et de la Hollande; le liège, du Portugal; les bouchons, de France, d'Espagne et du Portugal; les noix de galle, de Chine, des Indes et de Turquie; le sumac, de Sicile; le cachou, de l'Inde et de Singapour; l'avelanède de Turquie; les bois de construction et autres, des possessions anglaises de l'Amérique du Nord, et de la Baltique; le bois de teck, de l'Inde et de Singapour; le cèdre, de l'île de Cuba; et l'acajou, de l'Amérique Centrale et des États-Unis.

Classe XLII.

PRODUITS DE LA CHASSE, DE LA PÊCHE ET DES CUEILLETES.

Plusieurs articles compris dans cette classe, tels que les peaux de lièvres, de lapins, etc., les plumes, la corne, les os, la cire, etc., sont produits dans le Royaume-Uni; mais il n'y a aucun moyen de déterminer les quantités produites. L'approvisionnement des huiles de poisson, et des baleines, est moindre depuis quelques années, principalement à cause de la découverte de substances qui répondent mieux aux besoins pour lesquels ces articles étaient autrefois employés.

Quoique beaucoup des articles les plus importants inclus dans cette classe ne soient pas produits dans le pays, ils y sont néanmoins largement employés. Les chiffres suivants montrent les quantités des principaux produits étrangers de chasse, de pêche, etc. importés dans le Royaume-Uni en 1865:—

Écorce, Quercitron . . .	quintaux	24,954
„ à tan . . .	„	405,856
Os pour manufactures . .	tonnes	8,666
Soies de porc . . .	livres	2,566,000
Liège . . .	tonnes	6,103
Plumes pour literie . . .	quintaux	13,493
„ d'ornement . . .	livres	54,211
Noix de coco . . .	nombre	2,545,000
„ broyées . . .	tonnes	1,939
Gommes . . .	quintaux	182,000
Caoutchouc . . .	„	71,392
Gutta-percha . . .	„	29,077
Poils de vaches, de } bœufs et de chevaux }	„	74,851
Cornes . . .	tonnes	3,678
Colle de poisson . . .	quintaux	2,764
Huile de baleine . . .	tonnes	10,005
„ spermaceti . . .	„	2,438
Plumes d'oie . . .	nombre	10,949,000
Résine . . .	quintaux	459,000
Peaux de lapins . . .	nombre	1,059,000
„ „ daim . . .	„	92,000
„ „ chèvre . . .	„	2,797,000
„ „ chevreau . . .	„	330,000
„ „ agneau . . .	„	708,000
„ „ mouton . . .	„	4,300,000
„ „ veau marin . . .	„	529,000

Ivoire, défenses d'élé- phant . . .	quintaux	10,268
Ivoire végétale . . .	„	22,313
Écailles de tortues . .	livres	39,288
Cire d'abeilles . . .	quintaux	10,600

Les chiffres ci-dessus ont rapport au commerce total de l'importation; dans quelques cas a lieu une réexportation considérable.

Classe XLIII.

PRODUITS AGRICOLES (NON-ALIMENTAIRES) DE FACILE CONSERVATION.

Les principaux articles produits dans le Royaume-Uni et qui entrent dans les limites de cette classe, sont le lin et la laine en nature, les huiles de grains, et l'écorce de chêne. La production des deux premiers articles est mentionnée dans les Classes 28 et 30; mais il n'y a aucun moyen de déterminer l'étendue de la production de l'écorce de chêne dans le pays. Quant à la production de l'huile de grains, il n'y a aucun compte rendu de l'étendue de sa préparation pour les usages domestiques et autres. Cependant on l'exporte largement du Royaume-Uni. En 1865 non moins de onze millions de gallons, évalués à 1,547,000^l, ont été exportés, mais cette quantité n'était pas le produit de grains anglais seulement, de grandes quantités de grains oléagineux étant importés annuellement. En 1865, 1,697,000 de quarts (de quintaux) de graines de lin, de navette, et autres graines oléagineuses ont été importés. En outre de la production indigène de l'écorce, de grandes quantités de matières pour le tannage sont importées. En 1865 les principales espèces importées étaient:—

Écorce pour la teinture et le tannage . . .	Tonnes	20,292
Cachou . . .	„	2,120
'Gambier' . . .	„	13,588
Avelanède . . .	„	19,702
Libidibi . . .	„	3,711
Sumac . . .	„	13,045

Les importations d'huile de grains, principalement de France, de Hollande et de Hambourg, se montaient dans la même année à 12,811 tonneaux, évaluées à 595,000^l.

Classe XLIV.

PRODUITS CHIMIQUES ET PHARMACEU- TIQUES.

La fabrication des produits chimiques constitue une des principales industries du pays; elle n'est pas seulement importante en elle-même, mais aussi parce qu'elle se trouve intimement liée à la fabrication d'autres produits indigènes dans lesquels les premiers entrent pour une large part. C'est dans les environs de Newcastle, Liverpool, Glasgow, Bristol et Birmingham que s'exerce surtout cette industrie,

ainsi que dans diverses localités du Lancashire, et dans les comtés du sud et du centre de l'Angleterre. La manufacture de la plupart des autres articles compris dans cette classe est si disséminée dans tout le pays qu'il est difficile de désigner particulièrement des lieux spéciaux de production.

En ce qui concerne le savon et les chandelles, les qualités ordinaires sont fabriquées dans presque toutes les grandes villes du royaume.

La production du savon est considérable; ainsi, en 1852, c'est-à-dire, l'année précédant le rappel du droit d'accise sur cet article, 203 millions de livres de savon ordinaire et 21 millions de savon noir ont acquitté le droit dans le Royaume-Uni pendant cette même année. Depuis l'abolition de la taxe on n'a fait aucun relevé statistique exact de la production, bien que l'on sache cependant qu'elle a beaucoup augmenté. Aussi longtemps que le savon est resté frappé du droit d'accise, on n'a cherché ni à améliorer sa fabrication ni à la rendre moins coûteuse; mais, après la suppression de ce droit, la chimie a fait de nombreuses et sérieuses expériences sur ce point, et on peut aujourd'hui acheter, à 2*d.* la livre, du savon qui, autrefois, était soumis à un droit de 3*d.* pour la même quantité. De grands perfectionnements ont été réalisés dans la manufacture des différentes sortes de savons parfumés et de toilette, dont la consommation s'est considérablement accrue. Ces derniers sont surtout fabriqués à Londres et dans quelques-unes des principales villes du pays.

Quant aux chandelles, celles faites avec le suif sont produites dans presque toutes les villes du royaume, et leur fabrication fournit de l'occupation à plusieurs centaines d'individus. La manufacture des autres espèces, telles que chandelles de cire et de spermaceti, n'existe guère que dans les grandes villes; et celle des stéarines, des bougies de paraffine et des chandelles moulées, est entièrement concentrée à Londres et aux environs, à l'exception toutefois de deux fabriques en Écosse et une en Irlande. On ne possède aucun renseignement sur le nombre de personnes actuellement employées à la fabrication des chandelles; mais, d'après le recensement de 1861, ce nombre était, à cette époque, pour la Grande-Bretagne, savoir:—

	Hommes	Femmes	Totaux
En Angleterre et le Pays de Galles	4,467	219	4,686
Écosse	298	25	323
Total	4,765	244	5,009

Depuis l'introduction des bougies de paraffine cette industrie s'est améliorée et développée d'une façon remarquable. MM. Field, qui figurent parmi les exposants de cette classe, ont, les premiers, en 1857, fabriqué cette sorte de bougie à laquelle ils ont, depuis cette époque, fait subir de grands perfectionnements, dont le

plus récent consiste dans la forme de l'extrémité inférieure de ces bougies, qui permet de les adapter à n'importe quels chandeliers. Les principaux avantages des bougies de paraffine sont: absence de toute matière grasse, lumière pure et d'une grande puissance de clarté, et prix modéré en égard à leurs qualités. La substance dont sont faites ces bougies les rend susceptibles de recevoir toute espèce de teintes sans nuire en aucune façon à leur lumière.

La fabrication du caoutchouc et de la gutta-percha a pris un développement considérable pendant ces dix dernières années; elle a lieu sur une grande échelle dans diverses parties du royaume. On a également fait beaucoup de progrès, durant la même période, en ce qui concerne les teintures et les couleurs. L'alun, qui forme un article de commerce de quelque importance, est produit, en grande quantité, à Whitby, dans le Yorkshire. MM. Albright et Wilson, de Oldbury, fournissent en abondance du phosphore. Les eaux minérales et autres sont fabriquées dans diverses localités du pays; cette industrie occupait, en 1861, 1,501 hommes et 98 femmes.

Comme il n'existe aucune statistique officielle des productions industrielles du pays, il est impossible de connaître le nombre de personnes employées dans les diverses industries comprises dans cette classe. Le nombre total des chimistes occupés à la fabrication des produits chimiques, accusé par le recensement de 1861, était dans la Grande-Bretagne:—

	Hommes	Femmes	Total
En Angleterre et le Pays de Galles	7,505	243	7,748
Écosse	1,253	50	1,303
Total	8,758	293	9,051

Industrie des Alcalis.

La plus importante des fabrications de cette classe est celle de l'alcali, à laquelle se trouvent rattachées celles du carbonate de soude, de l'acide sulfurique, de l'acide hydrochlorique et des matières utilisées pour le blanchiment. Comme cette manufacture a lieu aujourd'hui sous le contrôle du gouvernement, les relevés des quantités de sel décomposé fournissent un moyen certain de connaître l'extension et l'accroissement de cette industrie. À l'époque de la signature du Traité anglo-français, en 1860, la quantité de sel annuellement employée pour la fabrication de l'alcali, dans le Royaume-Uni, était estimée, par les fabricants eux-mêmes, à environ 250,000 tonnes. Il ressort du premier rapport de l'inspecteur des alcalis, qu'il a été employé environ 300 mille tonnes de ce produit en 1864, et d'après le second rapport concernant 1865, 325,000 tonnes, soit une augmentation de 30 pour cent en cinq ans. Il n'existe pas de relevés exacts des dérivés de ce produit, mais on a fréquemment fait des estimations.

Ainsi le jury sur la Classe 2, à l'Exposition

de 1862, a publié quelques renseignements intéressants sur le commerce de l'alcali dans le Royaume-Uni, et qui lui avaient été fournis par M. C. Allhusen; ils démontraient que, dès l'année 1852, la production de cette industrie présentait les résultats ci-après:—

	Tonnes	Valeur £
Alcali	71,193	711,930
Soude cristallisée	61,044	305,220
Bicarbonate de soude	5,762	86,430
Poudres de blanchiment	13,100	131,000
	151,099	1,234,580

Les chiffres suivants font connaître l'accroissement qui s'est manifesté dans cette production entre les années 1852 et 1861:—

	1852 (d'après les relevés de M. Allhusen)	1861 (d'après les relevés de M. Gossage)
	Tonnes	Tonnes
Alcali	71,193	156,000
Cristaux de soude	61,044	104,000
Bicarbonate de soude	5,762	13,000
Poudres de blanchiment	13,100	20,000

M. Gossage estimait que la valeur totale des produits, en 1861, excédait 2 millions sterling, et à 10,000, le nombre de personnes employées dans 50 établissements environ.

Le tableau suivant indique quelle a été, en 1861, la production des deux districts qui fournissent le plus d'alcali:—

	Newcastle-sur-Tyne	Lancashire (d'après les relevés de M. M. Schunk, Smith, & Roscoe)
	Tonnes	Tonnes
Alcali	35,000	93,600
Cristaux de soude	82,000	8,840
Bicarbonate de soude	12,000	11,700
Poudres de blanchiment	11,400	8,060

M. E. K. Muspratt, Secrétaire honoraire de l'Association des Fabricants d'Alcali du Lancashire, dit que, d'après les relevés des manufacturiers de ce district, la quantité de sel annuellement décomposé est d'environ 170,000 tonnes, ou plus de 50 pour cent, de la fabrication totale du royaume.

Les quantités des produits ci-après mentionnés, fabriqués dans le Lancashire ou district de l'ouest, s'élevèrent, en 1866, à—

	Tonnes
Cendres de soude	81,800
Soude caustique	11,500
Cristaux de soude	23,000
Bicarbonate de soude	6,400
Sulfate de soude (pour vendre comme sulfate)	24,600
Poudres de blanchiment	17,500

La valeur des articles qui précèdent a été, aux prix courants, de 1,726,200*l*.

Outre les alcalis, des quantités considérables d'acide sulfurique (18,000 tonnes) et d'acide hydrochlorique (14,000 tonnes) ont été fournis par le même district, en 1866. On n'a pas relevé les quantités de divers autres articles, mais la valeur totale des produits chimiques du comté peut être évaluée à environ deux millions sterling.

D'après le rapport de M. R. Cail la production de l'industrie des alcalis, dans le district de la Tyne, s'élève actuellement (février 1867) à—

	Quantités	Valeur £
	Tonnes	£
Cristaux de soude	86,000	473,000
Cendres de soude et alcali	74,000	814,000
Bicarbonate de soude	11,000	198,000
Sulfate de soude	2,400	10,200
Poudres de blanchiment	27,000	278,000
Sel d'Epsom	590	4,720
Soude caustique : 70	3,720	96,720
Sel de Glauber	20	135
Acide sulfurique du commerce	9,000	36,000
Sulfate de cuivre	200	5,200
Acide muriatique	700	2,100
Hypo-sulfite de soude	400	7,200
Chlorure de manganèse	1,300	4,550
Total	216,330	1,929,825

Les deux plus grands perfectionnements apportés pendant les cinq dernières années dans la fabrication de l'alcali sont: l'accroissement dans la production de la soude caustique et de la poudre de blanchiment, dont on se sert beaucoup dans les papeteries pour la préparation du sparte que l'on substitue aux chiffons.

C'est à l'abolition des droits d'accise sur le sel, le verre, le savon et le papier, que le commerce de l'alcali en Angleterre doit son développement et ses progrès.

On ne possède aucun renseignement statistique en ce qui concerne les autres produits chimiques, mais il s'en fabrique en abondance dans différentes parties du pays.

En dehors de la production indigène des matières premières employées à la manufacture des articles compris dans cette classe, on en importe considérablement de l'étranger, ainsi qu'on le verra par la table suivante qui indique les entrées, dans le Royaume-Uni, en 1865:—

Articles	Quantités
Alcalis —	
Barille	quintaux 15,762
Potasse et perlasse	„ 143,779
Ammoniaque liquide	livres 11,334
Autres sortes	quintaux 19,352
Alun	„ 10,890
Rocou en tablettes et en rouleaux	„ 3,647
Tartre brut	„ 20,004
Baumes —	
De copahu	livres 230,508
Du Pérou	„ 17,626
Non-désigné	„ 46,240

Articles	Quantités
Écorces—	
Du Pérou	quintaux 15,510
Quercitron	24,954
Baies (jaunes) de nerprun	5,184
Acide borique	20,627
Borax	6,209
Soufre	981,106
Camphre :	
Non-raffiné	10,430
Caoutchouc	71,392
Cochenille	24,260
Crème de tartre	49,165
Cubèbe livres	53,443
Libi-dibi tonnes	3,711
'Gambier'	13,588
Gommes :	
Copale quintaux	8,607
Benjoin	1,883
Arabique	46,032
Laque colorante	11,673
Laque en écailles	46,362
Mastic résineux	1,860
Gutta-percha	29,077
Indigo	66,506
Jalap livres	166,761
Garance quintaux	88,033
En racine	147,482
'Munjeet'	1,837
Garancine (extrait de } garance)	33,571
Minerais de manganèse . . . tonnes	46,478
Naphtes gallons	238,360
Nitre (cubique) . . . quintaux	1,020,383
Huiles—	
De poisson . . . tonneaux	10,005
De spermaceti	2,438
De noix de coco . . . quintaux	190,228
De palme	798,724
De térébenthine	112,129
Huile de pétrole :	
Non-raffiné . . . tonneaux	5,662
Raffiné gallons	2,112,831
Roccelle quintaux	34,298
Paraffine	8,556
Potasse :	
Prussiate de potasse . . . livres	936,298
Sulfate de potasse	1,421,102
Bichromate de potasse . . .	183,352
Muriate de potasse . . . quintaux	49,567
Pyrites de fer ou de cuivre . tonnes	193,626
Quinine (sulfate de) . . . onces	364,089
Salpêtre quintaux	311,390
Salsepareille livres	472,968
Séné	749,389
Smalte (azur) quintaux	1,300
Stéarine	9,298
Suif	1,361,248
Acide tartrique livres	299,810
Térébenthine quintaux	44,428
Outremer	27,512
Eaux minérales gallons	83,580
Cire (d'abeilles) . . . quintaux	10,678
„ végétale	3,079

On ne doit pas oublier toutefois que dans

bien des cas on réexporte une grande proportion de ces articles.

La moyenne des salaires payés aux ouvriers dans quelques-unes des principales branches de la fabrication de produits chimiques du pays était, d'après un rapport présenté au 'Board of Trade' en 1866, par les Chambres de commerce de Newcastle et de Bristol, savoir:—

	À Newcastle par journée de 10 heures	À Bristol par journée de 10 heures
Ouvriers occupés à la fabri-		
cation de—	s. d.	s. d.
L'acide sulfurique	4 6	3 6
Sulfate de soude	4 8	4 8
Soude brute	4 6	4 0*
Carbonate de soude	4 6	4 8
Cristaux de soude	3 8	3 0
Bicarbonate de soude	3 8	—
Poudres de blanchiment	5 2	4 0*
Soude caustique	—	4 6
Chlorure de calcium	—	3 0
Sel ammoniac	—	4 0

* Huit heures par jour.

Le taux moyen, par semaine, des gages payés pour la fabrication du savon, dans les villes ci-après désignées était, en 1866 :—

	À Bristol	À Édim- bourg	À Glasgow
Ouvrier occupé			
à liquéfier le	40s.	25s.	36s.
savon			
Aide	16s. 6d.	15s. à 19s.	18s.
Ouvrier préposé	18s. à 20s.	15s.	12s. à 18s.
à la chaudière			

Heures de travail : 60 heures.

Dans la chandellerie de paraffine la moyenne des salaires payés aux principaux ouvriers est de 30s. à 42s., environ, par semaine. Heures de travail : dix heures et demi par jour.

Les exportations des principales sortes de produits chimiques britanniques, savons, bougies, etc., ont été, en 1865, savoir:—

	Quantités	Valeur
Alcalis :		£
Soude caustique, } cendres de sou- } de et alcali raf- } finé	quintaux 1,799,637	842,170
Cristaux de soude	641,442	199,376
Bicarbonate de } soude	181,715	82,400
Alun	75,166	26,885
Aniline, matières } tinctoriales . } livres	41,165	1,914
Cirage	—	20,674
Matières de blan- } chiment	quintaux 220,140	117,148
Borax (raffiné } dans le Roy- } aume-Uni)	16,897	46,440
Soufre	57,795	31,783
Chandelles :		
Stéarines livres	3,222,585	110,575
Autres sortes	403,838	12,973

		Quantités	Valeur
Caoutchouc, ouvré	£	—	465,700
Couperose . . .	quintaux	79,420	47,721
Drogues et produits chimiques :			
Médicaments	£	—	477,026
Non-énumérés, employés dans la teinture et autres procédés utiles au commerce et aux arts . . .	"	—	442,230
Sel d'Epsom et de Glauber, et pains de sel . .	quintaux	158,648	33,986
Minium . . .	"	68,452	78,890
Blanc de céruse .	"	66,763	91,267
Allumettes chimiques et allumettes de cire .	£	—	104,755
Naphte, huile de paraffine, pétrole, etc.	gallons	1,907,032	236,624
Couleurs et matières non-désignées à l'usage des peintres .	£	—	473,051
Parfumerie . .	"	—	94,351
Sel, gris et blanc	tonnes	579,050	274,631
Salpêtre . . .	quintaux	59,938	93,547
Savon . . .	"	140,241	184,279
Amidon . . .	"	16,445	26,261
Térébenthine (l'huile et l'essence de), et produits tenant lieu de térébenthine . . .	gallons	88,713	22,105

L'exportation de l'alcali et de la soude a considérablement augmenté pendant les dix dernières années. 1,405,000 quintaux seulement ont été exportés en 1856, contre 2,998,000 quintaux en 1866.

Le progrès dans la fabrication des produits chimiques, pendant ces dernières années, s'est largement soutenu au niveau des besoins, et, ainsi qu'on vient de le dire pour ce qui concerne la catégorie importante des alcalis, après avoir satisfait les demandes croissantes de la fabrication indigène, il a permis d'exporter ces articles dans de grandes proportions.

De notables perfectionnements ont été apportés aux procédés de la manufacture de l'acide sulfurique et divers autres produits chimiques, mais surtout à la condensation du gaz hydrochlorique, dans les fabriques d'alcali. Une nouvelle activité s'est manifestée dans le commerce du phosphore : au lieu d'importer ce produit, comme cela avait lieu il y a quelques années, les manufacturiers anglais soutiennent la concurrence avec ceux de l'étranger sur divers marchés du Continent. Grâce à de récentes découvertes la manufacture des chandelles et du savon a réalisé de grands progrès. L'introduction de l'aniline et autres matières tinctoriales analogues a donné lieu à des opérations très-importantes dans ces articles. L'application du caoutchouc à une infinité d'usages commerciaux et domestiques a

aussi fourni de l'occupation à un grand nombre d'ouvriers. L'inspection des objets exposés sous cette classe donnera une connaissance des différentes branches d'industrie qui s'y rattachent, plus exacte qu'il n'est possible de le faire dans l'espace limité qui est accordé à ces remarques sommaires.

Classe XLV.

SPÉCIMENS DES PROCÉDÉS CHIMIQUES DE BLANCHIMENT, DE TEINTURE, D'IMPRESION, ET D'APPRÊTS.

On trouvera indiqués dans les classes consacrées aux matières textiles et tapis, etc., les perfectionnements les plus remarquables apportés aux procédés compris dans la présente classe.

Classe XLVI.

CUIRS ET PEaux.

L'industrie des cuirs a été considérée comme quatrième seulement en importance parmi les industries nationales de la Grande Bretagne. Elle se fait largement à Bermondsey, près de Londres, et sur une moins grande échelle dans diverses parties du pays. En comparaison de la population, il se fait plus de cuir pour l'usage général en Angleterre que dans aucun autre pays. La valeur totale annuelle des articles de cuir était évaluée, en 1851, à quatorze millions sterling; mais cette somme est probablement beaucoup au-dessous de la valeur actuelle, parceque le commerce a constamment augmenté depuis cette année. Il n'y a pas de compte rendu de la quantité de peaux produites dans le Royaume-Uni; mais en outre de la production nationale, qui doit être très-considérable, de grandes importations de peaux se font annuellement de l'Inde, de l'Amérique du Sud, et d'autres parties du monde. Il y a aussi une grande importation de peaux mégissées, tannées et apprêtées.

La table suivante montre les quantités et la valeur des peaux et cuirs importés pendant les cinq années 1861-65 :—

	Peaux	Peaux Tannées, etc.	Valeur Totale
	Quintaux	Livres	£
1861	830,000	5,219,000	2,903,000
1862	943,000	5,512,000	3,204,000
1863	1,023,000	5,202,000	3,230,000
1864	954,000	6,446,000	3,152,000
1865	968,000	7,352,000	3,073,000

Une grande quantité de peaux de l'étranger est réexportée. Les exportations de cuir an-

glais tanné, non-mégissé, se montaient dans les cinq années 1861-1865 à—

	Quintaux	£
1861 . . .	40,000	361,000
1862 . . .	43,000	406,000
1863 . . .	47,000	441,000
1864 . . .	38,000	382,000
1865 . . .	43,000	439,000

Les exportations de marchandises de cuir sont mentionnées dans les classes où ces articles ont été rangés.

Le taux des gages reçus par les tanneurs est

d'environ 25s. par semaine, et par les corroyeurs et apprêteurs de 34s.

Plusieurs nouvelles matières premières pour apprêter les peaux ont été exposées à l'Exposition de Londres de 1862, dont plusieurs ont été jugées par le jury comme également bonnes, si non supérieures à l'écorce de chêne ou tan habituellement employé ; mais l'ancien système de tannage est encore en grand usage.

La préparation de peaux pour gants, de parchemins, de baudruches, et de cordes à boyaux pour instruments de musique se fait aussi dans le Royaume-Uni, mais il n'y a aucun compte rendu de l'étendue de ces industries.

GROUPE VI.

(CLASSES XLVII. à LXVI.)

INSTRUMENTS ET PROCÉDÉS DES ARTS USUELS.

Classe XLVII.

MATÉRIEL ET PROCÉDÉS DE L'EXPLOITATION DES MINES ET DE LA MÉTALLURGIE.

Il faudrait plus d'espace qu'on n'en peut donner ici pour énumérer les espèces presque innombrables d'appareils et de machines employés dans les diverses branches de l'industrie comprises dans cette classe. Le développement des ressources des mines et de la métallurgie du pays est dû principalement à l'emploi des machines : en effet, beaucoup de mines n'auraient jamais été exploitées, et beaucoup de procédés métallurgiques n'auraient jamais pu être accomplis sans l'aide de la vapeur. Il n'y a aucun compte-rendu du nombre des machines à vapeur, ni de la force motrice employées dans les mines et dans les usines et fonderies de métaux du Royaume-Uni. Les machines sont d'ailleurs largement employées pour élever les minéraux du fond des puits, pour épuiser l'eau des mines, et dans quelques cas pour la ventilation, quoique le plus souvent les houillères anglaises sont ventilées par le moyen de fournaies. Des améliorations considérables ont été faites dans les dernières années dans les machines servant à élever les bennes, dans la manière de se servir des fournaies pour la ventilation, et aussi dans la construction des ventilateurs mécaniques. Le sondage des puits par la vapeur est une des plus importantes et des plus récentes inventions. Parmi les objets exposés dans cette classe on trouvera des machines à abattre la houille, et un modèle complet des appareils et de la mécanique employés pour la fabrication de l'acier par le procédé Bessemer.

Quant aux cages de sûreté ou parachutes, aucun des systèmes inventés jusqu'à présent n'a donné une satisfaction générale, quoique plusieurs genres soient en usage.

Les lampes de sûreté employées dans les mines de charbon de la Grande Bretagne sont principalement les anciennes lampes, systèmes 'Davy,' 'Stephenson,' ou 'Geordie,' qui sont toutes protégées par un tissu métallique. Cependant les lampes Mueseler ont été intro-

duites avec succès dans quelques houillères de l'Angleterre.

Classe XLVIII.

MATÉRIEL ET PROCÉDÉS DES EXPLOITATIONS RURALES ET FORESTIÈRES.

La fabrication des machines et outils d'agriculture a atteint un haut degré de perfection dans le Royaume-Uni, et, en outre de la grande production nationale pour l'usage du pays, des machines et instruments d'agriculture s'exportent annuellement en quantités considérables. L'emploi de la vapeur pour beaucoup de travaux agricoles est maintenant très-répandu. Une grande attention a été donnée à l'agriculture dans les dernières années, et au moyen d'un drainage meilleur, d'engrais artificiels, et d'appareils perfectionnés, la fertilité du sol a été beaucoup augmentée. Les charrettes et chariots employés dans le Royaume-Uni pour les travaux d'agriculture sont en général bien supérieurs à ceux qu'on emploie à l'étranger pour ces mêmes travaux.

En mentionnant les progrès récents dans les objets compris dans cette classe, le jury des instruments d'agriculture à l'Exposition de Londres en 1862 a spécialement attiré l'attention sur l'usage croissant des machines à vapeur locomobiles à battre le blé, des charrues et cultivateurs à vapeur, des machines à moissonner et à faucher, et des machines à broyer la nourriture des bestiaux.

La manufacture des instruments et machines d'agriculture se fait largement à Lincoln, Peterborough, Grantham, Bedford, Ipswich, Leiston, Stowmarket et dans beaucoup d'autres parties du pays.

Il n'y a aucune statistique de la production des articles inclus dans cette branche de l'industrie nationale, mais on peut former quelque idée de son importance par le nombre des exposants dans cette classe.

La valeur des instruments d'agriculture exportés du Royaume-Uni en 1865 s'élevait

à 210,000l.; de machines agricoles (excepté à vapeur) à 282,000l.; et d'instruments faits entièrement de fer, à 13,000l. Il n'y a pas de rapport distinct des machines locomobiles pour l'agriculture exportées, mais plusieurs centaines sont expédiées annuellement dans les pays étrangers.

Suivent les principaux articles d'engrais importés en 1865 :—

	Quantités	Valeurs
	Tonnes	£
Os	65,642	362,000
Guanos	237,393	2,676,000
Substances non-énumérées	8,025	49,000

Classe XLIX.

ENGINS ET INSTRUMENTS DE LA CHASSE, DE LA PÊCHE ET DES CUEILLETES.

La manufacture des fusils de chasse se fait principalement à Birmingham et à Londres. Cette industrie est mentionnée dans la Classe 37. La fabrication des appareils de pêche dans le pays a quelque importance. La fabrication des hameçons, des tridents à anguilles, et des harpons, ainsi que celle des appâts et des appareils de pêche est établie principalement à Redditch, et une branche importante du commerce des cannes à pêche, des amorces artificielles, des lignes, flottes, filets, etc., est établie à Londres.

Environ 600 personnes sont employées à Redditch dans la fabrication des hameçons, et d'après le recensement de 1861, 670 personnes étaient occupées en Angleterre et le pays de Galles et 60 personnes en Irlande à la fabrication des cannes et autres engins de pêche. Les mouches et amorces artificielles sont faites à Redditch, principalement par des femmes et des filles. Le taux des gages payés à Redditch est environ de 8s. à 15s. par semaine pour les femmes, et de 12s. à 40s. pour les hommes. À Londres le taux des gages est plus élevé, et les bons ouvriers gagnent de 40s. à 80s. par semaine pour un travail de huit à douze heures par jour. La valeur des appareils et engins de pêche exportés du Royaume-Uni en 1865 s'élevait à 81,000l.

Classe L.

MATÉRIEL ET PROCÉDÉS DES USINES AGRICOLES ET DES INDUSTRIES ALIMENTAIRES.

L'emploi des machines est très-répandu dans le Royaume-Uni pour la fabrication des tuyaux de drainage, pour broyer les os, pour mouder le grain, pour la manutention, et pour diverses autres industries comprises dans cette classe. Il n'est pas possible de retracer ici les nombreux perfectionnements qui ont été apportés dans les

différents genres de mécanique utilisés dans les branches de commerce qui viennent d'être mentionnées; mais l'accroissement continu du nombre des manufacturiers concurrents, tant sur le marché anglais qu'à l'étranger, est un motif suffisant de déterminer les producteurs à s'emparer de tout progrès qui aurait pour résultat d'augmenter la force de production, ce qui les mettra ainsi à même, soit de vendre à plus bas prix, soit de réaliser de plus grands bénéfices que leurs rivaux.

Il n'existe aucun relevé sur la quantité ou la force motrice des machines à vapeur employées dans les industries dont il vient d'être question.

Classe LI.

MATÉRIEL DES ARTS CHIMIQUES, DE LA PHARMACIE ET DE LA TANNERIE.

La multiplicité des procédés employés dans les diverses branches des industries comprises dans cette classe ne permet pas, à cause du peu d'espace dans lequel doivent se renfermer ces remarques, de s'arrêter même aux appareils les plus importants actuellement en usage. Les progrès rapides de la science, dans ces dernières années, ont grandement contribué à perfectionner d'anciens procédés se rattachant aux productions chimiques du pays, et à en inventer d'autres. On trouvera exposés sous cette classe quelques spécimens des plus récents perfectionnements.

Classe LII.

MOTEURS, GÉNÉRATEURS ET APPAREILS MÉCANIQUES SPÉCIALEMENT ADAPTÉS AUX BESOINS DE L'EXPOSITION.

Les articles compris dans cette classe ayant été désignés pour une destination spéciale, c'est à l'autorité compétente qu'il appartient de décider jusqu'à quel point ceux fournis par les exposants anglais ont atteint le but proposé. On lira à la Classe 53 des observations sur les machines britanniques en général.

Classe LIII.

MACHINES ET APPAREILS DE LA MÉCANIQUE GÉNÉRALE.

La prospérité commerciale du Royaume-Uni est due, en grande partie, à la possession d'un abondant approvisionnement de la matière première employée pour la construction des machines, et du charbon nécessaire à leur fonctionnement; les perfectionnements remarquables apportés dans l'application des machines aux innombrables procédés se rattachant aux manufactures nationales ont également contribué à cette prospérité. A défaut d'autres

preuves de l'importance de cette industrie, l'exportation des machines britanniques, qui augmente chaque année, démontre surabondamment le rang élevé qu'elle occupe parmi toutes celles du pays. Les machines et mécaniques sont principalement faites à Manchester, Leeds, Birmingham, Sheffield, Newcastle, Glasgow et autres centres manufacturiers du pays. Celles destinées à l'usage maritime sortent particulièrement des usines de la Tamise et de la Clyde; il s'en construit également ailleurs dans le royaume, et notamment à Newcastle, mais dans des proportions moindres.

Birmingham produit sur une grande échelle des machines hydrauliques, des poulies mouflées, des machines à coudre et à faire les clous, ainsi que des tubes en cuivre et en laiton; ces derniers articles sont également manufacturés à Bristol, Manchester, Liverpool, Newcastle, etc. Les machines agricoles forment aussi une branche importante du commerce des machines en général; mais comme elles sont comprises dans la Classe 74, il est inutile de s'y arrêter davantage ici.

Le nombre d'ouvriers occupés à la manufacture des machines dans chacune des divisions du Royaume-Uni était, d'après le recensement de 1861:—

En Angleterre et le pays de Galles	72,000
(environ)	
Écosse	10,500
Irlande	900
Total	83,400

Les nombreuses subdivisions qui existent dans cette manufacture permettent difficilement de s'assurer du nombre de personnes qui y sont employées. On pense toutefois que les chiffres ci-dessus se rapprochent assez de la vérité.

Il n'existe point de renseignements statistiques complets sur la moyenne des salaires payés dans l'industrie des machines en Angleterre; cependant dans la plupart des branches le travail habilement exécuté est largement rétribué, et la permanence des travaux procure aux ouvriers de cette catégorie une aisance relative. Les derniers relevés qui aient été faits à Manchester sur la moyenne des gages des artisans remontent à 1859, et ils présentaient, à cette date, les résultats suivants: modeleurs, forgerons, chaudronniers et ajusteurs, 32s.; menuisiers, 28s.; raboteurs, 22s.; foreurs, 20s.; frappeurs, visseurs, taraudeurs et mortaiseurs, 18s. par semaine de 58 heures. La moyenne des salaires à Glasgow était en 1866 de 25s. pour les chaudronniers et de 24s. pour les forgerons, par semaine de 60 heures.

En ce qui concerne la construction des machines hydrauliques à Birmingham, cette moyenne est d'environ 55s. par semaine pour l'ouvrier habile, et de 30s. à 40s. pour l'artisan de deuxième ordre.

La valeur des machines britanniques de toutes sortes exportées du Royaume-Uni, qui

était de 2,243,000l. en 1855, atteignait, en 1865, le chiffre de 5,222,000l.

Le tableau suivant indique les principales sortes de machines exportées en 1865:—

Machines et pièces détachées de machines:	£
Machines à vapeur et pièces détachées de machines	Locomotives 945,451 Autres que locomotives } 1,013,082
Autres que machines à vapeur	Machines agricoles } 282,019 Autres sortes } 2,982,081
Total	5,222,633

Dans une classe qui comprend une telle variété d'objets que l'on perfectionne tous les jours, il est bien difficile de retracer en quelques lignes le progrès qui a été fait pendant ces quelques dernières années. Le jury sur la Classe 8 à l'Exposition de 1862, prenant comme type de comparaison les articles exposés au concours international de 1851, dit: 'En ce qui concerne les machines à vapeur, on constate un plus grand emploi du système à haute pression, plus d'expansion et de surchauffage, et l'usage plus répandu de condenseurs de surfaces (ce qui est obtenu au moyen d'un grand nombre de petits tubes horizontaux); une tendance marquée vers la simplification des cages de machines et des principales parties mouvantes, une renonciation complète à certains accessoires plus curieux qu'utiles, et enfin une plus haute perfection de la main-d'œuvre et du fini. Il résulte de toutes ces améliorations une plus grande économie dans le combustible, la force motrice, et les réparations. Tous les perfectionnements qui viennent d'être énumérés sont aussi applicables aux machines pour le service maritime: on constate même, en faveur de ces dernières, un perfectionnement plus frappant encore dans la main-d'œuvre.' On a remarqué également que des progrès considérables avaient été faits dans la fonte et la forge des grosses pièces, ainsi que dans beaucoup de parties détachées de machines et de pièces de mécaniques. On trouvera sans doute parmi les articles exposés sous cette classe la plupart de ceux qui, depuis 1862, ont reçu quelque perfectionnement important.

Classe LIV.

MACHINES-OUTILS.

La fabrication des machines-outils a déjà atteint, dans le Royaume-Uni, un haut degré de perfection, mais elle est susceptible de recevoir encore de nombreuses améliorations, notamment sous le rapport de la simplicité dans la construction de certains outils, et de leur emploi pour une grande variété d'usages.

Les machines-outils sont faites sur une grande échelle à Manchester, Sheffield, Leeds, et dans

plusieurs autres villes du royaume. Depuis l'emploi de la vapeur comme force motrice, l'usage des machines-outils s'est répandu dans des proportions énormes, et les manufactures les plus importantes du pays exécutent aujourd'hui bien peu de travaux autrement que par le moyen des machines et des machines-outils.

Les principaux avantages résultant de l'emploi des machines-outils comparées avec le travail à la main sont : augmentation de la puissance productrice, et plus de précision et de régularité dans la quantité du travail accompli ; d'un autre côté, cette augmentation de force productrice, garantie au fabricant par l'emploi de ces outils, lui permet de payer un salaire élevé aux artisans habiles, contribuant ainsi à améliorer la position des ouvriers.

Il n'existe aucun rapport sur le nombre de personnes occupées dans cette branche de l'industrie, ni sur la valeur annuelle des articles produits. Cependant, outre la fabrication de ces articles pour les besoins du pays, il s'en exporte considérablement. En 1865 l'exportation des machines, etc. ayant plus ou moins de rapport avec cette classe a été :—

	£
Machines à vapeur et pièces détachées (autres que les locomotives)	1,013,000
Mécaniques et pièces pour la construction des moulins (autres que machines à vapeur)	2,982,000
Outils et instruments destinés à l'industrie, mais qui ne sont pas classés comme machines	87,000

L'établissement, dans les différentes villes manufacturières, des Ecoles de science et d'art du gouvernement a été très-profitable à la classe des ouvriers employés à la construction des machines et des machines-outils ; l'instruction qu'ils y reçoivent non-seulement en fait de meilleurs artisans, mais les rend capables de perfectionner les anciennes machines et d'en inventer d'autres ; ils augmentent ainsi la puissance manufacturière du pays en même temps que leur position s'élève sur les degrés de l'échelle sociale.

Classe LV.

MATÉRIEL ET PROCÉDÉS DU FILAGE ET DE LA CORDERIE.

La fabrication des cordes, cordages, etc. est très-répandue dans tout le pays, mais les principaux centres de cette industrie sont à Liverpool, Newcastle et autres ports de la Tyne, à Londres, et dans quelques villes maritimes de l'Ecosse. On fait également des cordages destinés au service de la marine, dans les arsenaux de l'Etat. L'extension rapide de l'emploi des cordes en fil de fer pour le grée-

ment des navires, pour l'usage des houillères et pour divers autres objets, a amené de grands perfectionnements dans la manufacture des cordes. Les deux câbles sous-marins qui existent aujourd'hui entre le Royaume-Uni et l'Amérique marquent suffisamment la haute position à laquelle est parvenue en Angleterre la fabrication des câbles en fil métallique. En ce qui concerne les machines employées pour le filage, elles sont respectivement mentionnées dans les classes consacrées aux manufactures textiles. Toutefois on trouvera exposées sous cette classe diverses machines montrant les derniers perfectionnements qui ont été faits dans cette partie de la mécanique.

Le nombre de personnes occupées à la confection des cordes, câbles, etc. était, d'après le recensement de 1861 :—

	Hommes	Femmes	Total
En Angleterre et dans le pays de Galles }	11,762	1,724	13,486
Ecosse	2,313	267	2,580
Irlande	1,132	33	1,165
Total	15,207	2,024	17,231

Les matériaux employés à la manufacture des cordes arrivent surtout de Russie, d'Italie et des Indes Orientales ; les principaux articles de ce genre importés en 1865 étant :—

	Quantités	Valeur
Fil de chanvre, etc. pour câbles (excepté la bourre de coco)	livres . 11,082,747	£ 163,932
Bourre de coco pour câbles	quint. 97,674	177,609
Chanvre apprêté et non apprêté	„ 1,065,705	1,704,187

Les chiffres ci-dessus représentent l'importation totale du chanvre, dont une partie seulement est utilisée pour la corderie.

Les câbles en fil métallique se font principalement à Gateshead et à Birmingham, et les fils servant à leur confection sont en grande partie fournis par cette dernière ville.

Les quantités et valeurs des cordages et ficelles britanniques exportés en 1865 étaient, savoir :—

	Quantités	Valeur
Câbles et cordes :		£
De chanvre	quint. 130,715	268,677
Autres sortes	„ 14,009	27,692
Ficelles	„ 23,449	117,844

Les câbles en fil de fer ne sont point distingués, dans les exportations, des autres produits en fils métalliques.

Classe LVI.

MATÉRIEL ET PROCÉDÉS DU TISSAGE.

Les principaux ateliers pour la construction des machines à tisser et à filer sont ceux de

Manchester, Oldham, Bury et autres lieux du Lancashire, de Leeds, Halifax et Bradford dans le Yorkshire, et de Glasgow et Dundee en Ecosse. Bien que ces machines aient subi de grandes améliorations, elles reçoivent cependant tous les jours de nouveaux perfectionnements qui ont pour but de les compléter davantage, de les faire agir d'elles-mêmes, et d'augmenter leur puissance de production. L'inspection de la série complète des machines à préparer, filer et tisser le coton et les laines, exposées dans la Classe 55, par la maison bien connue de MM. Platt et Cie., pourra, mieux que ne saurait le faire une courte description, donner une idée exacte du genre de mécaniques actuellement en usage dans les filatures anglaises.

Il n'y a point de relevés statistiques du nombre de personnes employées à cette branche de la manufacture des machines du pays.

Il s'exporte annuellement une grande quantité de machines industrielles, ainsi, du reste, qu'on pourra le voir aux observations contenues dans la Classe 53.

Classe LVII.

MATÉRIEL ET PROCÉDÉS DE LA COUTURE ET DE LA CONFECTION DES VÊTEMENTS.

Les appareils ou procédés les plus importants compris dans cette classe sont ceux pour la couture et la confection des souliers à la mécanique. C'est en 1845 ou 1846 que les premières machines à coudre furent introduites d'Amérique en Angleterre : elles ont depuis cette époque reçu de nombreux perfectionnements, et sont aujourd'hui presque universellement employées, aussi bien pour le travail simple que pour le compliqué. Le jury, à l'Exposition de Londres en 1862, a constaté que des progrès considérables avaient été faits dans la fabrication des bottines et des souliers à la mécanique pendant les dix dernières années écoulées depuis 1851. Il se fait depuis quelques années à Leicester un commerce considérable pour la vente en gros de bottines et souliers cloués ou chevillés, principalement pour femmes et enfants.

Les machines de MM. Greenwood et Batley pour le chevillage des souliers et la taille des chevilles ont été hautement recommandées par le jury en 1862, et elles ont obtenu une médaille. Comme la manufacture des chaussures à la mécanique réalise, comparativement au travail à la main, une grande économie dans les frais de fabrication, on espère que la présente Exposition mettra au jour quelques nouveaux perfectionnements apportés aux machines dont on se sert actuellement dans cette importante branche de l'industrie.

Classe LVIII.

MATÉRIEL ET PROCÉDÉS DE LA CONFECTION DES OBJETS DE MOBILIER ET D'HABITATION.

Plusieurs des appareils rentrant dans les limites de cette classe, tels que machines à couper le bois, à raboter, à faire les moulures, etc., sont compris dans la Classe 54, comme machines-outils. La mécanique est aujourd'hui si généralement employée dans toutes les branches de l'industrie manufacturière du Royaume-Uni, que faire même une simple allusion aux différentes sortes de machines en usage serait dépasser les limites de ces observations.

La tendance toujours croissante des principales manufactures du pays à se concentrer entre les mains de grandes sociétés ou compagnies disposant de capitaux considérables a eu pour résultat d'augmenter l'emploi des machines ; ce qui facilite les vastes opérations de ces compagnies et réduit les dépenses de la main-d'œuvre. On trouvera à la Classe 53 quelques remarques sur les localités possédant les principaux ateliers de construction.

Classe LIX.

MATÉRIEL ET PROCÉDÉS DE LA PAPETERIE, DES TEINTURES ET DES IMPRESSIONS.

L'importance du commerce des papiers a déjà été signalée dans les observations sur la Classe 7 ; mais bien que la production de cet article ait considérablement augmenté ces dernières années, peu de perfectionnements ont été ajoutés à la machine-continue à faire le papier sans fin, inventée vers le commencement de ce siècle. On trouvera exposés sous cette classe des spécimens de machines actuellement en usage. Le principal progrès qui ait été apporté, depuis 1851, dans les procédés se rattachant à l'imprimerie est l'introduction de la machine à fondre et d'appareils à composer et à distribuer les caractères. Pour faire face aux besoins résultant de l'accroissement énorme des demandes de livres, de journaux et de publications périodiques, qui s'est manifesté pendant ces dix dernières années, on a dû également perfectionner les presses à imprimer. L'exportation des diverses sortes de machines figurant dans cette classe n'est pas enregistrée séparément, mais elle se trouve comprise dans les relevés généraux dont il est fait mention à la Classe 53. La valeur des caractères et du matériel d'imprimerie d'origine britannique exportés du Royaume-Uni en 1865 s'élève à 68,930/.

Classe LX.

MACHINES, INSTRUMENTS ET PROCÉDÉS USITÉS DANS DIVERS TRAVAUX.

Bien qu'il n'y ait pas eu de grands changements, ces dernières années, dans les procédés

mécaniques employés pour la manufacture de la plupart des articles compris dans cette classe, de notables perfectionnements ont cependant été apportés aux machines déjà existantes. La fabrication des boutons, des épingles, des plumes métalliques et des aiguilles constitue une branche considérable de l'industrie du pays. Le principal siège de cette fabrication est à Birmingham et aux environs. On estime à 6,000 le nombre de personnes occupées à la manufacture des boutons, et la moyenne des salaires par semaine est d'environ 25s. pour les hommes; de 7s. à 9s. pour les femmes; et de 1s. à 1s. 6d. pour les jeunes filles et les enfants. Il n'a pas été fait de relevés statistiques sur le nombre d'ouvriers actuellement employés à la fabrication des épingles; mais, d'après le recensement de 1861, ce nombre était, à cette époque, pour l'Angleterre et le pays de Galles de 729, dont 322 hommes et 407 femmes. Les épingles sont aujourd'hui presque entièrement produites au moyen de procédés mécaniques. On se sert d'une machine qui, à chaque tour d'une seule roue, donne une épingle parfaite. Les aiguilles sont principalement faites à Redditch, et cette industrie fournit du travail à 8,000 personnes environ. La moyenne des gages par semaine est de 12s. à 40s. pour les hommes, de 8s. à 15s. pour les femmes, et de 1s. 6d. à 5s. pour les enfants. MM. Bartlett et Woodward, dans leur rapport sur le commerce des aiguilles de Redditch, affirment que la condition sociale des ouvriers employés à cette fabrication est, au point de vue de l'ordre et de la propreté, généralement au-dessus de celle de la moyenne des autres classes de travailleurs. Avant d'être terminée et prête à servir, une aiguille passe par les mains de 70 personnes différentes. Le centre manufacturier des plumes métalliques se trouve à Birmingham. Cette industrie occupe environ 360 ouvriers et 2,000 femmes et enfants. Il se fait 98,000 grosses de plumes par semaine. La majeure partie de l'acier employé à cette fabrication est tirée de Sheffield. Les informations qui précèdent sont extraites d'un rapport de M. Timmins, qui a également reconnu que la condition des ouvriers en plumes métalliques était très-satisfaisante. Le gain des filles varie de 5s. à 12s. par semaine, et 2s. 6d. à 3s. 6d. seulement pour celles qui sont plus jeunes: quelques habiles ouvrières se font de 15s. à 20s. Les hommes gagnent de 18s. à 20s., les jeunes garçons de 4s. 6d. à 16s., selon leur dextérité, et les ouvriers adultes de 30s. à 80s. par semaine. Les heures de travail varient de 52½ à 57 heures par semaine. On trouvera dans les contingents de Birmingham, Studley et Redditch, exposés sous cette classe, des spécimens des procédés utilisés à la fabrication des plumes métalliques, des épingles, et des aiguilles.

Classe LXI.

CARROSSERIE ET CHARRONNAGE.

Le principal centre de la carrosserie se trouve à Londres, bien que cette industrie s'exerce également à Édimbourg, Dublin, Liverpool, Derby, Manchester, Nottingham, Glasgow, Southampton, Newcastle et autres villes du royaume.

Le nombre de personnes employées dans cette branche de commerce était, en 1861, pour chacune des divisions du pays—

	Carrossiers	Charrons
Angleterre et Pays de Galles .	18,870	30,070
Écosse : : : : .	1,550	1,282
Irlande : : : : .	3,000	591
Total . .	23,420	31,943

Il n'existe aucun rapport général sur la moyenne des gages payés aux ouvriers employés à la carrosserie, mais, en ce qui concerne Édimbourg seulement, cette moyenne était en 1866, savoir:—

	Par Semaine de 57 Heures			
	1re Classe		2e Classe	
	£	s. d.	£	s. d.
L'ouvrier,				
Serrurier : : .	1	7 0	1	2 0
Ménisier : : .	1	10 0	1	2 0
Chargé de faire le train de la voiture }	1	3 0	—	
Peintre . . .	1	2 0	1	0 0
Garnisseur . . .	1	5 0	1	0 0
Charron . . .	1	2 0	0	18 0
Qui fait les ressorts .	1	6 0	—	

Le rapport de l'Exposition de Londres, en 1862, sur la carrosserie, a constaté un progrès favorable survenu dans la condition des ouvriers employés à la construction des voitures; les habitudes d'intempérance avaient diminué en même temps que l'éducation s'était développée. Les succès de la carrosserie dépendent beaucoup d'une profonde connaissance des principes mécaniques, du dessin et de l'harmonie des couleurs, il est donc nécessaire que les personnes occupées dans cette branche de l'industrie reçoivent une solide éducation artistique.

La valeur applicable à l'importation, dans le Royaume-Uni, de la carrosserie en général, s'est élevée à 5,800l. seulement, en 1865. L'exportation de la carrosserie britannique proprement dite est représentée, pour la même année, par une somme de 175,000l.; celle des charriots, charrettes, etc. par 8,400l. Une grande partie de la carrosserie a été envoyée aux Indes Anglaises.

Parmi les progrès introduits dans la carrosserie, on doit mentionner l'emploi de la mécanique pour l'exécution de quelques-unes de ses parties. Il est douteux, cependant, en présence de la nature spéciale des travaux, que les machines soient utilement employées pour la construction des voitures particulières, qui

étant nécessairement subordonnées au goût et au caprice de ceux qui les commandent, peuvent différer du tout au tout. Des progrès considérables ont été faits depuis 1851 en ce qui concerne le dessin, la peinture et la légèreté des voitures de luxe, ainsi que dans l'outillage nécessaire à leur construction.

Par suite du développement qu'a pris l'institution des chemins de fer dans le pays entier, la demande des chars, charrettes-couvertes et charriots a considérablement augmenté, et plusieurs genres de véhicules ont été nouvellement inventés pour les transports à destination des marchandises arrivant aux différentes gares de chemins de fer. De grands perfectionnements ont également été faits, depuis 1851, dans la construction des omnibus faisant le service de la métropole et dans celle des voitures de déménagements.

Les wagons de chemins de fer sont mentionnés dans la Classe 63.

Classe LXII.

BOURRELLERIE ET SELLERIE.

1. La bourrellerie et la sellerie anglaises sont depuis longtemps célèbres pour l'excellence de la qualité et de la main-d'œuvre. Les principaux centres manufacturiers sont à Walsall, Birmingham, la métropole et Glasgow; ce commerce existe également dans d'autres villes du royaume. Plusieurs industries d'un ordre secondaire se rattachent à celles de la bourrellerie et de la sellerie, telles que la fabrication des mors, des étriers, des chaînes et autres objets accessoires qui se font presque entièrement dans les mêmes localités.

2. Presque tout le cuir absorbé par le commerce est tiré du pays.

3. Le recensement de 1861 a réparti ainsi qu'il suit le nombre des personnes employées dans cette branche de l'industrie :—

Angleterre et pays de Galles	18,229
Écosse	1,822
Irlande	2,968
Total	23,019

Et probablement de 500 à 600 personnes occupées à faire les pontets et la quincaillerie de sellerie.

4. A Walsall les gages des bourrelliers et des selliers est un peu au-dessus de la moyenne. Les ouvriers gagnent de 20s. à 45s. par semaine; les femmes et les filles peuvent se faire de 8s. à 13s. par semaine. Le salaire des apprentis pour la première année est de 3s. et vers la fin de leur apprentissage de 12s. à 14s. par semaine. Les heures de travail sont de 7 ou de 8 heures du matin jusqu'à 7 heures du soir. Les manufactures de bourrellerie et de sellerie à Walsall sont très-propres et bien bâties.

On a constaté que 60 pour cent des emplois à Walsall sont occupés par des femmes, dont

beaucoup font le travail chez elles. L'introduction des machines à coudre pour le piquage des harnais a considérablement réduit le labeur dans cette branche du commerce.

5. L'importation de la bourrellerie et de la sellerie en Angleterre est, pour ainsi dire, nulle.

6. La valeur de la bourrellerie et de la sellerie britanniques exportées du Royaume-Uni, pendant les cinq années 1861-65, était de—

1861	£ 307,700
1862	343,600
1863	341,600
1864	345,900
1865	350,500

La plus grande partie de ces exportations était destinée aux colonies britanniques, principalement à l'Australie.

7. M. Franklin, dans son rapport sur les industries de Walsall, en 1865, dit :—' Il est à remarquer que le génie de l'invention s'est bien peu manifesté dans cette industrie. En effet, la bourrellerie et la sellerie n'ont subi presque aucun changement dans l'aspect et la forme, depuis 1849; la selle dite "Nolan," inventée pendant la guerre de Crimée, et qui est aujourd'hui généralement adoptée pour le service de l'armée, est la seule exception à signaler; cette selle ne peut toutefois convenir qu'à l'usage militaire. Il a néanmoins été fait de grands progrès dans l'ornementation de la sellerie et de la bourrellerie, et un grand nombre des selliers qui font cette spécialité ont reçu, dans les écoles de dessin, une instruction complète sur cet art.'

Classe LXIII.

MATÉRIEL DES CHEMINS DE FER.

On ne saurait nier que la prospérité du pays est due, en grande partie, à l'extension des moyens de communication qui existent sur tous les points du royaume, et parmi lesquels les chemins de fer doivent être placés au premier rang. À l'époque où nous vivons, et lorsque le 'temps c'est de l'argent,' la possession de moyens rapides de communication est devenue une nécessité absolue, et l'Angleterre peut, à juste titre, réclamer l'honneur d'avoir inauguré le système actuel de chemins de fer, qui a, pour ainsi dire, triomphé du temps et de la distance.

La fabrication du matériel des chemins de fer a lieu dans différentes parties du pays; les rails, coussinets, etc. se font ordinairement dans les districts où l'on extrait le fer, et les rails d'acier à Sheffield. La construction des locomotives s'opère sur une grande échelle à Newcastle, Manchester, Leeds, Glasgow et autres villes, ainsi que dans les ateliers particuliers de quelques-unes des grandes compagnies de chemins de fer. À Birmingham on construit un nombre considérable de wagons

pour voyageurs, de fourgons et autres sortes de voitures pour le transport des marchandises.

Il n'existe point de statistique générale sur la quantité de matériel des chemins de fer produite dans le Royaume-Uni, une partie de ce matériel étant comprise dans le commerce de la quincaillerie du pays. D'après un ouvrage sur les ressources de la Tyne, de la Wear, et du district de la Tees, publié en 1864, 2,400 locomotives étaient sorties des ateliers de Newcastle seulement, depuis l'origine des chemins de fer, et, de ce nombre, plus de 900 avaient été envoyées à l'étranger.

En adoptant le prix moyen de 2,000*l.*, la valeur brute des locomotives exportées se serait élevée à 1,800,000*l.* Il convient d'ajouter à ce chiffre la valeur des locomotives construites pour les besoins de la Grande-Bretagne et de l'Irlande, soit, au prix de 1,500*l.*, 2,700,000*l.*, donnant ainsi un total général de 4,500,000*l.* sterling.

M. Timmins, dans un rapport sur la fabrication du matériel-roulant à Birmingham, dit que la construction, dans cette ville, des wagons, fourgons, etc. remonte déjà à 1838, et, par suite de la position centrale qu'occupe Birmingham, ce commerce a, depuis, pris des proportions considérables. On pourra se former une idée de l'importance de cette industrie en songeant que la longueur totale des lignes de chemins de fer actuellement livrées à la circulation dans le royaume s'élève à plus de 13,000 milles, employant environ 18,000 wagons pour voyageurs et 233,000 fourgons, etc. pour le transport des marchandises. M. Timmins estime à 17,000,000*l.* la valeur du matériel-roulant du pays, subissant une dépréciation annuelle de 1,250,000*l.* Le nombre des locomotives employées sur les chemins de fer du royaume, en 1865, était de 7,414.

Cependant, outre le matériel fourni pour les besoins des chemins de fer à l'intérieur, il s'en exporte aussi une grande quantité. Le tableau suivant indique quels ont été, en 1865, les principaux articles d'origine britannique, compris dans cette classe, exportés du Royaume-Uni :—

	Quantités	Valeur
Wagons de chemins de fer :	Nombre	£
Pour voyageurs . . .	1,261	177,000
Fourgons, camions, etc.	580	22,000
Fer, voie ferrée :	Tonnes	
Rails et tirans . . .	330,588	2,627,000
Coussinets et traverses	76,098	393,000
Roues et essieux . . .	4,872	118,000
Divers . . .	23,000	412,000
Machines à vapeur et pièces détachées :		
Locomotives . . .	—	945,000

Les relevés statistiques suivants pourront donner une idée du développement général des chemins de fer dans le Royaume-Uni pendant les onze années, de 1855 à 1865 :—

	En 1855	En 1865
Longueur des lignes ouvertes	Milles 8,280	Milles 13,289
Total du capital versé, actions, emprunts, etc.	£ 297,584,000	£ 455,478,000
Nombre des voyageurs transportés	118,595,000	251,960,000
Nombre de voyageurs par mille	14,323	18,960
Total général des recettes	£ 21,507,000	£ 35,731,000
des dépenses	10,299,000	17,149,000
Excédant net des recettes	11,208,000	18,582,000

Au nombre des plus récentes innovations on doit mentionner l'emploi de l'acier pour les rails, bandes, etc. et l'invention de l'appareil à rail central pour plans inclinés.

Des perfectionnements considérables ont aussi été apportés dans les locomotives; M. Humber, dans son ouvrage récent sur l'art moderne de l'ingénieur, énumère les suivants: adaptation de l'appareil permettant aux locomotives d'être chauffées au charbon au lieu du coke, et d'absorber leur propre fumée; le chauffage de l'eau d'approvisionnement par la vapeur perdue; le contrebalancement des parties de la machine exécutant un mouvement de rotation et de va-et-vient, d'où résulte une diminution considérable dans l'usure de la voie et de la machine, et la possibilité d'entretenir, sans danger, une grande vitesse dans la marche; et, enfin, le moyen de surchauffer la vapeur dans son trajet vers les cylindres, de façon à maintenir sa chaleur normale, et à diminuer la perte de force causée par la condensation.

Classe LXIV.

MATÉRIEL ET PROCÉDÉS DE LA TÉLÉGRAPHIE.

Le jury de la Classe 13 à l'Exposition de Londres en 1862 a constaté qu'il n'y avait point eu, depuis le concours international de 1851, de grandes découvertes dans la science électrique, ni aucune importante application pratique de principes. D'un autre côté, le système de la télégraphie a pris une grande extension, notamment celui de la télégraphie sous-marine au moyen de câbles. Le plus grand fait qui se soit accompli depuis 1862 est, sans contredit, la pose du nouveau câble qui relie l'ancien et le nouveau monde. C'est en 1866 qu'a été couronnée de succès la troisième tentative faite pour établir une communication télégraphique entre l'Irlande et la Terre-neuve, comprenant une distance de 1,670 milles marines. On a non-seulement posé un nouveau câble, mais celui qui s'était rompu l'année précédente a été repêché du fond de l'océan, et prolongé jusqu'aux rivages du nouveau monde, créant ainsi une double ligne de communication. La plus grande profondeur d'eau qu'on ait ren-

contrée a été de 2,400 brasses, ou moins de deux milles et demi marins. C'est en 1858 qu'a été posé le premier câble, qui fut complété et qui marchait depuis trois semaines lorsqu'il cessa tout à coup de fonctionner. Le deuxième, dont la pose s'est effectuée en partie en 1865, se rompit au milieu de l'océan. Le câble de 1858 était de fabrication beaucoup plus légère que les suivants; sa force de résistance était de 3 tonnes 5 quintaux, ou égale à 4.85 fois son poids, par nœud, dans l'eau; tandis que, pour le câble de 1865, cette force était de 7 tonnes 15 quintaux, et de 8 tonnes 2 quintaux pour celui de 1866, ou égale à 11 fois leur propre poids, par nœud, dans l'eau. D'après un exposé de la Compagnie du Télégraphe Transatlantique, la vitesse de transmission par le nouveau câble de 1866, et avec les appareils récemment perfectionnés, n'est pas inférieure à huit mots par minute.

Il résulte d'un rapport publié par le 'Board of Trade' (Ministère du Commerce) qu'il y avait, en 1865, dans le Royaume-Uni, et non compris les lignes le long des chemins de fer et de particuliers, 16,953 milles de lignes télégraphiques, employant 80,123 milles de fil de fer, et environ 8,000 appareils. L'augmentation des télégraphes privés, dans la métropole et autres grandes villes, a été considérable pendant ces quelques dernières années. Le matériel de la télégraphie a également reçu de nombreux perfectionnements.

Classe LXV.

MATÉRIEL ET PROCÉDÉS DU GÉNIE CIVIL, DES TRAVAUX PUBLICS ET DE L'ARCHITECTURE.

Le progrès qui a été fait en Angleterre, depuis la dernière Exposition Universelle à Paris, dans les diverses branches du génie civil, des travaux publics et de l'architecture est si grand qu'il est bien difficile de donner en quelques lignes une idée suffisante de son importance. L'extension rapide des communications par voies ferrées, imprimant, comme cela a lieu, une plus grande activité au commerce, et augmentant le nombre des personnes qui voyagent dans le pays, est une des principales causes de ce progrès.

On pourrait mentionner, en ce qui concerne le génie civil, bien des travaux considérables sur tous les points du royaume. Dans le district métropolitain seulement, cinq nouveaux ponts de chemins de fer et deux de passagers ont été jetés sur la Tamise; un troisième est en cours de construction à Blackfriars. Le nouveau pont public de Westminster et d'autres encore, pour la plupart construits en fer, sont remarquables par la hardiesse du dessin et la nouveauté du système de construction. Ce qu'il y a de particulier dans quelques uns des ponts de chemins de fer dont il vient d'être

question, c'est qu'ils reposent entièrement sur des piles formées de caissons en fer, et enfoncées dans le fleuve sans le secours d'aucune espèce de travaux extérieurs. On a comblé ensuite ces caissons avec une maçonnerie en béton, et le tout constitue de gigantesques colonnes supportant le pont. On n'a pas non plus perdu de vue l'importance qu'il y a de joindre l'utile à l'agréable, et dans bien des cas les ouvrages en métaux employés pour la superstructure dénotent un goût très-élevé, et marquent un progrès décidé dans l'art de construire les ponts en fers. Trois autres travaux importants: le chemin de fer souterrain, l'endiguement de la Tamise et le système de l'égoût collecteur, peuvent également être cités comme preuves de progrès. Le chemin de fer souterrain est presque entièrement construit sous les principales artères de la cité, et lorsqu'il sera terminé il formera le cercle intérieur des communications par voies ferrées dans la métropole. La partie qui est actuellement livrée au trafic, entre l'est et l'ouest de la ville, a dépassé toutes les prévisions, tant sous le rapport de l'utilité pour le public que sous celui des bénéfices acquis à la compagnie. L'endiguement de la rive septentrionale de la Tamise, qui se trouve actuellement fort avancé, créera une belle voie de communication entre Westminster et la Cité; et l'égoût collecteur une fois complété contribuera, on l'espère, à rendre aux eaux de la Tamise leur pureté. Les docks et les havres tendent à s'accroître continuellement, et des sommes considérables sont votées annuellement par le Parlement pour les ports de refuge et les brise-lames; parmi ceux qui sont terminés ou en cours d'exécution, on peut mentionner les travaux de Portland, de Douvres et de Holyhead.

Le nombre total des phares sur les côtes du Royaume-Uni est de 212, non-compris les feux particuliers à chaque port, et 42 feux flottants.

En ce qui regarde l'architecture, il s'est manifesté un grand perfectionnement dans les constructions de toutes sortes, et les édifices publics de Londres, récemment élevés, peuvent soutenir la comparaison avec ceux de toute autre partie du monde. Les nouvelles stations de chemins de fer dans la métropole dénotent un grand talent dans l'art de l'ingénieur, tandis que les spacieux hôtels attenants à ces stations font le plus grand honneur à l'architecture moderne. Les bureaux du gouvernement à Whitehall, les églises, les bâtiments occupés par les banques, les compagnies d'assurances et les clubs, les hôtels, les salles de concert et les maisons d'habitation modèles, qui ont été construits pendant les dix dernières années, attestent également en faveur de la marche du progrès. Ces édifices ou constructions, qui surpassent de beaucoup comme dimension ceux élevés à une date antérieure, sont également remarquables en ce qu'ils prouvent une plus grande appréciation des principes de l'art, tant au point de vue de l'ensemble ou de l'aspect général que dans le système de la décoration.

Les marbres de couleur et la terra-cotta, adoptés pour les travaux d'embellissement, ont été employés avec succès dans différentes occasions. Les nouveaux bâtiments du Musée en cours d'exécution à South Kensington offrent un exemple intéressant de l'emploi de la terra-cotta ; et, une fois achevés, ils formeront un des plus beaux ornements de la capitale.

On peut citer comme étant intimement liée avec les travaux de cette classe, l'institution récente des conseils de santé et de l'administration des travaux publics établis dans les différents districts de la métropole, et dont la mission consiste à surveiller l'état général et les conditions sanitaires des quartiers qui se trouvent placés dans leur ressort respectif ; à prendre les mesures nécessaires pour diminuer les inconvénients produits par la fumée de charbon, pour l'amélioration des parcs et jardins publics, ainsi que toute autre mesure ayant pour but le bien-être du peuple.

La fabrication des serrures, dont il est question dans cette classe, donne lieu à un commerce très-important, et se fait particulièrement à Wolverhampton, et autres villes dans le Staffordshire Sud.

Les extraits suivants d'un rapport adressé en 1865 à l'Association Britannique, par M. J. C. Tiddlesley, donnent une idée complète des principales branches de la serrurerie dans le Royaume-Uni :—

Lieux de Production et Sortes de Serrures confectionnées	Nombre de Patrons	Nombre approxi- matif des Ouvriers	Moyenne des Salaires hebdoma- daires
Wolverhampton :			s. s.
Serrures en laiton pour tiroirs de comptoir et meubles	20	400	25 à 40
Serrures ordinaires pour portes de magasins, greniers, etc.	50	800	25 „ 40
Willenhall (et Short Heath, etc.) :			
Serrures communes, à mortaise fixe, à verroux, cadenas, etc.	275	3,000	18 „ 30
Walsall (et Bloxwich) :			
Serrures pour meu- bles, cadenas en fer	35	400	18 „ 30
Wednesfield :			
Serrures et clefs en fer pour meubles	50	200	15 „ 25
Brewood :			
Serrures pour maga- sins, etc.	30	150	18 „ 28
Total . . .	460	4,950	

‘ La production des serrures dans le district est estimée par semaine à, savoir : 24,000 douzaines de cadenas ; 3,000 douzaines de serrures d'armoires, de tiroirs et de coffres ; 3,000 douzaines de serrures communes, à mortaise fixe et à verroux ; 1,000 douzaines de serrures ordinaires ; 500 douzaines de serrures à combinaisons de sûreté et autres : faisant une production totale de 31,500 douzaines de serrures par semaine.

‘ Aucune des industries locales n'a peut-être

moins profité des récents progrès de la science mécanique que la fabrication des serrures, qui sont encore pour la plupart confectionnées de la même manière qu'il y a vingt ans. On doit principalement attribuer l'état anormal qui, contrairement à ce qu'on remarque pour les autres branches du commerce, existe dans la serrurerie, à ce fait que les diverses fractions de cette industrie se trouvent réparties entre les mains de petits capitalistes. Toutefois, le commerce de la serrurerie s'étant nouvellement étendu à divers districts, notamment à ceux du Lancashire et de Londres, il y a dès lors lieu d'espérer qu'il se produira un changement favorable dans le mode de cette fabrication. La position des artisans employés à la confection des serrures s'est beaucoup améliorée dans ces dernières années, mais il reste encore quelquechose à faire sous ce rapport.

En ce qui concerne le développement de l'art appliqué à la serrurerie, il y a également place pour de grands perfectionnements, tant sous le rapport du dessin que sous celui de l'ornementation, sans toutefois nuire aux qualités utiles de cet important produit.

Parmi les articles de serrurerie de fabrication supérieure, ceux sortant des ateliers de MM. Chubb et Hobbs sont trop connus pour qu'il soit nécessaire de s'y arrêter.

Quant aux matériaux de construction tirés du Royaume-Uni, outre les pierres, les ardoises, la chaux, etc., des quantités considérables de briques et de tuiles sont annuellement produites dans diverses parties du pays. Les bois de charpente sont surtout importés de l'Amérique du Nord et de la Baltique. Le commerce étranger pour les principales sortes de matériaux de construction donne, pour l'année 1865, les résultats suivants :—

Imports.

	Quantités	Valeur
		£
Marbre brut . . . Tonnes	9,994	74,085
„ scié, etc. . . Quintaux	40,572	29,043
Bois de charpente et autres (ni scié ni fendu) y compris le teck . . . Lasts ou Loads	1,685,000	5,570,000
Bois de sapin, vo- liges, etc. (sciés ou fendus) . . . „	2,136,000	6,559,000
Lattes . . . „	105,000	206,000

Exports (Produits Britanniques).

	Quantités	Valeur
		£
Briques . . . Mille	33,221	86,245
Ciment . . . Quintaux	2,257,000	285,898
Pierres :		
Ardoises (au nom- bre) . . . Mille	7,134	49,664
Ardoises au poids . . Tonnes	2,544	11,061
Sortes diverses . . Valeur		91,016
Craie et chaux . . Tonnes	14,425	8,683
Tuiles et carreaux . Mille	1,167	8,947
Tuyaux de drai- nage, etc. . . Nombre	454,600	27,066

Classe LXVI.

MATÉRIEL DE LA NAVIGATION ET DU SAUVETAGE.

La révolution qui s'est opérée dans la construction des navires de guerre pendant les dix ou quinze dernières années est si universellement connue qu'il serait superflu d'en parler ici; on peut mentionner, toutefois, le commerce considérable qu'a fait surgir dans tout le pays la fabrication des plaques destinées au blindage des nouveaux bâtiments de guerre.

Le tableau suivant indique, d'après un rapport adressé au Parlement en 1866, le nombre de navires cuirassés, à flot et en construction, appartenant à la marine royale :—

	Nombre	Tonnage	Canons
	À flot		
Bâtiments cuirassés :			
Entièrement blindés .	13	49,782	219
Partiellement „ .	17	59,485	258
Batteries flottantes :			
Entièrement blindés .	4	7,367	62
	En construction		
Bâtiments cuirassés :			
Entièrement blindés .	2	9,732	12
Partiellement „ .	2	8,223	22

Au nombre des navires à flot se trouve celui construit sur les plans à coupoles du Capitaine Coles, et deux des autres bâtiments, actuellement en chantier, seront établis d'après les mêmes principes : tous trois sont blindés entièrement.

Mettant toutefois de côté la considération que méritent les vaisseaux de guerre pour la défense et pour la protection du commerce, une nation qui emploie annuellement près de 50 millions de tonneaux de jauge effective pour sa navigation à l'intérieur et à l'étranger, doit être profondément intéressée dans la construction des navires. Les principaux chantiers sont ceux de la Tamise, de la Humber, la Tyne, la Wear, la Tees, la Severn, la Mersey et la Clyde; il y en a aussi à Dundee, Belfast et plusieurs autres ports du royaume.

Le tonnage des navires marchands appartenant au Royaume-Uni et aux îles des mers britanniques était, au 31 décembre 1865 :—

	Tonnage total
Bâtiments à voiles . . .	4,937,000
„ à vapeur . . .	824,000
Total . . .	5,761,000

On pourra se former une idée de l'importance de la construction des navires, au point de vue de l'industrie, en se référant au nombre de ces bâtiments qui sortent annuellement des chantiers du pays.

Le tableau suivant indique le nombre de navires construits et enregistrés dans le Royaume-Uni pendant les trois dernières années :—

Années	Bâtiments à Voiles		Bâtiments à Vapeur	
	Navires	Tonnage	Navires	Tonnage
1863	883	255,000	280	110,000
1864	873	272,000	376	161,000
1865	922	236,000	382	180,000

Sur le nombre total des bâtiments afférant à l'année 1865, 844, d'une jauge collective de 153,000 tonneaux, ont été construits en bois, et 460, jaugeant 262,000 tonneaux, en fer.

Le métal employé dans la construction des navires en fer sort des usines du pays, mais les matériaux servant à celle des navires en bois sont principalement importés. On importe également de grandes quantités de chanvre, de bourre de coco, etc., pour la fabrication des cordes et autres agrès, au sujet desquels on trouvera d'ailleurs des informations à la Classe 55.

Il n'existe aucun relevé récent sur le nombre de personnes occupées à la construction des navires, etc., dans le Royaume-Uni. D'après le recensement de 1861, le nombre total des individus employés à la construction des navires, bateaux, barques, mâts, et à la fabrication des voiles, etc. était—

Divisions	Hommes	Femmes	Totaux
En Angleterre et le pays de Galles . . .	43,704	75	43,779
Écosse . . .	9,148	6	9,154
Irlande . . .	2,220	9	2,229
Totaux . . .	55,072	90	55,162

Les relevés statistiques ci-après, de la moyenne des salaires payés aux ouvriers occupés à la construction des navires, ont été puisés dans les rapports adressés au 'Board of Trade' par chacune des Chambres de commerce en 1866—

Professions	Localités	Taux des gages par semaine
		s. s.
Constructeurs de vaisseaux	à Hull . . .	33
	„ Bristol . . .	30
	„ Glasgow . . .	30
	„ Dundee . . .	24 à 26
	„ Belfast . . .	33
Forgerons de vaisseaux	„ Hull . . .	27 „ 33
	„ Bristol . . .	28
	„ Glasgow . . .	20 „ 32
	„ Dundee . . .	24 „ 30
	„ Belfast . . .	26
Aides-forgerons de vaisseaux	„ Hull . . .	15 „ 18
	„ Bristol . . .	18
	„ Glasgow . . .	14 „ 18
	„ Dundee . . .	16
	„ Belfast . . .	13
Scieurs delong	„ Hull . . .	27 „ 33
	„ Bristol . . .	24
	„ Dundee . . .	24
	„ Belfast . . .	22
	„ Hull . . .	26 „ 28
Menuisiers	„ Bristol . . .	30
	„ Glasgow . . .	24 „ 29
	„ Dundee . . .	23
	„ Belfast . . .	30

Professions	Localités	Taux des gages par semaine	
		s.	s.
Charpentiers de navires	à Hull	. 33	
	„ Bristol	. 30	
	„ Dundee	. 24	26
Contremaîtres	„ Hull	. 42	63
	„ Bristol	. 42	
	„ Dundee	. 30	45
	„ Belfast	. 39	
Apprentis	„ Hull	. 5	10/6
	„ Glasgow	. 8	12
	„ Dundee	. 6	12
	„ Belfast	. 5	10
Manœuvres	„ Hull	. 18	21
	„ Bristol	. 16	
	„ Glasgow	. 12	16
	„ Dundee	. 13	15
Ouvriers chau- dronniers et ceux qui font les plaques	„ Bristol	. 36	
	„ Glasgow	. 28	30
	„ Dundee	. 27	
Ouvriers for- geant spéci- alement les cornières de fer	„ Glasgow	. 24	29
	„ Dundee	. 28	
Riveurs	„ Glasgow	. 26	
	„ Dundee	. 23	
Aides-riveurs	„ Bristol	. 18	
	„ Glasgow	. 16	
	„ Dundee	. 15	

En citant les perfectionnements apportés, ces dernières années, dans la construction des navires, en Angleterre, il serait injuste de ne pas mentionner que, outre la formation de la nouvelle flotte cuirassée, le gouvernement a transformé en navires à hélice presque tous les bâtiments à voiles de la marine royale, pourvoyant ainsi le pays d'une puissante marine à vapeur.

Les constructeurs de navires ont, en général, adopté le système 'wave line' introduit par M. Scott Russell, et, par suite de l'emploi universel du fer, les navires que l'on construit aujourd'hui sont beaucoup plus longs et leur forme beaucoup plus élégante; ce qui ajoute à leurs qualités nautiques et à leur capacité, et conséquemment augmente dans de grandes proportions les résultats commerciaux. Parmi les plus récentes inventions et perfectionnements, on peut citer les navires à hélices jumelles, le bateau-cigare, l'emploi de l'acier au lieu de feuilles de fer pour le doublage extérieur des bâtiments et la nouvelle méthode de propulsion hydraulique. Le vaisseau de S. M. Britannique 'Waterwitch,' pourvu du nouveau mode de propulsion, a fait dernièrement des expériences qui ont donné des résultats satisfaisants; le mécanisme consiste en une grande roue de turbine, nommé 'propulseur Ruthven,' qui aspire l'eau par le fond du navire et la rejette par des ouvertures latérales pratiquées à l'endroit de la ligne de flottaison.

En ce qui concerne les signaux maritimes,

une commission internationale s'est récemment réunie à ce sujet à Paris, sous les auspices de M. le Marquis de Chasseloup-Laubat, Ministre de la Marine, et sous la présidence de l'Amiral La Roncière le Noury. M. W. F. Larkins, du 'Board of Trade,' et M. Sallandrouze de Lamornaix, officier de la Marine Impériale Française, furent chargés par la commission de réviser et de corriger le livre des signaux. Le 'Code Commercial International des Signaux' a, depuis, été adopté par les bâtiments de guerre et les navires marchands de toutes nations pour l'échange de communications en mer ou avec les stations de signaux sémaphoriques établis sur les côtes.

Le code actuel diffère des autres codes employés jusqu'ici, en ce que les pavillons représentent les signes ou caractères B, C, D, etc. au lieu des numéros 1, 2, 3, etc.

L'avantage qu'offre le système des lettres, c'est qu'on obtient, au moyen de dix-huit signes distincts, pris 2 à 2, 3 à 3, ou 4 à 4, 78,642 combinaisons séparées pour faire des signaux, dont chaque groupe a une signification particulière. Le nombre maximum de signes frappés sur une drisse n'est jamais que de quatre.

Le principe général du code est que la forme même de la drisse indique la nature du signal, soit qu'elle fût composée de 2, 3 ou 4 pavillons. Les groupes de deux signes, notamment, ayant toujours une signification importante, on doit y prêter la plus grande attention.

Dans les groupes de 4 signes, si le signe B ou guidon est au-dessus, ce signal indiquera toujours un nom géographique.

Une drisse composée de 4 pavillons, et ayant pour signe supérieur un des treize pavillons carrés du code, forme le signal indiquant le nom d'un bâtiment.

Une liste, donnant le nom de chaque navire, son tonnage et sa force motrice (si c'est un vapeur), est publiée comme annexe au Code des Signaux. Le code est suffisamment riche en combinaisons pour permettre d'approprier plus de 40,000 signaux distincts à des noms de navires exclusivement.

Les gouvernements de la France et de la Grande-Bretagne (ainsi que cela a eu lieu il y a quelques années relativement aux fanaux pour les bâtiments à vapeur) ont adressé une note collective aux gouvernements des principales puissances maritimes, pour leur recommander l'adoption universelle du Code Commercial en vue d'établir un système uniforme de signaux en mer, à l'usage de toutes les nations.

Le gouvernement impérial de France a, le premier, adopté ce code, à l'exclusion de tous autres, pour l'usage des navires français, et de toutes les stations sémaphoriques. L'Espagne, le Portugal, l'Italie, la Hollande, la Belgique et la Grèce ont également manifesté l'intention de suivre l'exemple de la France.

Il y a une autre innovation apportée dans le Code Commercial, et qui doit être mentionnée.

Elle consiste en un code à l'usage des signaux de grandes distances, et que l'on emploie lorsqu'il est impossible de distinguer la couleur des pavillons. On se sert dans ce cas d'une ou de deux boules noires, avec deux des flammes ou pavillon du code; et ces signaux peuvent également être échangés avec les sémaphores actuellement établis sur les côtes de France, en appliquant simplement le code à l'usage des grandes distances dont les règles sont données dans le livre des signaux.

Le Code Commercial est imprimé et édité à Londres, No. 54 Gracechurch-street, par M. W. Mitchell, et à Paris, par MM. Galignani.

On trouve dans cette section de l'Exposition une catégorie d'objets d'une grande importance; ce sont les bateaux dits 'life-boats' et appareils du sauvetage maritime.

Dans un pays où le commerce du cabotage et de long cours est si considérable, sans compter les grandes pêcheries répandues sur tous les points de la côte, l'ensemble des mesures destinées à secourir les navires en détresse doit être l'objet d'un profond intérêt. Un simple coup-d'œil jeté sur la liste annuelle des naufrages pour le Royaume-Uni suffit pour faire comprendre la grande tâche qu'il est donné aux 'life-boats' d'accomplir. Le nombre total des navires perdus ou avariés était, en 1865, de 2,012, et celui des personnes qui ont péri de 698. De ce nombre, 275 personnes disparurent avec des bâtiments qui sombrèrent en mer, 53 furent tuées par suite de collisions de navires, 335 sur des bâtiments échoués à la côte, et enfin 35 sont mortes de causes diverses. Considérant que tant de monde a péri à une époque où notre système de sauvetage était dans toute son activité, il est clair qu'il reste encore beaucoup à faire pour arracher nos semblables à une mort prématurée.

L'entretien des 'life-boats' sur les côtes du Royaume-Uni est à la charge de l'Institution

Royale Nationale des Life-boats,' qui est supportée par des contributions volontaires. De grands perfectionnements ont été apportés, pendant ces dix dernières années, dans la construction des 'life-boats,' et la Société de Sauvetage a installé plusieurs de ces bateaux sur des points dangereux de la côte, qui, jusqu'alors, étaient tout-à-fait dépourvus de moyens aussi efficaces, pour secourir les navires en détresse. Le nombre total des 'life-boats' appartenant à l'Institution (novembre 1866), et répartis sur divers points de la côte du Royaume-Uni, s'élevait à 172, dont 125 en Angleterre et dans le pays de Galles, 19 en Écosse, et 28 en Irlande. Il y avait aussi environ vingt 'life-boats' disséminés dans différentes localités qui ont pourvu aux frais de ces bateaux. Outre les life-boats, le 'Board of Trade' entretient 249 stations de porte-amarres et de sauvetage qui sont servies par les gardes-côtes. Des spécimens du 'life-boat' perfectionné, de porte-amarres et autres appareils du sauvetage maritime sont exposés parmi les objets compris dans cette classe.

Le nombre de personnes sauvées, en 1865, par des 'life-boats' appartenant à l'Institution a été de 532; par les embarcations, de 182, et de 180 par les porte-amarres.

La dépense pour l'installation d'une station de 'life-boats' est de 620*l*. Cette dépense se répartit de la manière suivante:—

	£
'Life-boat' et son grément, y compris les ceintures de sauvetage pour l'équipage, et le charriot servant au transport du bateau	420
Hangar pour 'life-boat' (prix-moyen)	200
Total	£620

La moyenne de la dépense annuelle pour l'entretien d'une station de 'life-boats' est de 50*l*.

GROUPE VII.

(CLASSES LXVII. à LXXIII.)

ALIMENTS (FRAIS OU CONSERVÉS) À DIVERS DEGRÉS DE PRÉPARATION.

Classe LXVII.

CÉRÉALES ET AUTRES PRODUITS FARINEUX COMESTIBLES, AVEC LEURS DÉRIVÉS.

Les articles compris dans cette classe présentent un grand intérêt, parce qu'ils font connaître les ressources qu'offre le pays pour l'approvisionnement de denrées qui constituent une des principales bases de son alimentation, et bien que la production indigène soit insuffisante pour les besoins de la population, une étendue de terrain considérable est cependant consacrée à la culture des céréales. Jusqu'en 1866 il ne se fit aucun relevé complet de la superficie totale des terres cultivées dans la Grande-Bretagne. Le tableau suivant indique, pour cette même année, quelle a été, dans chacune des divisions du Royaume-Uni, la superficie affectée à la culture des produits farineux :—

	Superficies en Culture			
	En Angleterre	Pays de Galles	Ecosse	
Blé . acres	3,161,431	113,862	110,101	
Orge . "	1,877,387	146,323	213,619	
Avoine . "	1,503,990	251,893	1,004,040	
Seigle . "	50,570	2,452	7,055	
Fèves . "	492,586	3,534	28,537	
Pois . "	314,206	3,016	3,188	
Total .	7,400,170	521,074	1,366,540	
	Irlande	L'île de Man	Jersey	Guernesey etc.
Blé . acres	300,474	8,075	2,702	990
Orge . "	152,777	7,736	111	532
Avoine . "	1,697,648	11,010	288	428
Seigle . "	7,753	9	13	27
Fèves . "	12,175	320	15	43
Pois . "	2,606	116	13	21
Total .	2,173,433	27,266	3,142	2,041

On n'a point fait encore, pour les différentes sortes de grains, le relevé exact des quantités produites dans le pays; mais, en ce qui concerne le froment, on estime à 27 boisseaux environ par acre son rendement moyen pour

l'Angleterre, le pays de Galles et l'Ecosse, et à 25 boisseaux pour l'Irlande; ce qui donnerait approximativement une production de 12,364,000 quarts (35,855,600 hectolitres) pour le Royaume-Uni, non-compris l'île de Man et les îles de La Manche.

Le tableau ci-dessous fait connaître quelle est, par rapport à la superficie totale des terres cultivées et en pâturages, la proportion affectée à la culture des céréales :—

Divisions	Superficie Totale du Terrain en Culture: Vert, en Jachère et en Friche	Proportion de Terrain affectée à la Culture des Céréales
	Acres	Pour cent
Angleterre . .	22,262,000	33·3
Pays de Galles . .	2,284,000	22·8
Ecosse . .	4,158,000	32·9
Île de Man . .	83,000	32·9
Îles de La Manche :		
Jersey . .	20,000	15·4
Guernesey . .	12,000	17·0
Irlande . .	*15,549,000	14·0

* Cette superficie comprend également les pâturages, qui ne sont pas inclus dans les autres relevés; il en résulte naturellement, dans le chiffre de la proportion du terrain consacré aux céréales, une diminution qui serait bien moindre si on avait pris, pour l'Irlande, les mêmes bases que pour les autres divisions du royaume.

Les principaux districts producteurs de céréales, en Angleterre, sont ceux situés à l'est et au sud-est du pays; les contrées du milieu et de l'ouest fournissent également des grains, mais les prairies occupent une partie considérable de la superficie de ces comtés. Il en est de même pour l'Ecosse, où les céréales sont particulièrement cultivées dans les comtés de l'est, et les fourrages au sud et au sud-ouest. En Irlande, ce sont les districts du nord et du sud qui produisent surtout les grains.

Les extraits ci-après de l'ouvrage de M. Caird sur l'agriculture anglaise donnent une idée complète des changements survenus pendant le présent siècle dans les exploitations rurales. Les statistiques relevées par cet auteur en 1850-51, comparées avec les informations analogues recueillies en 1770 par M. A. Young

dans 26 comtés de l'Angleterre, présentent les différences que voici :—

		1770	1850
		s. d.	s. d.
Loyer des terres de labour	par acre	13 4	26 10
Rendement du blé	„ „	Boisseaux 23 0	Boisseaux 26 $\frac{1}{2}$
Moyenne des salaires des cultivateurs	par semaine	s. d. 7 3	s. d. 9 7
Loyer des habitations rurales	„ „	0 8	1 5
Prix du pain	par livre	0 1 $\frac{1}{2}$	0 1 $\frac{1}{2}$
„ de la viande	„ „	0 3 $\frac{1}{2}$	0 5
„ du beurre.	„ „	0 6	1 0

‘ Il ressort donc de ces chiffres que, dans une période de 80 ans, la moyenne du loyer des terres labourables a augmenté de cent pour cent; le rendement moyen du froment de 14 pour cent par acre; le salaire du cultivateur de 34, et le loyer de son habitation de 100 pour cent; au contraire, le prix du pain, le principal aliment du paysan anglais, est, à peu près, ce qu'il était en 1770. Le prix du beurre est de cent pour cent plus élevé; la viande de 70 pour cent; et la laine a augmenté de plus de cent pour cent.’ Depuis 1850 la valeur du beurre, de la viande, et de la laine s'est encore considérablement accrue.

‘ L'augmentation de quatorze pour cent par acre dans le rendement moyen du blé ne représente pas l'accroissement réel de la production. L'étendue de terrain cultivé en 1770 était, sans aucun doute, de beaucoup inférieure à ce qu'elle est aujourd'hui; et la moyenne du rendement à cette époque était basée sur des récoltes poussées dans des terres de qualité bien supérieure, qui ont naturellement été mises en culture les premières. Le progrès dans le rendement des céréales doit, dès lors, être attribué à un meilleur système de culture; et ce résultat est d'autant plus remarquable qu'il a été obtenu malgré l'infériorité relative du sol. L'augmentation de la superficie couverte par les céréales et celle de leur rendement moyen n'est toutefois pas proportionnée à l'augmentation des loyers de fermage pendant la même période; et le prix du blé est aujourd'hui à peu de chose près ce qu'il était alors; on doit donc, pour expliquer cette anomalie, recourir aux relevés statistiques de l'approvisionnement.’

‘ Tandis que le prix du blé n'a pas varié, ceux de la viande, du beurre et de la laine ont presque doublé. La production de ces derniers articles a également augmenté dans de grandes proportions par la raison que le même terrain nourrit un plus grand nombre de vaches, que le gros bétail est engraisé beaucoup plus vite et atteint de plus fortes dimensions, ainsi que les moutons, dont la chair est de meilleure qualité, et qui fournissent davantage de laine. Le revenu des fermes (laiteries) et autres exploitations rurales qui se livrent à l'élevage des bestiaux et spécialement à celui des moutons a été proportionné aux dépenses de loyer; il en

a été tout autrement pour les fermiers qui se sont adonnés à la culture des céréales. Autrefois, les terrains argileux étaient considérés comme les plus propres à la récolte des grains; ils acquittaient un plus fort loyer, payaient une plus lourde dîme, et nécessitaient l'emploi d'un plus grand nombre d'ouvriers; mais les perfectionnements modernes ont entièrement modifié cette manière de voir. L'extension donnée à la culture des plantes fourragères et légumineuses et les bestiaux nourris dans les prairies ont tellement augmenté le principe fertilisant des terres légères, qu'elles fournissent aujourd'hui des céréales à moins de frais que les terres argileuses, sans compter l'avantage important du profit retiré du bétail que l'on y fait paître.’

La superficie totale du terrain consacré à la culture des plantes fourragères et légumineuses dans le Royaume-Uni était, en 1866, de 5,055,220 acres, dont 2,750,000 en Angleterre; 139,265 dans le pays de Galles; 663,257 en Ecosse; 1,482,091 en Irlande; 12,208 dans l'île de Man; 5,253 à Jersey, et 2,938 à Guernesey. (Ces relevés sont les premiers qui ont été faits.)

Les prix moyens du froment, de l'orge, et de l'avoine britanniques ont été, par quarter impérial, pendant les cinq années 1860-65;—

	Froment	Orge	Avoine
	s. d.	s. d.	s. d.
1861	55 4	36 1	23 9
1862	55 5	35 1	22 7
1863	44 9	33 11	21 2
1864	40 2	29 11	20 1
1865	41 10	29 9	21 10

On a déjà dit que la production indigène des céréales dans le Royaume-Uni n'était pas proportionnée aux besoins de la population, et que, par conséquent, il s'en importait des quantités considérables. Pendant les douze années comprises entre 1854 et 1865, la valeur moyenne annuelle de l'importation des grains dans le royaume ne s'élève pas à moins de 24,000,000*l.* La table suivante fait connaître les quantités des principales sortes de farineux importés en 1865, ainsi que leurs lieux de provenance.

Lieux de provenance	Quantités entrées pour la consommation
Froment :	Quintaux
Russie	8,160,000
Danemark	647,000
Prusse	5,426,000
France	2,266,000
Amérique Britannique du Nord	307,000
Etats-Unis	1,183,000
Autres pays	2,946,000
Total	20,935,000
Farine de froment :	
France	3,058,000
Amérique Britannique du Nord	181,000
Etats-Unis	262,000
Autres pays	382,000
Total	3,883,000

Lieux de provenance	Quantités entrées pour la consommation
Orge:	Quintaux
Danemark	1,550,000
Prusse	770,000
Villes Hanséatiques	400,000
France	1,583,000
Turquie (proprement dite)	2,087,000
Autres pays	1,428,000
Total	7,818,000

Avoines:

Russie	1,963,000
Suède	3,090,000
Danemark	1,071,000
Prusse	65,000
Hollande	726,000
Autres pays	796,000
Total	7,711,000

Maïs:

Russie	1,194,000
Valachie et Moldavie	545,000
Turquie	3,178,000
États-Unis	1,771,000
Autres pays	399,000
Total	7,087,000

Les pays mentionnés dans la table ci-dessus, en y ajoutant l'Égypte, qui pendant bien longtemps a fourni en abondance du blé, de l'orge et du maïs, ont été les principales sources d'approvisionnement pendant les quinze dernières années. Par suite de la guerre civile qui a régné aux États-Unis, les quantités de grains reçues de cette contrée, en 1865, ont été bien au-dessous des importations ordinaires. Les céréales et les grains sont soumis à un droit d'entrée de 3*d.*, et la farine à 4½*d.* par quintal.

Il s'importe également sur une grande échelle du riz, du sagou, du tapioca, de la semoule, du macaroni, et du vermicelle, articles qui ne sont point produits dans le pays. Voici quelle a été l'importation en 1865:—

Articles	Quantités	Valeur
		£
Riz, non-mondé	quarters 6,478	15,310
Riz, mondé	quintaux 1,938,816	1,330,941
Sagou	148,582	121,285
Tapioca	22,363	37,025
Semoule	2,453	2,773
Macaroni et vermicelle	7,486	18,012
Total		1,525,346

Le nombre total des personnes employées aux travaux agricoles (culture des terres de labour et pâturages) était, en 1861, pour chacune des grandes divisions du Royaume-Uni—

Divisions	Hommes	Femmes	Totaux
Angleterre et pays de Galles	1,457,075	376,577	1,833,652
Écosse	215,716	120,773	336,489
Irlande	850,121	81,714	931,835
Totaux	2,522,912	579,064	3,101,976

La condition des ouvriers ruraux dans le pays entier a depuis longtemps fixé l'attention. Comme emploi, l'agriculture rémunère bien moins ses ouvriers que toute autre industrie. Le taux des gages varie considérablement dans toutes les parties du royaume; mais, même dans les districts où les salaires sont le plus élevés, la position des cultivateurs à gages n'est nullement satisfaisante.

Le tableau suivant indique, d'après un rapport présenté au Parlement en 1861, la moyenne des salaires payés aux ouvriers agriculteurs dans les trois divisions du pays:—

Taux des plus élevés et les plus bas de la moyenne des gages par semaine, sans logement ni nourriture.

Divisions et Districts	Hommes		Femmes		Enfants au-dessous de 6 ans	
Angleterre: District du sud-est	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	de 10 0	à 13 6	3 6	à 6 0	2 6	à 6 0
District du sud central	10 0	13 0	3 6	5 0	2 0	8 0
District de l'est	10 0	13 0	3 6	5 0	1 6	8 0
District du sud-ouest	8 0	10 0	3 0	5 0	1 6	7 0
District de l'ouest central	9 0	12 0	3 0	5 0	2 0	6 0
District du nord central	12 0	15 0	4 0	6 0	1 6	8 0
District du nord-ouest	10 0	15 0	3 6	11 0	2 0	6 0
District du nord	12 0	16 6	4 2	8 0	3 0	7 6
District gallois	10 0	13 0	2 6	6 0	1 6	9 0
Pays de Galles	8 0	15 0	3 0	6 0	3 0	9 0
Écosse (en-viron)	10 0	16 0	4 0	8 0	2 0	7 0
Irlande (en-viron)	5 7	10 2	2 9	5 0	1 7	4 0

Les gains hebdomadaires, pour travaux à la tâche, étaient de 2*s.* à 5*s.* en plus des salaires ci-dessus.

La science agricole a fait, ces dernières années, de grands progrès dans le Royaume-Uni, particulièrement en Angleterre et en Écosse. Les méthodes perfectionnées suivies dans la grande culture, un meilleur système d'assolements, l'immense développement du drainage, l'usage des engrais artificiels et l'emploi de procédés mécaniques pour divers travaux de la ferme, ont contribué à placer

l'agriculture du pays dans une situation bien meilleure que celle qu'elle occupait autrefois; l'élevage toujours croissant du bétail à également produit des résultats très avantageux; et les récentes expériences de l'application de la vapeur aux travaux de labour sur les terrains argileux ont, paraît-il, complètement réussi. On trouvera à la Classe 48 une notice sur les machines agricoles dont l'usage est si généralement répandu dans le pays. Les expositions annuelles de la Société Royale d'Agriculture, et les divers concours internationaux et autres qui ont eu lieu depuis 1851, contribueront à répandre davantage l'emploi des procédés mécaniques les plus perfectionnées; et, d'un autre côté, grâce aux recherches de chimistes éminents et d'hommes de science, on est parvenu à mieux connaître la nature des terrains; ces savants ont ainsi largement participé au développement donné à l'agriculture du pays.

Classe LXVIII.

PRODUITS DE LA BOULANGERIE ET DE LA PÂTISSERIE.

La fabrication du pain à la mécanique s'est rapidement développé pendant ces quelques dernières années.

Parmi les machines à faire le pain exposées à Londres, en 1862, celles destinées au pétrissage étaient bien représentées. Il fut établi que, par l'emploi de ces machines, on réalisait une économie de trois pour cent sur la farine seulement. Un four portatif pour la cuisson du biscuit a été également très-remarqué par le jury de la classe vii., qui exprima l'espoir que, dans l'intérêt de la santé et de la propreté, aussi bien que dans celui du bien-être des ouvriers employés dans cette partie, l'usage général de machines pour la fabrication du pain fût adopté par le commerce de la boulangerie.

La consommation annuelle, dans le Royaume-Uni, du froment et de la farine de froment comme substances alimentaires, est estimée à 20 millions de quarts de quintal (quarters) environ, soit, à peu près, 5½ boisseaux par tête.

Le nombre des boulangers et des pâtisseries, dans chaque division du Royaume-Uni, était en 1861:—

	Boulangers	Pâtisseries
Angleterre et Pays de Galles.	54,140	14,526
Ecosse	10,894	1,924
Irlande	9,293	1,547
Total	74,327	17,997

Il n'existe aucun rapport officiel sur le prix du pain. Le prix moyen du froment, en

Angleterre et dans le pays de Galles, a été, pendant les cinq années 1861-65:—

	Par quart de quintal	
	s.	d.
1861	55	4
1862	55	5
1863	44	9
1864	40	2
1865	41	10

Classe LXIX.

CORPS GRAS ALIMENTAIRES, LAITAGES ET ŒUFS.

Le Royaume-Uni ne produit point d'huiles comestibles, et, en ce qui concerne les autres articles compris dans cette catégorie, la production du pays n'est pas suffisante pour satisfaire aux besoins de la population. De grandes quantités de beurre, de fromage et d'œufs sont annuellement importées dans le royaume. Les relevés statistiques suivants sont relatifs au commerce étranger pour les articles mentionnés dans cette classe:—

Quantités et Valeur des Articles importés pour la Consommation.

Années	Huiles d'Olive	Beurre	Fromage	Œufs
Quantités				
	Tonnes	Quintaux	Quintaux	Centaines
1861	15,981	987,000	698,000	1,694,000
1862	20,077	1,024,000	695,000	1,936,000
1863	18,949	957,000	747,000	2,224,000
1864	15,726	1,038,000	826,000	2,794,000
1865	30,716	1,068,000	842,000	3,033,000
Valeur				
	£	£	£	£
1861	908,600	4,874,000	1,618,000	550,000
1862	1,152,800	4,860,000	1,530,000	594,000
1863	1,085,800	4,402,000	1,863,000	673,000
1864	902,200	5,569,000	2,151,000	835,000
1865	1,616,900	5,871,000	2,432,000	928,000

L'huile d'olive est principalement importée d'Italie et d'Espagne; le beurre, de Hollande, de Belgique, de France, de Hambourg et du Danemark; le fromage, de Hollande et des États-Unis; et les œufs, de France.

La valeur du beurre et du fromage, de fabrication britannique, exportés pendant les cinq années 1861-65, a été de—

	Beurre	Fromage
	£	£
1861	466,000	130,000
1862	374,000	127,000
1863	472,000	157,000
1864	327,000	147,000
1865	333,000	111,000

Classe LXX.

VIANDES ET POISSONS.

Bien que la consommation de la viande soit très-grande dans le Royaume-Uni, il n'existe cependant aucun moyen de connaître la quantité annuellement consommée. Le prix élevé de cette denrée dans ces dernières années a fait rechercher diverses combinaisons tendant à introduire dans le pays, des viandes conservées provenant de l'Amérique du Sud; mais, jusqu'à ce jour, on n'a pu aboutir à aucun résultat pratique.

La mer, qui entoure les côtes des Îles Britanniques, fournit du poisson en abondance. Les principales sortes sont la morue, le turbot, la sole, le maquereau, le merlan, le hareng, le pilchard, la crevette, les huîtres et le homard. D'après le rapport d'une commission nommée récemment à l'effet de constater l'état des pêcheries britanniques, l'approvisionnement du poisson sur les côtes de la Grande-Bretagne augmenterait tous les ans.

Le déclin dans le rendement de la pêche des huîtres pendant les trois dernières années est attribué à une succession de générations défectueuses, et dont il n'a pas encore été possible de définir la cause.

Les pêcheries de saumons, en Écosse et en Irlande, ont aussi une grande importance, mais il n'existe point de relevés sur leur production annuelle; ce poisson donne lieu à un commerce d'exportation considérable.

Les principales branches du commerce de la pêche britannique sont celles de la pêche du hareng et du pilchard ou célan. Outre le nombre immense de ces poissons servant à l'alimentation du pays, il s'en exporte annuellement de grandes quantités.

La consommation du poisson a considérablement augmenté depuis l'extension des lignes de chemins de fer, et la plupart des grandes villes du pays sont journellement approvisionnées de poisson frais. Il n'a point été publié de statistiques des pêcheries anglaises, quoique cependant la pêche des harengs à Yarmouth et sur d'autres points de la côte, de même que celle des pilchards sur les côtes du Devon et de Cornouailles, occupent un grand nombre de bateaux et de pêcheurs. Dans d'autres saisons, ces bateaux sont encore employés pour la pêche du maquereau, du turbot, de la sole, de la morue, etc. etc. On estime à huit ou neuf cents le chiffre des petits bâtiments qui sont chargés d'approvisionner le marché de Londres; en admettant pour chacun d'eux un chargement annuel de 90 tonneaux, on aurait ainsi un total de 80,000 tonneaux de poisson, indépendamment de la masse de harengs, de melettes, de coquillages et autres espèces qui sont fournis par des modes de pêche différents.

Le tableau suivant indique quelle a été, en 1864, le tonnage des bateaux, et le nombre d'hommes et de jeunes garçons employés dans

les pêcheries de l'Écosse, de l'Île de Man et de l'Irlande:—

	Pêcheries		
	Écosse	Île de Man	Irlande
Nombre de bateaux . . .	12,703	628	9,300
Tonnage . . .	92,887	5,635	—
Nombre d'hommes et de garçons . . .	40,934	2,550	40,946

Le produit de ces pêcheries a été, pour la même année:—

	Pêcheries	
	Écosse	Île de Man
Mornes et lingues :		
Prises ou achetées { quintaux	161,000	19,600
{ barriques	7,900	—
Salées . . . { quintaux	107,600	138
{ barriques	7,900	—
Harengs :		
Pêchés . . . barriques	691,000	44,000
Salés . . . „	609,000	34,000

Il n'existe aucun rapport sur le produit des pêcheries de l'Irlande, qui ont faibli dans ces dernières années. La majeure partie des petits bateaux de pêche de cette contrée appartient à des fermiers qui habitent le long de la côte, et qui n'emploient ces embarcations qu'occasionnellement. Le poisson qu'ils prennent n'est pas envoyé au marché, il se consomme dans le voisinage immédiat du lieu où il se pêche.

On ne possède aucune publication sur les prix moyens de la viande dans les différentes parties du pays. Au 'marché métropolitain du bétail sur pied' cette moyenne a été, pendant les trois années 1863-65, savoir:—

Par stone de 8 livres (issues déduites):

	1863		1864		1865	
	s.	d.	s.	d.	s.	d.
Gros bétail :						
Inférieur . . .	3	7½	3	9	3	10
2 ^e classe . . .	4	2	4	4½	4	4½
3 ^e classe (morceaux de choix) . . .	4	8	4	9½	4	9½
4 ^e classe (écossais) . . .	4	11½	5	1	5	2
Moutons :						
Inférieur . . .	4	0	4	2½	4	8
2 ^e classe . . .	4	7½	4	9½	5	4
3 ^e classe (laine grosse et longue) . . .	5	1	5	3	5	11
4 ^e classe (plateau du sud, dits 'South Downs') . . .	5	5½	5	8	6	4½

Bien que les chiffres ci-dessus ne fournissent pas d'indications quant aux prix de détail de la viande payés par la généralité des consommateurs, ils représentent assez exactement les prix en gros de cet important article de l'alimentation. En ce qui concerne la valeur du poisson, les commissaires des pêcheries établissent deux relevés montrant les variations du prix dans un port de mer et une ville de l'intérieur pour les années, 1856 et 1865; voici ces relevés:—

À Newcastle-sur-Tyne		1856				1865			
		s. d.	d.	s. d.	d.	s. d.	d.	s. d.	d.
Turbot	. par stone	2	0	2	6	4	6	6	6
Soles	. " paire	0	9	1	3	1	9	2	0
Mornes	. " pièce	0	9	1	3	2	6	3	0
Petites morues	. " "	0	3	0	9	0	6	1	3
Égrefins	. " "	0	3	0	6	0	6	0	9
Rales	. " "	0	6	0	9	2	6	3	0
Merlans	. par stone	0	9	1	0	1	3	1	6
Homards	. " "	15	0	20	0	18	0	25	0

A Manchester		1856				1865			
		s. d.	d.	s. d.	d.	s. d.	d.	s. d.	d.
Turbot	. par livre	1	0	1	6	0	8	1	0
Soles	. " "	0	3	0	4	0	6	0	8
Mornes	. " "	0	2	0	4	0	3	0	4
Éperlans (sparlings)	. " "	1	6	—	—	1	0	1	6
Égrefins	. " "	0	—	0	4	0	3	0	4
Carrelets	. " "	0	—	—	—	0	1	0	2
Barbues	. " "	0	—	0	6	0	4	0	5
Rayons	. " "	0	—	—	—	0	3	—	—
Plies	. " "	0	4	0	6	0	6	—	—

Les chiffres ci-dessus sont ceux des prix de détail.

Le prix des harengs salés à Leith en 1865, a varié de 28s. à 34s. par baril; et à Greenock, de 26s. à 40s. par baril.

Il n'y a point de relevés officiels des prix du poisson sur le marché de Londres.

Les quantités et la valeur du poisson étranger importé dans le Royaume-Uni pendant l'année 1865 ont été :—

	Quantités	Valeur
Poisson :	Quintaux	£
Frais	118,502	130,570
Mariné ou salé	366,958	384,142
	485,460	514,712

Le poisson frais est principalement importé de Hollande et de Norwège; le poisson salé, de l'Amérique Britannique du Nord, de France, de Hollande, de Norwège et d'Islande.

Les exportations du poisson britannique ont été, pendant la même année :—

	Quantités	Valeur
		£
Harengs . . . barils	352,250	500,233
Mornes et lingues quintaux	36,433	40,361
Saumons . . . "	4,311	23,388
Pilchards . . . barriques	11,783	38,342
Huitres . . . boisseaux	97,030	63,130
Autres sortes . . . "	—	23,784
	—	689,238

Les harengs sont surtout expédiés en Allemagne, en Italie et en Autriche; le saumon et les huitres, en France et en Belgique; et le pilchard, en Italie et en Autriche.

Classe LXXI.

LÉGUMES ET FRUITS.

La culture des légumes et des fruits est arrivée à un haut degré de perfection dans le Royaume-Uni, et il s'en fait une grande consommation dans toutes les classes de la société. Il n'existe point de statistique sur la production annuelle des jardins. L'étendue du terrain (jardins non-compris) consacré à la culture de la pomme de terre, dans le Royaume-Uni, était, en 1866, de 1,556,000 acres.

Outre l'approvisionnement intérieur il s'importe annuellement des quantités considérables de fruits et de légumes. En 1865, les principales importations consistaient en—

Pommes (vertes) . . . boisseaux	516,000
Raisin	58,000
Oranges et citrons	1,567,000
Poires (vertes)	41,000
Autres fruits verts	226,000
Oignons	529,000
Pommes de terre . . . quintaux	807,000

Classe LXXII.

CONDIMENTS ET STIMULANTS; SUCRES ET PRODUITS DE LA CONFISERIE.

Les principaux articles compris dans cette classe, produits dans le Royaume-Uni, sont: le sel de cuisine, le vinaigre, la moutarde, les sauces, les fruits confits et les marmelades. Le sel de cuisine provient particulièrement des salines situées dans les comtés de Cheshire et de Worcester, qui en produisent abondamment; il se raffine à Londres un sel de premier choix avec des sels de qualités inférieures tirés des endroits cités plus haut. La moutarde et les sauces anglaises, outre l'approvisionnement du pays, jouissent d'une grande renommée dans la plupart des villes du Continent, et il s'en absorbe aussi considérablement dans les colonies. La consommation de quelques articles de cette classe qui ne sont pas produits dans le royaume est très-grande. Le tableau suivant indique les principaux articles de provenance étrangère, retenus pour la consommation intérieure pendant l'année 1865 :—

Poivre livres	4,713,000
Cacao	3,826,000
Café	30,511,000
Thé	97,834,000
Sucre, brut . . . quintaux	9,876,000
„ raffiné	724,000

C'est des Indes Orientales néerlandaises, via Singapore, qu'arrive surtout le poivre; le cacao vient des Antilles Britanniques et de l'Amérique Centrale; le café, de Ceylan, de l'Inde et du Brésil; le thé, de Chine; le sucre brut, des

Antilles Anglaises, de Cuba et du Brésil; le raffiné, de Hollande, de France et de Belgique. Il s'importe également de la cannelle, des clous de girofles, du piment, etc., mais il ne s'en consomme pas de très-grandes quantités.

La consommation du thé et du sucre brut a considérablement augmenté pendant ces dix dernières années. En 1856, il n'est entré pour les besoins du pays que 63,000,000 de livres de thé et 6,813,000 quintaux de sucre brut. En comparant ces quantités avec celles importées en 1865, on trouve, en faveur de cette dernière année, une augmentation de 55 pour cent applicable au thé, et de 44 au sucre brut. La réduction récente à 6*d.* par livre du droit sur le thé, a beaucoup contribué à en augmenter la consommation, et a été un grand bienfait pour les plus pauvres classes de la société.

La moyenne annuelle de la consommation du thé a été, en 1865, de 3½ livres, environ, par individu; celle du sucre, de 39 livres.

La consommation du cacao reste, pour ainsi dire, stationnaire, et celle du café a légèrement diminué.

La valeur du sel, des conserves et sauces, du vinaigre et des produits de la confiserie, exportés du Royaume-Uni, en 1865, s'est élevée, savoir:—

	Quantités	Valeur
		£
Sel (blanc et en roche) . . . tonnes	579,050	274,631
Conserves et sauces . . . valeur	—	328,381
Vinaigre . . . gallons	345,123	33,149
Confiserie (produits de la) . . . livres	2,041,348	85,465

Classe LXXIII.

BOISSONS FERMENTÉES.

Il n'existe aucun relevé sur la production des vins britanniques, qui sont, en grande partie, faits avec des fruits étrangers tels que oranges, raisins secs, gingembre, etc., et avec des fruits du pays, tels que groseilles à grappes, groseilles à maquereau et framboises. Il se fait beaucoup de cidre dans le Devonshire, l'Herefordshire, et autres comtés du sud-ouest de l'Angleterre, où il remplace, dans de grandes proportions, la bière comme breuvage pour la classe ouvrière. Les meilleures qualités de cidre et de poiré sont parfois consommées par les classes supérieures. La bière forme la boisson ordinaire des différentes classes de la population, et se produit en grande quantité, non-seulement pour la consommation intérieure, mais aussi pour l'exportation. Les spiritueux sont également produits sur une grande échelle. Les whiskys d'Écosse et d'Ir-

lande sont les plus célèbres des spiritueux britanniques, bien qu'on en consomme peut-être moins que du genièvre, de l'eau-de-vie et du rhum (ce dernier n'est pas distillé dans le pays). La quantité de malt employée par les distilleries de spiritueux dans le Royaume-Uni a été, pendant les trois années 1863-65, savoir:—

	Boisseaux
1862-3 . . .	4,133,000
1863-4 . . .	4,986,000
1864-5 . . .	4,408,000

Le nombre de personnes patentées pour faire de la bière était, en 1865, dans chacune des divisions du Royaume-Uni, savoir:—

En Angleterre et le Pays de Galles . . .	34,218
Écosse . . .	220
Irlande . . .	90
Total . . .	34,528

Le nombre des distilleries de spiritueux était, dans la même année—

En Angleterre et le Pays de Galles . . .	8
Écosse . . .	116
Irlande . . .	25
Total . . .	149

Le nombre des distillateurs devient chaque année plus petit, à cause de la concentration du commerce entre les mains de ceux qui font des affaires considérables et qui profitent de tous les perfectionnements modernes; ils sont ainsi à même de faire une avantageuse concurrence à ceux qui ne font le commerce qu'en petit.

Le tableau suivant indique les quantités de bières et de spiritueux britanniques, ainsi que les vins et spiritueux étrangers, restés pour la consommation dans le Royaume-Uni pendant l'année 1865:—

	Gallons
Bière (estimation) . . .	684,000,000
Spiritueux britanniques . . .	21,005,000
Vins étrangers . . .	11,994,000
Spiritueux étrangers . . .	6,732,000

En ce qui concerne la consommation des liquides ci-dessus, pendant les dix dernières années, il y a eu augmentation pour la bière, les spiritueux étrangers et surtout pour le vin, et diminution pour les spiritueux britanniques.

L'augmentation dans la consommation des vins est due, en grande partie, à la réduction des droits d'entrée sur cet article; réduction qui a été consentie à l'occasion du traité de commerce conclu avec la France, en 1860.

L'importation des vins pour la consommation des principaux pays de production a été, en 1859 et en 1865, savoir:—

Pays de Provenance		1859	1865
		Gallons	Gallons
France	Rouge . .	423,000	1,782,000
	Blanc . .	272,000	829,000
Portugal	Rouge . .	1,971,000	2,851,000
	Blanc . .	49,000	38,000
Espagne	Rouge . .	47,000	506,000
	Blanc . .	2,829,000	4,685,000

Le rhum et l'eau-de-vie tiennent le premier rang dans l'importation des spiritueux; le tableau ci-après indique leurs principales sources d'approvisionnement:—

Importations pour la Consommation, 1865.

		Gallons
Rhum	Des Antilles Anglaises	1,499,000
	De la Guyane Anglaise	1,870,000

		Gallons
Eaux-de-vie	De France . .	2,581,000
	Autres lieux . .	85,000

Les quantités de bière et ale, et de spiritueux britanniques, exportés du Royaume-Uni pendant les cinq années 1861-65, ont été:—

	Bière et Ale	Spiritueux
	Barriques	Gallons
1861 . .	378,000	4,085,900
1862 . .	465,000	3,752,000
1863 . .	491,000	4,076,000
1864 . .	499,000	4,194,000
1865 . .	562,000	1,987,000

La valeur totale de ces quantités, pour 1865, s'est élevée à 2,305,000l.

GROUPE VIII.

(CLASSES LXXIV. à LXXXII.)

PRODUITS VIVANTS ET SPÉCIMENS D'ÉTABLISSEMENTS DE L'AGRICULTURE.

Classe LXXIV.

SPÉCIMENS D'EXPLOITATIONS RURALES ET D'USINES AGRICOLES.

L'ÉTAT de l'agriculture dans tout pays possédant une nombreuse population doit toujours être un sujet d'importance capitale. Depuis quelques années, la culture du sol a été l'objet de plus de soin qu'elle ne l'était auparavant, et, grâce au concours de plusieurs hommes spéciaux, les travaux de la ferme sont, dans une grande mesure, exécutés, en Angleterre, suivant des règles scientifiques. L'application de la vapeur à différents travaux agricoles a aussi opéré un progrès considérable dans les systèmes de culture employés dans le pays. Ce progrès s'est encore accru par la qualité supérieure des outils et machines manufacturés en Angleterre pour les besoins de l'agriculture; les bâtiments ruraux que l'on élève aujourd'hui offrent de grandes améliorations, de même que les outils et appareils qui y sont employés.

La manufacture des machines et instruments aratoires forme une branche très-importante du commerce du pays; il n'y a toutefois aucune statistique officielle du nombre d'ouvriers actuellement employés à cette manufacture; ces machines et instruments sont surtout fabriqués à Lincoln, Bedford, dans différentes parties du comté de Suffolk, à Peterborough, Banbury et Manchester. Outre un commerce considérable à l'intérieur, les fabricants d'instruments aratoires trouvent à l'étranger un débouché considérable pour leurs produits; il est certain que les industriels de cette catégorie ont beaucoup gagné à exposer leurs marchandises aux derniers concours internationaux.

La valeur des machines et instruments agricoles exportés du Royaume-Uni, pendant l'année 1865, s'élève à—

	£
Instruments d'agriculture de toutes sortes	210,300
Instruments d'agriculture (entièrement en fer)	13,177
Machines agricoles (à l'exception des machines à vapeur)	282,019

Les machines à vapeur employées à des usages agricoles ne sont pas spécifiées séparément dans les relevés commerciaux, mais cette branche de l'industrie a une valeur considérable.

L'étendue du terrain consacré à la culture des principales récoltes dans le Royaume-Uni, pour l'année 1866, se trouvera Classe 67. Le nombre de têtes de bétail vivant se lira Classes 75 à 77.

Classe LXXV.

CHEVAUX, ÂNES, MULETS, ETC.

Il n'y a point de rapport statistique sur la quantité de chevaux existant dans le Royaume-Uni, excepté toutefois ceux relatifs au nombre de chevaux et de mulets soumis à un droit ou qui en sont exemptés. Le nombre de ces derniers est indiqué ci-après, pour chacune des divisions du Royaume-Uni, en 1864 :—

	Chevaux et Mulets Nombre
En Angleterre et dans le Pays de Galles, taxés	537,639
En Angleterre et dans le Pays de Galles, exempts de droit	330,584
En Écosse, taxés	55,428
„ exempts de droit	147,444
Total pour la Grande-Bretagne	1,071,095
D'après les relevés concernant l'Irlande, en 1866	535,000
Total pour le Royaume-Uni	1,606,095

Il n'existe point de renseignements officiels sur le nombre d'ânes existant dans le pays.

Le tableau suivant donne les quantités et valeurs des chevaux importés dans le Royaume-Uni et de ceux exportés, pendant les cinq années 1861-65 :—

Années	Importés		Exportés (Britanniques)	
	Nombre	Valeur	Nombre	Valeur
		£		£
1861	1,595	37,693	2,954	237,813
1862	1,978	40,581	4,288	267,956
1863	1,441	39,264	5,204	269,825
1864	1,357	34,319	4,664	230,931
1865	1,332	39,658	4,400	185,367

Quatre ânes seulement, d'une valeur de 20%, ont été importés en 1865, et 130 ânes et mulets, évalués à 1,291%, ont été exportés dans la même année.

Classe LXXVI.

BŒUFS, BUFFLES, ETC.

Le relevé ci-après représente les quantités du bétail existant, en 1866, dans chacune des divisions du Royaume-Uni:—

Divisions	Vaches	Autres sortes de Bétail	Total
Angleterre . .	1,290,529	2,016,505	3,307,034
Pays de Galles . .	222,546	318,855	541,401
Écosse . .	370,447	566,954	937,401
Irlande . .	1,481,446	2,261,486	3,742,932
Île de Man . .	7,755	10,932	18,687
Jersey . .	5,815	6,222	12,037
Guernesey . .	3,030	3,946	6,976
Total . .	3,381,568	5,184,900	8,566,468

En dehors du bétail élevé dans le pays pour l'alimentation, il s'en importe considérablement de l'étranger, surtout des États du nord de l'Europe. L'augmentation que l'on remarquera dans le chiffre des importations de 1864 et 1865 était due, en grande partie, à la maladie (peste) qui a régné en Angleterre parmi les bêtes à cornes. Le nombre et la valeur des bestiaux de toutes sortes importés dans le Royaume-Uni pendant les cinq années 1861-65, ont été:—

	Nombre	Valeur £
1861 . .	107,096	1,558,065
1862 . .	97,887	1,301,602
1863 . .	150,898	1,931,814
1864 . .	231,733	3,208,851
1865 . .	283,271	4,401,482

L'exportation du bétail est tout-à-fait insignifiante.

Le nombre total des animaux de l'espèce bovine déclarés atteint par la maladie contagieuse dans la Grande-Bretagne, depuis le commencement de l'épidémie jusqu'au 10 novembre 1866, s'est élevé à 253,730. De ce chiffre, 85,018 ont été abattus, 124,305 ont succombé au mal, 33,413 furent guéris, et 10,994 dont il n'est pas fait mention; 52,415 têtes de bétail sain ont été abattues pendant la même période pour arrêter les progrès de la maladie. La proportion des animaux atteints jusqu'au 10 novembre 1866 a été, par rapport à l'ensemble du bétail, de 5-141 pour cent.

Classe LXXVII.

MOUTONS, CHÈVRES.

Le nombre total des moutons était, pour l'année 1866, dans chacune des divisions du Royaume-Uni, savoir:—

	Nombre
En Angleterre	15,124,000
Pays de Galles	1,668,000
Écosse	5,255,000
Irlande	4,270,000
Île de Man	55,954
Jersey	517
Guernesey	1,214

Total . 26,374,685

Toutefois, le chiffre afférent à l'Angleterre est probablement de beaucoup inférieur à ce qu'il devait être, car il n'a pas été possible, à l'époque où le relevé a été fait, d'y comprendre une grande quantité d'agneaux. On ne connaît pas le nombre de chèvres qu'il y a dans le Royaume-Uni, mais on n'en entretient que très-peu.

Il se fait annuellement, dans le Royaume-Uni, une importation considérable de moutons et d'agneaux, provenant presque exclusivement d'Europe, principalement de Hambourg, de la Hollande et de Belgique. Le chiffre de cette importation, pour les cinq années 1861-65, a été de—

	Nombre	Valeur £
1861 . .	312,923	616,020
1862 . .	299,472	569,315
1863 . .	430,788	669,573
1864 . .	496,243	873,905
1865 . .	914,170	1,787,866

L'augmentation considérable du chiffre des entrées, en 1865, doit être attribuée à la rareté de la viande sur le marché intérieur, produite par la maladie des bêtes à cornes.

Il s'exporte un très-petit nombre de moutons; il en est sorti, en 1865, 2,477 seulement, représentant une valeur de 22,134%.

Classe LXXVIII.

PORCS, LAPINS, ETC.

Le rapport sur le nombre de porcs existant dans le Royaume-Uni n'est pas complet, puisqu'il ne comprend pas, dans ses relevés, ceux de ces animaux qui sont élevés dans les chaumières ou 'cottage', et dans les villes de l'Angleterre, du pays de Galles et de l'Écosse. Toutefois, déduction faite de ces derniers, le chiffre total des porcs, dans le Royaume-Uni, s'élevait, en 1866, à 3,990,000. Les lapins abondent dans toutes les parties du pays, mais il n'y a aucun relevé de leur nombre supposé.

Les importations de porcs, pendant les cinq années 1861-65, ont été de—

		Nombre	Valeur £
1861	.	30,308	37,884
1862	.	18,162	17,319
1863	.	27,137	53,685
1864	.	85,362	192,566
1865	.	132,943	359,065

Il s'importe, du Continent, un grand nombre de lapins, mais les rapports des douanes n'en tiennent pas compte séparément. L'exportation des porcs est très-faible; ainsi, en 1865, il n'en est sorti que 148, d'une valeur de 559£.

Classe LXXIX.

OISEAUX DE BASSE-COUR.

Il n'existe point de statistique sur le nombre d'oiseaux de basse-cour existant dans le pays, mais il s'en produit suffisamment pour les besoins de la population puisque leur importation représente une valeur comparativement très-minime. Les œufs ne sont pas compris dans cette classe; ils se trouvent mentionnés dans la Classe 69.

La valeur de la volaille, y compris le gibier et les lapins, importée dans le Royaume-Uni pendant les cinq années 1861-65, a été :—

		£
1861	.	74,000
1862	.	86,000
1863	.	109,000
1864	.	131,000
1865	.	148,000

Classe LXXX.

CHIENS DE CHASSE ET DE GARDE.

Il n'y a point de relevés statistiques concernant le nombre de chiens, dans le Royaume-Uni, car, bien qu'ils soient soumis à une taxe,

le paiement du droit est si souvent éludé qu'il devient impossible de s'appuyer sur les rapports officiels pour arriver à obtenir une appréciation exacte de la quantité de ces animaux entretenus dans le pays.

Classe LXXXI.

INSECTES UTILES.

Les seuls insectes, élevés dans le Royaume-Uni, qui puissent être rangés dans cette classe, sont les abeilles, dont la culture atteint des proportions considérables sur différents points du pays. Divers perfectionnements ont été apportés, pendant les dix dernières années, dans la forme des ruchers, mais comme règle, c'est l'ancienne ruche de paille qui est le genre ordinairement adopté pour la conservation des abeilles dans ce pays. Les quantités de miel et de cire importées dans le Royaume-Uni, en 1865, ont été :—

		Quintaux
Miel	.	4,519
Cire	.	10,678

Il n'y a pas de statistique de la production indigène de ces articles.

Classe LXXXII.

POISSONS, CRUSTACÉS ET MOLLUSQUES.

L'appareil le plus important, compris dans les limites de cette classe est celui dont on se sert pour l'élevage artificiel du poisson; il a été employé avec succès dans différentes parties du pays. Cet appareil est aujourd'hui si généralement connu qu'il n'est pas nécessaire d'en parler davantage ici. On trouvera, à la Classe 70, des informations sur les produits des pêcheries britanniques.

GROUPE IX.

(CLASSES LXXXIII. à LXXXVIII.)

PRODUITS VIVANTS ET SPÉCIMENS D'ÉTABLISSEMENTS DE L'HORTICULTURE.

Classe LXXXIII.

SERRES ET MATÉRIEL DE L'HORTICULTURE.

DIVERS perfectionnements ont été faits, ces dernières années, dans la construction des serres-chaudes et des serres de jardins, particulièrement en ce qui concerne le dessin de ces dernières. Quant aux appareils, la machine inventée pour tondre le gazon est un des plus remarquables; elle peut couper l'herbe à toutes les époques de l'année et à toutes les heures du jour, tandis que la faux ne peut servir qu'autant que l'herbe est couverte de rosée. Plusieurs autres perfectionnements ont encore été apportés, depuis les dix dernières années, dans les ustensiles et appareils du jardinage; ces résultats sont dus à l'attention croissante dont la culture et l'ornementation des jardins sont l'objet, de même que les serres et autres constructions pour la culture artificielle des plantes, et qui font maintenant partie de la plupart des habitations modernes de quelque importance.

Classe LXXXIV.

FLEURS ET PLANTES D'ORNEMENT.

Outre les dispositions naturelles du peuple anglais pour la culture des fleurs, les nombreuses sociétés d'horticulture et de botanique ont puissamment contribué, par l'établissement de jardins et par de nombreuses expositions publiques de fleurs et de plantes, à entretenir ce goût national. Les parterres de fleurs appartenant aux hautes et moyennes classes de la société sont généralement reconnus pour n'être surpassés par ceux d'aucune autre nation du monde; et par suite des rapports intimes de l'Angleterre avec toutes les parties du globe, ses jardins ont été enrichis de spécimens de tous les climats. Parmi les récentes importations, peuvent être mentionnées plusieurs magnifiques fleurs et plantes du Japon, jusqu'ici très-rares. L'art de l'ornement dans le jardinage a été, ces dernières années, beaucoup développé en

Angleterre, ce qui est dû, en grande partie, à l'augmentation de la richesse des classes moyennes.

Classe LXXXV.

PLANTES POTAGÈRES.

Les légumes de toutes sortes sont cultivés sur une grande échelle dans le Royaume-Uni, mais, à l'exception des pommes de terre, il n'existe aucun relevé sur l'étendue de cette culture.

La superficie du terrain consacré à la culture des pommes de terre était, en 1866 (jardins non-compris):—

	Acres
En Angleterre et le pays de Galles	356,000
Écosse	143,000
Irlande	1,051,000
Île de Man	4,000
Îles de la Manche	2,000
Total	1,556,000

Il s'importe aussi de grandes quantités de pommes de terre et d'oignons, principalement de France, de Hollande, de Belgique et de Portugal. Cette importation a été, en 1865, pour le Royaume-Uni, de 807,000 quintaux de pommes de terre, d'une valeur de 162,000*l.*, et de 529,000 bushels (boisseaux) d'oignons, estimés à 121,000*l.*

Classe LXXXVI.

ARBRES FRUITIERS.

Des arbres fruitiers de diverses espèces, particulièrement le pommier, le poirier et le cerisier, sont cultivés en grand dans différentes parties du royaume. Les comtés de Devon, de Somerset, et d'Hereford, produisent des pommes en quantité pour la fabrication du cidre. Les cerises du comté de Kent sont aussi renommées pour leur bonnes qualités. Différents

autres genres de fruits poussent dans les réserves privées et dans ce qu'on appelle les *vergers du marché* ('market-gardens'); leur production annuelle est considérable, mais il n'existe aucun moyen d'en estimer la valeur. On apporte la plus grande attention au développement de la culture des arbres fruitiers, et chaque année on constate l'apparition de plusieurs sortes de fruits perfectionnés.

En dehors de la production du pays, de grandes quantités de fruits ordinaires sont annuellement importées dans le royaume; parmi les principaux figurent, en 1865:—

	Bushels (boisseaux)
Les pommes (vertes) . . .	516,000
„ poires . . .	41,000
„ noix . . .	143,000
„ noisettes . . .	251,000
„ marrons . . .	72,000
„ raisin . . .	58,000

Ce dernier fruit ne pousse pas en plein air dans le Royaume-Uni, mais les serres-chaudes en fournissent abondamment.

Les raisins secs, les amandes douces, les dattes, les figues, les oranges et les citrons ne sont point produits dans le pays, mais ils y sont importés.

Les chiffres de cette importation étaient, pour 1865:—

	Quintaux
Raisins . . .	368,000
Amandes douces . . .	32,000
Figues sèches . . .	78,000
Dattes . . .	16,000
	Boisseaux
Oranges et citrons . . .	1,567,000

Classe LXXXVII.

GRAINS ET PLANTS D'ESSENCES FORESTIÈRES.

Bien que la culture des forêts, dans le Royaume-Uni, soit comparativement assez

limitée comme étendue, puisqu'elle ne comprend que celles appartenant à la Couronne et à quelques grands propriétaires fonciers, l'élevage des arbres pour forêts et plantations est l'objet d'une grande attention. Les parcs qui entourent les résidences de province des propriétaires fonciers sont garnis d'arbres forestiers de toutes sortes, mais leur culture a principalement pour but l'ornementation. Il y a peu de pays, peut-être, où on rencontrerait, comme dans les bois et plantations de certains comtés de l'Angleterre, une si grande variété de feuillages.

Classe LXXXVIII.

PLANTES DE SERRES.

Il est impossible, dans les limites de ces remarques, d'indiquer les différentes méthodes adoptées dans le Royaume-Uni pour la culture des plantes de serres; mais il y a lieu d'espérer que quelques-uns des plus récents systèmes de culture seront représentés à l'Exposition. On se sert toujours beaucoup de tuyaux de briques pour le chauffage, bien qu'on emploie aussi dans une grande mesure les appareils à l'eau chaude et à gaz. Divers perfectionnements ont été introduits, ces dernières années, dans la construction des serres-chaudes; quelques-uns des plus importants sont dus à feu Sir J. Paxton; et la réduction dans les prix du verre a donné aux architectes une plus grande latitude pour ériger et orner ces bâtiments. La culture des plantes de serres-chaudes trouve, en dehors de leur entretien dans un but d'agrément, un grand encouragement dans les expositions provoquées par diverses sociétés du royaume, notamment par la Société d'Horticulture; on y décerne des prix pour les meilleurs spécimens de fleurs connues, ainsi que pour la production de quelque nouvelle plante de serre-chaude.

GROUPE X.

(CLASSES LXXXIX.-XCIII.)

OBJETS SPÉCIALEMENT EXPOSÉS EN VUE D'AMÉLIORER LA
CONDITION PHYSIQUE ET MORALE DE LA POPULATION.

Classe LXXXIX.

MATÉRIEL ET MÉTHODES DE L'ENSEIGNEMENT DES ENFANTS.

BIEN qu'elles ne soient pas représentées à l'Exposition actuelle, il y a, dans le Royaume-Uni, de nombreuses sociétés soutenues par des dons volontaires, et qui ont pour objet de fournir aux écoles primaires et au public en général le moyen d'obtenir à très-bas prix des livres d'une doctrine saine. Quant aux bâtiments scolaires, le Département de Science et d'Art entretient une exposition permanente des meilleurs modèles de ces bâtiments, et du matériel et mobilier d'école. On a donné beaucoup de soins à l'éducation des aveugles en Angleterre, où on leur enseigne non-seulement à lire, mais aussi la musique et différents métiers. Il y a plusieurs établissements à Londres et autres grandes villes pour servir de refuge à ces infortunés, et pouvant secourir des centaines d'individus.

On assure qu'il sort annuellement de la célèbre institution de Southwark pour les aveugles pauvres, de douze à quinze cents jeunes gens pourvus d'une bonne éducation religieuse et scolaire, et possédant un métier, tel que cordonnier, nattier, tisserand, brossier, vannier; et quelques-uns d'entre'eux sont en état de jouer de l'orgue et d'autres instruments. Des résultats analogues sont obtenus dans la plupart des autres institutions.

Le nombre total des aveugles dans le Royaume-Uni était, suivant le recensement de 1861 :—

En Angleterre et le	19,352	{ ou un aven-	1,037	{ habi-
Pays de Galles		gle sur		tants
Ecosse	2,820	"	1,086	"
Irlande	6,879	"	843	"
Iles des mers		"		
britanniques	197	"	728	"
	29,248	"	994	"

L'exposition des ouvrages d'éducation, des cartes, etc. démontrera suffisamment le soin que l'on prend du bien-être moral et social du peuple.

Classe XC.

BIBLIOTHÈQUES ET MATÉRIEL DE L'ENSEIGNEMENT DONNÉ AUX ADULTES DANS LA FAMILLE, L'ATELIER, LA COMMUNE OU LA CORPORATION.

Depuis plusieurs années des bibliothèques et des cabinets de lecture à l'usage des ouvriers ont été rattachés aux institutions littéraires et à celles dites des 'artisans' (Mechanics' Institutes) que l'on trouve dans presque toutes les villes et bourgs du royaume. L'établissement des bibliothèques publiques dans les grandes villes est de date plus récente. Les adultes appartenant aux plus pauvres classes de la société trouvent à s'instruire dans les écoles d'ouvriers et aux cours du soir qui ont lieu dans différentes institutions, et notamment dans celle des 'artisans.' Les promoteurs de toutes les institutions dont il vient d'être question ont été puissamment secondés dans leurs efforts par un grand nombre des éditeurs du pays, qui ont eu à cœur le bien-être réel de l'ouvrier. Les ouvrages d'éducation publiés à bon marché, notamment ceux destinés à apprendre par soi-même, sont aujourd'hui si nombreux que l'embarras n'est pas de se les procurer, mais bien de faire un choix parmi ces grandes quantités de livres. L'immense circulation des publications périodiques, des bons ouvrages réimprimés, et particulièrement celle des journaux à bas prix, peut être considérée comme une preuve évidente de progrès dans l'éducation des masses.

Classe XCI.

MEUBLES, VÊTEMENTS ET ALIMENTS DE TOUTE ORIGINE DISTINGUÉS PAR LES QUALITÉS UTILES UNIES AU BON MARCHÉ.

Dans un pays comme le Royaume-Uni, où une si grande partie de ses produits manufacturés sont destinés aux masses de la population, il devient difficile de désigner quels genres

spéciaux d'articles doivent être compris dans cette classe. Par suite d'un débit considérable et de l'emploi des machines pour leur manufacture, la plupart des articles ordinaires de meubles, vêtements et aliments, sont vendus suffisamment bon marché pour permettre à tous les membres actifs et laborieux de la société de se les procurer. Le prix des objets plus spécialement utilisés par les classes pauvres est également maintenu très-bas. Ce résultat est dû à la concurrence très-active que se font les fournisseurs, concurrence que justifie d'ailleurs la nature même du commerce qui ne se fait qu'au comptant, et qui rapporte de beaux bénéfices malgré que les articles vendus ne donnent au détail qu'un léger profit.

On doit mentionner ici l'établissement et le rapide développement des sociétés coopératives et de prévoyance qui procurent à leurs membres, principalement de la classe ouvrière, beaucoup d'articles de nourriture et de vêtement à prix coûtant, et sans compter le bénéfice qu'ils réalisent par suite de l'achat de ces articles aux magasins de dépôt.

Classe XCII.

SPÉCIMENS DES COSTUMES POPULAIRES DES DIVERSES CONTRÉES.

On trouvera à la Classe 35 quelques marques sur les diverses sortes de vêtements portés par les différentes classes de la société dans le Royaume-Uni.

Classe XCIII.

SPÉCIMENS D'HABITATIONS CARACTÉRISÉES PAR LE BON MARCHÉ UNI AUX CONDITIONS D'HYGIÈNE ET DE BIEN-ÊTRE.

Le perfectionnement des habitations destinées aux classes ouvrières a depuis longtemps été le

sujet d'une grande attention en Angleterre. Ceux qui visiteront l'Exposition de Londres en 1851 se rappelleront sans doute l'habitation modèle élevée sous la direction de feu le Prince Albert, et qui intéressa au plus haut point les visiteurs. Depuis cette époque, diverses sociétés, et notamment la Société des Arts, ainsi que des simples particuliers, ont recherché avec ardeur les meilleurs moyens d'améliorer les habitations d'ouvriers, et on a bâti dans diverses parties de la ville des masses de maisons à l'usage des classes de travailleurs; mais, malgré tout ce qu'on a déjà fait sous ce rapport, la majeure partie des pauvres est condamnée à vivre dans de misérables habitations. Par suite de l'extension donnée aux chemins de fer et aux travaux publics, le besoin de construire des maisons dans la métropole pour les classes ouvrières augmente chaque année. Deux ou trois compagnies de chemin de fer ont procuré quelques soulagements aux ouvriers en les transportant à prix réduits de Londres à la banlieue et vice versa; et si toutes les compagnies de chemins de fer de la métropole accordaient la même faveur, il en résulterait certainement un grand bienfait. Il ne faut toutefois pas oublier que l'heure matinale à laquelle les ouvriers commencent leur journée les empêche de demeurer à une trop grande distance de leur travail.

Malheureusement ce n'est pas dans la métropole seulement que les habitations des classes laborieuses laissent à désirer, car il en est de même dans plusieurs grandes villes de province, ainsi que dans beaucoup de districts agricoles. En effet, cette nécessité a atteint de si grandes proportions que l'on ne pourra y remédier qu'au moyen d'entreprises exécutées sur une grande échelle. On peut espérer que les spécimens exposés sous cette classe stimuleront davantage encore l'intérêt qui s'attache à cette importante question.

STATISTISCHE BERICHTE ÜBER DIE GROSSE AUSSTELLUNG ALLER NATIONEN VON 1851; DIE PARISER ALLGEMEINE AUSSTELLUNG VON 1855; DIE INTERNATIONALE AUSSTELLUNG VON 1862.

VON WILLIAM MATCHWICK, F.L.S.

DIE GROSSE AUSSTELLUNG ALLER NATIONEN IM JAHRE 1851.

DAS Ausstellungsgebäude, hauptsächlich aus Glas und Eisen bestehend, wurde im Hyde-Park zu London auf einem Flecke errichtet, den das Publicum nicht viel betritt, der aber zu dem beabsichtigten Zwecke besonders geeignet war.

An der Südseite des Parks ist ein offener Platz von bedeutendem Umfange, welcher, mit derselben parallel laufend, die Landstrasse nach Kensington und Hammersmith, der Hauptzufahrt von Westen in die Hauptstadt, begränzt. Der Platz liegt zwischen der Cavallerie-Caserne zu Knightsbridge und der Queen's Gate, dem neuen Eingange in den Park, zwei bis drei hundert Schritte vom alten Kensington Schlagbaum.

Ungefähr zwanzig Morgen von diesem Platze (vom Prinzgemahl zu diesem Behufe empfohlen) wurden von den königlichen Commissairen zur Errichtung des beabsichtigten Gebäudes gewählt.

Bevor jedoch irgend etwas unternommen werden konnte, war es nöthig, die Erlaubniss der Krone zur Benutzung eines Theiles dieses der bedeutendsten Parkes in London zu erwirken.

Diese wurde gnädigst ertheilt, jedoch unter der Bedingung, dass nach Beendigung der Ausstellung der eingeräumte Platz wieder in den ursprünglichen Zustand versetzt werden müsse, um wieder dem Publicum zur Benutzung und Erholung zu dienen.

Ungeachtet der eifrigsten und mannigfachen Bemühungen, das Gebäude zu erhalten, wurde die gestellte Bedingung gewissenhaft erfüllt, und jede Spur der Ausstellung war am 1. Juni 1852 verschwunden, also wenig mehr als zwanzig Monate vom Beginne der Arbeiten, denn die erste Säule wurde am 25. September 1850 errichtet.

An Ort und Stelle befindet sich jetzt nichts zur Bezeichnung des Fleckes als etwa die zwei

Ulmen, durch eiserne Umzäunung geschützt. Diese beiden Bäume standen (neben anderen) im Mittelschiffe, einer am nördlichen, der andere am südlichen Ende.

Sie dienen zur Bezeichnung des Mittelpunkts des Gebäudes und, obschon durch die lange und unnatürliche Einsperrung in ihrem weiteren Wachstume behindert, gewähren sie dennoch einen ziemlich genauen Begriff der Höhe und Länge des Mittelschiffes, denn sie sind von bedeutendem Alter und gute Waldexemplare ihrer Art.

Westlich von diesem Punkte, und in gleicher Linie, ist man mit der Errichtung des National-Denkmales zum Andenken an den Prinzgemahl, welcher sich so sehr mit der grossen Ausstellung in 1851 identificirt hat, beschäftigt. Dieses Denkmal wird nach seiner Vollendung den Ort der grossen Ausstellung bezeichnen, wenn selbes auch beiläufig 500 Yard von dem westlichen Ende des früheren Gebäudes sich befindet. Der Crystal-Palast zu Sydenham ist hauptsächlich aus den Materialien des grossen Ausstellungsgebäudes von 1851 errichtet.

Der Erbauer des Gebäudes war der verstorbene Sir Joseph Paxton, und die Bauunternehmer die Herren Fox (jetzt Sir Charles Fox) und Henderson.

Sir Joseph Paxton hatte in seinem Originalplan dasselbe Prinzip befolgt, welches er bei dem Bau der grossen Gewächshäuser zu Chatsworth, dem Sitze des Herzogs von Devonshire, angewandt hatte; es wurden jedoch bedeutende Veränderungen in dem ersten Plane angebracht und manche der Vorzüge des Gebäudes verdankt man dem Sir Charles Barry, Sir William Cubitt, Mr. Robert Stephenson und Mr. Brunell.

UMFANG DES GEBÄUDES.

Der ganze bedeckte Raum, oder der Total-

Flächenraum des Gebäudes, ward ursprünglich auf 800,000 Quadratfuss festgesetzt, späterhin aber auf ungefähr eine Million Quadratfuss, oder mehr als zwanzig Morgen Raum, erhöht.

Von diesem Flächenraume veranschlagte man die Hälfte (500,000 Quadratfuss) zur Ausstellung der Gegenstände, und die andere Hälfte zu Wegen und Durchgängen.

Bei der Vertheilung dieses Raumes machten es die königlichen Commissaire zur Bedingung, dass die Hälfte Grossbritannien und ihren Colonien und die andere Hälfte fremden Ländern eingeräumt werde.

An der Ost- und Westseite des Gebäudes war ein Raum von 30,712 Quadratfuss umzäunt, der zu Ausstellung von Gegenständen bestimmt war, welche nicht im Gebäude untergebracht werden konnten.

ANZAHL DER AUSSTELLER.

Die Gesamtzahl der Aussteller war 13,937, wovon 7,381 auf Grossbritannien und Colonien und 6,556 auf fremde Länder kamen. Einige Länder, als Indien, die Türkei, Egypten und Tunis, und gewisse Personen, welche sich zur Sendung von Gegenständen vereinigten, sind als nur ein Aussteller aufgezeichnet, so dass, mit Inbegriff dieser die Zahl der Aussteller wohl auf 15,000 bis 16,000 geschätzt werden darf.

Die folgende Uebersicht giebt die Zahl der Aussteller und den von ihnen benutzten Raum:—

	Anzahl der Aussteller	Benutzter Raum
		Quadratfuss
Grossbritannien . . .	6,861	503,424
Britische Colonien . . .	520	40,896
Summa . . .	7,381	544,320
Amerika (Vereinigte Staaten)	499	44,352
Oestreich	731	48,384
Belgien	506	37,440
China	30	5,184
Dänemark	39	1,152
Egypten	—	2,304
Frankreich	1,710	119,808
Preussen und Zollverein	1,402	77,184
Griechenland	36	576
Nord-Deutschland	134	2,880
Niederlande	113	4,608
Persien	12	576
Portugal	157	3,456
Rom	52	3,456
Russland	263	13,824
Sardinien	95	4,032
Spanien	286	4,032
Schweden und Norwegen	117	1,728
Schweiz	263	12,096
Tunis	—	4,608
Türkei	—	6,912
Toscana	99	4,608
Süd-Amerikanische Staaten	12	576
Summa fremder Staaten . .	6,556	403,776
Gesamtsumme	13,937	1,033,344

KOSTEN DER AUSSTELLUNG.

Es ergibt sich aus der Zusammenstellung der Ausgaben, welche die königlichen Commissaire veröffentlichten, dass dieselben für Erbauung und Einrichtung des Gebäudes 170,000 $\frac{1}{2}$ betrugten. Nimmt man die Oberfläche des überdeckten Raumes zu einer Million Quadratfuss an, so würde dies eine Auslage von ungefähr 3s. 5d. per Quadratfuss ausweisen.

Folgende sind die Hauptabtheilungen der Auslagen:—

Salaire, jene der königlichen Commissaire einbegriffen, Verwaltungsausschuss, Sachverständige, Preisrichter	£71,975
Polizei	19,648
Bureau Ausgaben, als Miethe, Möbel, Papier, Schreibmaterialien, Drucksachen, Briefporto, Annoncen u. s. w.	8,869
Allgemeine Unterhaltungskosten der Ausstellung, mit Inbegriff der Kohlen für Dampfkessel, Beleuchtung, Wasser, Bewässerung der Wege, Werkzeuge, Reparaturen, unvorhergesehene Unkosten u. s. w.	4,878
Juri-Abtheilung: Kosten der Medaillen, Etuis, Diplome, Photographien, Berichte, Versuche mit Ackerbaugeräthen und anderen Maschinen	6,917
Rechtskosten, Zinsen auf Vorschüsse u. s. w.	10,508
Summa	£122,795

wodurch sich die Gesamtauslagen für die Ausstellung, mit Inbegriff der Erbauung des Gebäudes, ungefähr auf 292,795 $\frac{1}{2}$ belaufen.

Man muss jedoch nicht aus dem Auge lassen, dass der Contract mit den Herren Fox und Henderson nicht den unbedingten Kauf des Gebäudes von Seiten der königlichen Commissaire feststellte, sondern es nur zur Benutzung derselben überliess, aber Eigenthum der Bauunternehmer blieb. Wäre dem nicht so gewesen, so würden die Gesamtkosten der Ausstellung wenigstens um weitere 100,000 $\frac{1}{2}$ erhöht worden sein.

ZULASSUNG VON BESUCHERN.

Die Ausstellung wurde dem Publicum am Donnerstag den 1. Maigeeöffnet und Sonnabend den 11. October geschlossen, nachdem sie daher 141 Tage offen gewesen. Am folgenden Montage und Dienstag hatten die Aussteller und deren Bekannte freien Zutritt, und am Mittwoch dem 15. October fand die endliche Schluss-Ceremonie in Anwesenheit der Aussteller, Preisrichter, fremden und inländischen Commissaire, der Ausschüsse und sonstiger Persönlichkeiten statt.

Der Zutritt war dem Publicum mittelst Abonnements-Billete oder Bezahlung am Eingange bewilligt. Der Preis der Abonnements-Billete war auf drei Guineen für Herren und zwei Guineen für Damen festgestellt. Nach dem 31. Juli fand eine Ermässigung auf je 1l. 10s. und 1l. statt. Am Eröffnungstage wurde kein Geld am Eingange angenommen; nur Abonnements-Billete berechtigten zum Eintritte. Während zwei Tagen nach der Eröffnung war der Zutrittspreis 1l., vom 5. bis 24. Mai (inclusive) 5s. Vom 26. Mai bis 2. August (inclusive) bestand folgender Satz, nämlich: Montag, Dienstag, Mittwoch und Donnerstag, 1s.; Freitag, 2s. 6d.; Sonnabend, 5s.; und von dem letztgenannten Datum bis zur Schliessung der Ausstellung ward hieran nichts geändert, ausser dass der Eintrittspreis an Sonntagen auf 2s. 6d. ermässigt wurde.

Anfangs wurden die Thore um zehn Uhr Morgens geöffnet und Abends um sechs Uhr geschlossen, mit Ausnahme von Sonntagen, an welchem Tage das Gebäude erst um zwölf Uhr Mittags geöffnet wurde.

Am Montage dem 18. August öffnete man um neun statt zehn Uhr Morgens, und so bis zur Schliessung der Ausstellung. Einige Abänderungen wurden später in den Schlussstunden gemacht, je nach der Jahreszeit. Im Hochsommer stand das Gebäude bis sieben Uhr Abends offen, und mit dem Vorrücken der Jahreszeit ertönte die Glocke um sechs Uhr, und später immer zehn Minuten vor Sonnenuntergang.

EINNAHMEN.

Die Gesamt-Einnahmen beliefen sich auf:—

Subscriptionen	£67,897
Catalog-Contract	3,200
Erfrischungs-Contract	5,500
Abonnements-Billete	67,514
Eintrittsgelder	356,278
Toilettenzimmer, Regenschirme, Prägung von Medaillen im Ge- bäude und Wetterkarten	4,580
Zinsen und Prämien auf Schatz- kammerscheine	898
Verschiedene Einnahmen	233
Summa	£506,100

Verkauft wurden 25,605 Abonnements-Billete, wovon 13,494 an Herren und 12,111 an Damen. Von dieser Anzahl wurden 135 an Herren und 184 an Damen zu den ermässigten Preisen von 30s. und 20s. abgegeben.

Die Durchschnittseinnahmen an den Thüren (den Eröffnungstag nicht inbegriffen, an dem kein Geld angenommen wurde) betrugen per Tag, die ganze Dauer der Ausstellung in Anschlag gebracht, 2,548l. Während der

ersten drei Wochen, bei 5s. Eintritt, betrug der tägliche Durchschnitt 2,546l., eine erstaunenswerthe Annäherung der erstgenannten Summe. Die grösste Einnahme an einem Tage wurde am 8. October (Shillingstag) erzielt, nämlich 5,283l., und die geringste am 26. Mai, nämlich 920l., dem ersten Tage der Herabsetzung auf 1s. Diese verhältnissmässig geringe Einnahme muss der Befürchtung von Seiten des Publicums zugeschrieben werden, dass ein so geringer Eintrittspreis eine solche Masse von Besuchern anlocken würde, dass die Anwesenheit im Ausstellungsgebäude nicht nur mit Unannehmlichkeiten, sondern selbst Gefahr verknüpft sein würde.

Die folgende Tabelle zeigt die Einnahmen an den Thüren zu den verschiedenen Eintrittspreisen:—

Tage	Eintrittspreise			Einnahmen			Durchschnitts-einnahmen		
	£	s.	d.	£	s.	d.	£	s.	d.
2	1	0	0	1,042	0	0	521	0	0
28	0	5	0	61,347	7	0	2,191	0	0
30	0	2	6	72,447	11	0	2,414	17	0
80	0	1	0	221,971	3	0	2,774	12	0
140				356,803	1	0			

Der Verlust an leichtem Golde, beschädigtem, falschem und fremdem Gelde war beträchtlich, etwas mehr als 530l., woraus sich der Unterschied zwischen der zuerst angegebenen und der obigen Summe erklären lässt.

ANZAHL DER BESUCHER.

Die Gesamtanzahl der Besucher während der Periode der Ausstellung belief sich auf 6,039,195. Während 141 Tagen kamen 773,766 Personen mit Subscriptions-Billets. An den zwei Tagen, wo 1l. zu bezahlen war, fanden sich 1,042 Personen ein. Die 28 Tage mit 5s. Entrée brachten 245,389l. und die 30 Tage zu 2s. 6d. 579,579 Besucher. Im Laufe der 80 Tage zu 1s. fanden sich 4,439,419 Personen ein. Eine Durchschnittsberechnung, auf diese Zahlen basirt, ergibt folgende Resultate:—

Abonnements-Billete	5,473	per Tag
Eintrittspreis	£ s. d.	
1 0 0	521	„ „
0 5 0	8,763	„ „
0 2 6	19,319	„ „
0 1 0	55,493	„ „

Die königlichen Commissaire und der Verwaltungsausschuss erleichterten, so viel als möglich, die freie Zulassung aller Personen, deren Anwesenheit unumgänglich nothwendig war; eigentliche Freikarten wurden aber nie ertheilt. Alle von der königlichen Commission Angestellte, Polizei, Militair, fremde Commissaire, gewisse Mitglieder der Presse Agenten und Diener der Aussteller, die Preisrichter und viele sonstige nicht besonders bezeichnete Per-

sonen hatten während der ganzen Dauer der Ausstellung freien Zutritt und vermehrten daher beträchtlich die Zahl der im Gebäude stets Anwesenden. Die grössere Anzahl so Begünstigter kamen vor Eröffnung der Thore und wurden von der Polizei nicht gezählt; im Gebäude beschäftigte Personen wurden als Regel nie gezählt.

Die grösste Anzahl von Anwesenden im Gebäude war am 7. October (vier Tage vor dem Schluss). An diesem Tage besuchten 109,915 Personen die Ausstellung, die grösste Anzahl an einem Tage während der ganzen Ausstellung; um zwei Uhr Nachmittags an diesem Tage schätzte man die Anwesenden im Gebäude auf nahe Hundert Tausend. Am Montage, 6. October, betrug die Zahl 107,815; Mittwoch, 8. October, 109,760; Donnerstag, 9. October, 90,813. Diese vier Tage waren die letzten Schillingstage während der Ausstellung; die Gesamtanzahl der Besucher an selben betrug 418,303, oder durchschnittlich 104,576 für jeden dieser vier Tage.

PREISGERICHTE (JURY).

Die wirkliche Zahl der Preisrichter für die Ausstellung belief sich auf 318, d. h. 161 Britische und 157 fremde und sie vertheilten sich wie folgt:—

Oestreich	17
Belgien	14
Dänemark	1
Egypten	2
Frankreich	38
Grossbritannien	161
Griechenland	1
Deutschland (Nord-)	2
Holland	2
Italien	6
Portugal	2
Russland	7
Sicilien	1
Spanien	4
Schweiz	7
Schweden	1
Türkei	5
Vereinigte Staaten	24
Zollverein	23
Summa	318

Den Preisrichtern waren 100 Hülfspreisrichter zur Seite gegeben, welche von den ersteren speciell ernannt wurden, um ihnen in ihren Entscheidungen beizustehen, ohne jedoch selbst Stimme zu haben. Siebenzig der Preisrichter und Hülfspreisrichter waren zugleich Aussteller. Die folgende Tabelle weist die Zahl der Preisrichter und Hülfspreisrichter für jede Klasse aus:—

Klasse		Preis-richter	Hülfpreis-richter
ROHSTOFFE.			
1	Bergbau, Steinbruch, metallurgische Arbeiten und Mineral-Erzeugnisse	8	1
2	Chemische und pharmaceutische Prozesse und Erzeugnisse im allgemeinen	8	8
3	Nahrungsmittel	6	keine
4	Thierische und Pflanzen-Substanzen, welche hauptsächlich zu Manufacturen verwendet sind	8	1
MASCHINEN.			
5	Maschinen zur unmittelbaren Benutzung, Kutschen inbegriffen, und Eisenbahn- und Schiff-Mechanismus	18	2
6	Fabrik-Maschinen und Werkzeuge	12	6
7	Ingenieurkunst, Architectur und Bauwesen	8	keine
8	Schiffbau, Kriegswesen, Geschütze und Waffen	8	7
9	Acker- und Gartenbaugeräthschaften	15	1
10	Physikalische, optische, musikalische, chirurgische Instrumente und Uhrwerke	32	7
MANUFACTURES.			
11	Baumwolle	10	3
12	Wolle und Wollengarn	12	9
13	Seide und Sammet	10	keine
14	Flachs und Hanf	10	keine
15	Gemischte Gewebe	12	2
16	Leder, Felle, Pelze, Federn, Haare	10	1
17	Papier und Schreibmaterialien, Drucksachen und Buchbinderei	8	1
18	Gewebe, gesponnene, gewalkte und gelegte Fabrikate, wenn selbe als Muster von Druck und vom Färben dienen	10	2
19	Teppigtapeten, mit Inbegriff von Teppichen, Spitzen, Stickereien und Fantasie-Arbeiten	10	keine
20	Kleidungsstoffe, zum persönlichen Gebrauche	8	8
21	Messerschmiedewaaren und Schneidewerkzeuge	6	4
22	Eisen- und Metallwaaren	12	7
23	Gold-, Silber- und Juwelier-Arbeiten	10	5
24	Glas	8	12
25	Porcellan- und Töpferwaaren	8	2
26	Möbel, Tapeten, Papier-mâché- und lakirte Waaren	12	4
27	Fabrikate von Mineralien, Bau- und Verzierungs-Materialien	8	3
28	Fabrikate von thierischen und Pflanzenstoffen, weder gewebt, noch mit anderen Klassen inbegriffen	8	1
29	Verschiedenartige und kleine Erzeugnisse	8	3
SCHÖNE KÜNSTE.			
30	Bildhauerei, Modelle und plastische Arbeiten	15	keine
Summa		318	100

Die oben angeführten dreissig Klassen wurden später auf vier und dreissig erhöht, nämlich durch Hinzufügung einer Unterabtheilung zu Klasse 5, und drei Unterabtheilungen zu Klasse 10.

PREISE.

Zwei Bronzemedaillen wurden von den Juries zuerkannt, die Rathsm- und die Preismedaille. Ein Ehren-Certificat wurde als dritter Preis zuerkannt.

Die Rathsmedaille wurde fast ausschliesslich als Belohnung für merkwürdige Erfindungen, und nicht für Fälle, wo nur ausgezeichnete Handfertigkeit das einzige Verdienst bildete, ertheilt.

Nur in wenigen Fällen wurden ausser den Auszeichnungen durch Medaillen oder Ehren-Certificat Geldgeschenke verliehen. Letzteres geschah nur ausnahmsweise, wo Handwerker grosse Auslagen hatten, um Gegenstände von Werth und Wichtigkeit herzustellen, ohne dass es ihnen möglich gewesen sein würde, dafür Ersatz zu finden.

Die Preisrichter erkannten folgende Preise zu:—

Rathsmedaillen	. . .	171
Preismedaillen	. . .	2,954
Belobungsschreiben	. . .	2,123
Summa	. . .	5,248

ZUSAMMENSTELLUNG DER PREISE.

Grossbritannien:

Rathsmedaillen	. . .	79
Preismedaillen	. . .	1,432
Belobungsschreiben	. . .	930
	—	2,441

Fremde Länder:

Rathsmedaillen	. . .	92
Preismedaillen	. . .	1,592
Belobungsschreiben	. . .	1,193
	—	2,807

Summa . . . 5,248

DIE PARISER ALLGEMEINE AUSSTELLUNG IM JAHRE 1855.

Es ist nicht ganz leicht, die genauen Localitäten und die eigentliche Lage der verschiedenen Gebäude anzugeben, welche für die Pariser allgemeine Ausstellung im Jahre 1855 errichtet wurden.

Das Hauptgebäude war geräumig, ein etwas längliches Viereck, in der Hauptallee der Champs Élysées, und wohlbekannt unter dem Namen des *Palais de l'Industrie*. Dieses Gebäude war dauerhaft gebaut, in der Absicht es für immer zu bewahren. In diesem Gebäude wurden die Erzeugnisse der sieben und zwanzig Industrieklassen hauptsächlich ausgestellt.

Südlich von diesem Hauptgebäude, mit selbem durch bedeckte Gallerien verbunden, war ein langes schmales Gebäude, genannt die *Annexe*, oder die *Galerie du Quai*, welches sich längs und nahe dem nördlichen Ufer der Seine erstreckte. Dieses Anhängsel wurde vorzugsweise zur Ausstellung von Maschinen verwendet.

Ein drittes Gebäude, zur Ausstellung der drei Klassen, die Abtheilung der schönen Künste bildend (*Palais des Beaux Arts*), bestimmt, befand sich ziemlich von den zwei anderen entfernt, nämlich an dem südwestlichen oder Flussende der Avenue Montaigne. Dasselbe war gänzlich von den zwei anderen Gebäuden getrennt; Verbindungsgänge waren wegen der Entfernung und örtlichen Lage unmöglich.

Zwischen dem Palais de l'Industrie und der Annexe befand sich ein rundes Gebäude, unter dem Namen von *Panorama* oder *Panorama-Circus*, worin die Kron-Juwelen Frankreichs, Sessel, Teppiche u. s. w. ausgestellt waren. Ausserhalb und ringsum dieses Circus' war ein beträchtlicher Raum, theils offen, theils bedeckt,

in welchem Kutschen und Wagen jeder Art, Ackerbau- und andre Geräthschaften ausgestellt waren. Hier befanden sich auch geräumige Erfrischungszimmer. Noch muss eines Gebäudes erwähnt werden, die Chinesische Ausstellung, in der Nähe des Palais de l'Industrie, aber durchaus nicht mit selbem verbunden. Diese Chinesische Ausstellung wurde nie als ein Bestandtheil der internationalen Schau betrachtet, und sie wird nur der Vollständigkeit halber erwähnt, und weil Ort und Stelle, wo selbe stand, wirklich einen Theil (wenn auch getrennt) des Kunstpalastes bildete.

Demnach bestanden drei getrennte Gebäude, ausser dem Panorama-Circus, für die Französische internationale Ausstellung in 1855, der Industriepalast oder das Hauptgebäude, die Maschinen-Annexe und der Kunstpalast.

Mit Rücksicht auf dieses letzte Gebäude hatte die Französische Regierung die Absicht, einen Theil des neuen Louvre-Palastes zur Ausstellung von Kunstwerken zu benutzen und würde dies auch ohne Zweifel gethan haben, hätte sie sich daran nicht durch die dringenden und vielen Arbeiten, welche damals sowohl von aussen als innen an diesem Palaste vorgenommen werden mussten, verhindert gefunden.

Obleich die Vorbereitungen und Bauten zur und für die Pariser allgemeine Ausstellung in 1855 mit dem Capitale einer Gesellschaft in Paris in's Leben gerufen, und zum grössten Theile ausgeführt wurden, so war es dennoch die Französische Regierung, welche wirklich ganz und gar die Ausstellung leitete, indem sie alle Gefahren des Unternehmens trug,

und der Compagnie einen gewissen Antheil am Gewinne für ihre Auslagen zusicherte.

Demzufolge ernannte der Kaiser die Commissaire, an deren Spitze den Prinzen Napoleon, zur Ueberwachung der Ausstellung; und obsohn die Gesellschaft gewisse Vorrechte, und die Befugniss gewisse Verordnungen zu veröffentlichen, genoss, so war sie dennoch in Wirklichkeit ohne Einfluss, und die ganze Handhabung der Ausstellung fiel der Regierung anheim.

Die Herren Viel und Desjardins waren die Architecten des Hauptgebäudes, die Bauunternehmer die Herren York & Co.

Mit Ausnahme des Hauptgebäudes waren alle übrigen provisorisch und wurden daher kurz nach Beendigung der Ausstellung weggeschafft. Das Hauptgebäude (Palais de l'Industrie) in den Champs Elysées wurde davon ausgenommen und besteht noch gegenwärtig. Es gehört der Regierung und wird zu Kunst- und derartigen Ausstellungen verwendet.

AUSDEHNUNG UND UMFANG.

Der ganze Flächenraum der von den Ausstellern aller Nationen in den Industrie-Abtheilungen, mit Inbegriff von Durchgängen, Thoren, Arbeits- und Empfangszimmern, in Anspruch genommen wurde, betrug 152,052 Quadratmetres, oder ungefähr 1,770,000 Englische Fuss.

Im Kunstpalast war der Raum, den Kunstwerke aller Art, als Malerei, Kupferstecherkunst, Lithographie, Bildhauerei, erheischen, 17,693 Quadratmetres, oder 15,603 horizontal-verticale Quadratmetres für Gemälde, Lithographien, und 2,036 horizontale Quadratmetres für Bildhauerarbeiten, was Alles in Allem den von Ausstellern jeder Klasse erfordernden Raum auf 169,691 Quadratmetres (ungefähr 1,866,000 Quadratfuss) bringt, worin auch die nöthigen Durchgänge u. s. w. begriffen sind. In dieser Schätzung befinden sich jedoch die Eingänge, Ateliers, und Bodenfläche im Kunstpalaste, worin keine Kunstwerke standen, nicht; überhaupt fehlen hierüber von Seiten der kaiserlichen Commission alle Angaben.

Der Ausstellungsraum im Hauptgebäude, Circus und Maschinen-Annexe vertheilt sich wie folgt:—

	Quadratmetres.
Frankreich . . .	55,669
Fremde Länder . .	46,097
Durchgänge u. s. w. .	17,021

Summa . 118,786

In der Abtheilung für schöne Künste hat nach Angabe Frankreich 2,400 Quadratmetres Wandfläche für Gemälde u. s. w., Grossbritannien 938 Quadratmetres bedeckt; der übrige Raum war von 10 anderen Länder gefüllt. Der Raum, welchen Grossbritannien

zur Aufstellung von Kunstwerken erforderte, belief sich auf 14,184 Quadratfuss.

So genau, als es überhaupt ermittelt werden konnte, betrug der Raum, welchen Grossbritannien und seine Colonien in der Pariser Ausstellung benutzten, 183,000 Quadratfuss, wovon 14,184 Quadratfuss auf die drei Klassen schöner Künste kommen.

Obgleich der wirklich von jedem Lande benutzte Raum in der Abtheilung für schöne Künste in dem Berichte der kaiserlichen Commission nicht angegeben ist, so erscheint doch in demselben die Anzahl der bezüglichen Aussteller.

In dem Berichte, welcher dem Parlamente über die Britische Abtheilung der Ausstellung vorgelegt wurde, erscheint die Anzahl der Englischen Künstler und deren Werke wie folgt:—

Oelgemälde . . .	234	von 99	Künstler
Wasserfarbengemälde . . .	145	„ 52	„
Kupferstiche und Lithographien . . .	197	„ 62	„
Architectonische Zeichnungen u. s. . .	127	„ 51	„
Statuen . . .	51		
Büsten und Basreliefs . . .	24	„ 35	„
Summa . . .	778	299	

Der Schätzwurth der gesandten Britischen Kunstwerke belief sich auf:—

Oelgemälde . . .	£ 96,130
Wasserfarbengemälde . . .	15,653
Kupferstiche und Lithographien . . .	1,676
Architectonische Werke . . .	5,765
Bildhauer-Arbeiten . . .	18,336
Summa . . .	£137,560

Dies ergibt einen Durchschnittswurth von 411% für Oelgemälde, ungefähr 108% für Gemälde in Wasserfarben und beiläufig 244% für Bildhauerwerke.

Aus selbstverständlichen Gründen sind von dieser Schätzung Kupferstiche, Lithographien und architectonische Arbeiten ausgeschlossen.

Ausser den obigen statistischen Angaben möchte es wohl von Interesse sein zu erfahren, wie viel verticale Oberfläche und horizontales Mass von allen sieben und zwanzig Industrieklassen in der Pariser Ausstellung benöthigt wurden. Diese Angaben sind dem Berichte der kaiserlichen Commission entnommen.

	Flächen-mass Metres	Verticale oder Wandfläche Quadratmetres
Frankreich, Algier und Colonien . . .	18,949	33,421
Oestreich . . .	2,335	3,512
Belgien . . .	1,509	2,350
Grossbritannien und Colonien . . .	4,404	6,373

	Flächen- mass Metres	Verticale oder Wandfläche Quadratmetres
Preussen . . .	1,828	2,796
Schweden . . .	464	442
Schweiz . . .	409	584
Sonstige Länder . . .	3,871	4,131
Summa	33,769	53,609

5 Sächsische Herzogthümer	23
Tunis	1
Türkei	2
	153
Summa	21,779

ZAHLE DER AUSSTELLER.

Die Gesamtzahl derselben bei der Pariser allgemeinen Ausstellung in 1855 betrug 23,954. Hiervon kommen 21,779 auf die sieben und zwanzig Industrieklassen und 2,175 auf die drei Klassen schöner Künstler.

Je nach den verschiedenen Ländern vertheilten sich die industriellen Aussteller wie folgt:—

Frankreich	10,003
Algier	728
Französische Colonien	183
	10,914
Amerika (Vereinigte Staaten)	131
Amerika (Süd-)	38
Oestreich	1,293
Baden	88
Baiern	172
Belgien	687
Dänemark	90
Spanien	569
Grossbritannien	1,589
Canada	348
Australien und Vandiemens- land	405
Indien	599
Britisch-Guiana	95
Kleinere Colonien	233
	3,269
Griechenland	131
Hessen	88
Kirchenstaat	72
Mexico	107
Nassau	59
Norwegen	121
Niederlande	411
Portugal	443
Preussen	1,319
Sardinien	204
Sachsen	96
Schweden	418
Schweiz	408
Toscana	197
Hansestädte	89
Württemberg	207

Sonstige Länder, als:—

Anhalt-Dessau und Cöthen	15
Braunschweig	16
Deutscher Bund	20
Egypten	6
Frankfurt am Main	24
Hannover	18
Hawaii	5
Luxemburg	23

Die Zahl der von jedem Lande ausstellenden Künstler ist bereits angegeben.

Drei und fünfzig fremde Staaten und zwei und zwanzig fremde Colonien waren in der Ausstellung vertreten, Frankreich, die drei Provinzen in Alger und acht Französische Colonien nicht gerechnet.

Theilt man die Aussteller jeder Klasse in Französische und fremde, so ergibt sich folgendes Resultat:—

Französisches Kaiserreich	11,986
Fremde Staaten	11,968
Summa	23,954

Diese beiden so ausserordentlich annähernden Zahlen können als ein sehr aussergewöhnliches Ereigniss betrachtet werden.

KOSTEN DER AUSSTELLUNG.

Nach Angabe der kaiserlichen Commission beliefen sich die Kosten der Pariser allgemeinen Ausstellung auf:—

	Francs	Sterling
Industrielle Ab- theilung	8,961,620	= £358,464 16s.
Schöne Künste	2,302,900	= £92,116 0s.
Summa	11,264,520	= £450,580 16s.

Diese Summe begreift in sich nicht die Kosten des Hauptgebäudes, oder 'Palais de l'Industrie,' welches später durch die Französische Regierung erworben wurde; man muss daher die Gesamtunkosten der Ausstellung auf ungefähr das Doppelte annehmen, und dieselben belaufen sich aller Wahrscheinlichkeit nach auf nahe eine Million Pfund Sterling.

Nimmt man daher die Kosten für das 'Palais de l'Industrie' zu 500,000/. und die der anderen Gebäude, wie im Berichte der kaiserlichen Commission aufgeführt, an, nämlich:—

Annexe	£ 104,080
Verbindungsgallerie des Circus	24,280
Kunstpalast	42,068
Sonstige Baulichkeiten	4,232

so wird man ziemlich mit Richtigkeit die Kosten der Gebäude mit 674,000/. veranschlagen können.

Nimmt man nun den Gesamtflächenraum auf 169,691 Quadratmetres, oder ungefähr 1,866,000 Quadratfuss, an, und die Gesamtkosten der Gebäude, ohne das 'Palais de

l'Industrie,' wie oben angeführt, so ergibt sich so nahe wie möglich eine Auslage von 7s. 3d. per Quadratfuss.

Um die passende und erfolgreiche Vertretung Grossbritanniens in der Pariser allgemeinen Ausstellung von 1855 zu sichern, war es erforderlich, dass die Britische Regierung die nöthige Hülfe leistete.

Es wurden deshalb Kostenanschläge entworfen und dem Parlamente vorgelegt, welches eine Summe von 50,000*l.* hierzubewilligte, deren Verwendung der Obhut des Handels-Ministeriums anvertraut ward.

Hiervon wurden wirklich nur 39,259*l.* verausgabte, mehr als 10,000*l.* weniger als die vom Parlament bewilligte Summe, was ein Beweis der befolgten Sparsamkeit und Umsicht ist.

Die so verausgabten Summen vertheilen sich in:—

	£
Vorbereitungsauslagen	3,171
Fracht- und Mauth-Spesen u. s. w.	7,588
Bureau-Auslagen in Paris	3,282
Vollendung und Verzierung der Britischen Abtheilung	3,985
Unterhaltungs-, Reinigungs- u. s. w.	3,446
Unkosten	
Fortschaffung und Lagerung der Packkisten	943
Druck-, Anzeige-, Porto- und Schreibmaterialien-Unkosten u. s. w.	1,383
Auslagen zur Sicherung der Ausstellung der Rohproducte und wissenschaftlicher Apparate	2,067
Abtheilung für schöne Künste	6,477
Preisrichter und deren Berichte	4,165
Verschiedene Ausgaben	2,752
Summa	£39,259

Eine Hauptausgabe für die Britische Abtheilung der schönen Künste verursachte die Versicherung der gelieferten Werke gegen alle auf der Eisenbahn und zur See, auf der Hin- und Rückreise, und gleichfalls gegen Feuer im Palaste und auf der Reise. Die Prämien stellten sich zwischen 2*l.* 10s. und 8*l.* Procent, und den Versicherern auf Lloyds und anderwärts wurden 2,715*l.* bezahlt.

ZULASSUNG VON BESUCHERN.

Der Kaiser eröffnete in eigener Person die Pariser allgemeine Ausstellung von 1855 dem Publicum am Dienstag dem 15. Mai. Damals befanden sich die Einrichtungen noch so mangelhaft und verspätet, dass nur der Kunstpalast und ein Theil der industriellen Ausstellung besucht werden konnten. Der Anbau für Maschinen und der Panorama-Circus, so wie sonstige Gebäude, wurden erst viel später geöffnet.* Ursprünglich war es beabsichtigt, die

Ausstellung, laut einem veröffentlichten kaiserlichen Decret, am 1. Mai zu eröffnen; ein Aufschub musste aber stattfinden, denn Alles befand sich noch zu sehr im Rückstand.

Der Schluss ging in Gegenwart des Kaisers mit grosser Feier und Pünktlichkeit am 15. November vor sich. Freitag den 30. November wurde die Ausstellung endgültig geschlossen, obgleich die Wegschaffung der Gegenstände Tags nach der Schlussfeierlichkeit begonnen hatte, und täglich ohne Unterbrechung fortgesetzt worden war.

Die Zeit, während welcher die Ausstellung geöffnet blieb, nämlich vom 15. Mai bis 30. November (inclusive), erstreckte sich auf genau 200 Tage, Sonntage mit gerechnet.

Der Zutritt war durch Subscriptions-Billete und Bezahlung an den Thüren ermöglicht. An einem Tage, Sonntag den 27. Mai, wurde die ganze Ausstellung dem Publicum gratis geöffnet.

Subscriptions-Billete kosteten 50 Fr. (2*l.*) für die Industrie- und ebensoviel für die Kunstausstellung, was für die Ausstellung in ihrer Gesamtheit 100 Fr., oder 4*l.*, ausmachte. Es wurden jedoch Subscriptions-Billete mit beschränkten Vorrechten zu 25 Fr. (1*l.*) ausgegeben. Die Eintrittspreise an den Thoren waren 5 Fr. (4*s.*); 2 Fr. (1*s.* 8*d.*); 1 Fr. (10*d.*), und 20 Cent. (2*d.*). An Montagen, Dienstagen, Mittwochen, Donnerstagen und Sonnabenden hatte man 1 Fr., an Freitagen 5 Fr. und an Sonntagen 20 Cent. zu bezahlen.

Das Gleiche galt für den Kunstpalast. Nach dem 1. August wurde der Eintrittspreis an Freitagen auf 2 Fr. ermässigt, und nach dem 11. August erhielten die Eisenbahn- und andere Gesellschaften die Erlaubniss, specielle Züge fahren zu lassen, in welchen die Passagiere nicht nur 40 Procent billiger als gewöhnlich reisten, sondern auch noch freien Zutritt zu dem Industrie- und Kunstpalast genossen, oder statt dessen zweimal ein und denselben Palast gratis besuchen durften. Gleichfalls wurden während des Monats August bedeutende Massen von Arbeitern von allen Theilen Frankreichs für 20 Cent. zugelassen.

Alle Soldaten und Militair-Invaliden hatten täglich, während der Stunden von 9 bis 11 Uhr, das Recht freien Zutrittes.

Die Zöglinge der Militairschulen genossen ebenfalls, mit wenigen und gelinden Beschränkungen, freien Zutritt; Mitglieder der Französischen und fremden Presse hatten dieselben Vergünstigungen.

Am Tage der Eröffnungsfeierlichkeiten ermöglichten nur Subscriptions-Billete den Zutritt; dasselbe galt für den 24. August, an welchem Tage die Königin Victoria die Ausstellung besuchte.

EINNAHMEN.

Die Gesamteinnahmen beliefen sich auf 3,202,485 Fr., oder 128,099*l.* Sterling.

4,843 Subscriptions-Billete fanden Abnehmer; hiervon 4,663 für den Industrie- und 180

* Ackerbangeräthe, 5. Juni; Annexe, 10. Juni; Panorama-Circus, 30. Juni.

für den Kunstpalast; der Gesamterlös hieraus war 200,450 Fr., oder 8,018/ Sterling.

Nach Abzug des Eröffnungstages, an welchem nur Subscriptions-Billete Zutritt hatten, und ferner jenen, an welchem die Ausstellung gratis offen stand, berechneten sich die durchschnittlichen täglichen Einnahmen auf 16,174 Fr., oder 646/ 19s. 2d.

Die Einnahmen in dem Industriepalast beliefen sich auf 2,566,195 Fr. (102,647/ 16s.) und jene im Kunstpalast auf 636,290 Fr. (25,451/ 12s.), oder durchschnittlich per Tag in Ersterem 12,960 Fr. (518/ 8s.) und im Letztern 3,213 Fr. 50 Cent. (128/ 10s. 5d.).

ANZAHL DER BESUCHER.

Die Gesamtzahl der Besucher der Pariser allgemeinen Ausstellung von 1855 belief sich auf 5,162,330. Hiervon kommen 4,180,117 auf den Industriepalast und Anbauten, und 982,213 auf den Kunstpalast. In den für den Kunstpalast angegebenen Zahlen sind 46,612 Personen eingeschlossen, welche die schon früher erwähnte Chinesische Ausstellung besuchten.

Man schätzt, dass im Ganzen Inhaber von Subscriptions-Billetes die Ausstellung 94,000 Mal den Industrie- und 3,800 Mal den Kunstpalast besuchten. An allen Fünf franktagen zählte man 22,747 Besucher im Industrie- und 11,179 im Kunstpalast, zusammen 33,926; an allen Zweifranktagen 73,816 im Industrie-, 21,872 im Kunstpalast, im Ganzen 95,688. An den Tagen zu 1 Fr. stellten sich 2,103,535 Besucher ein, wovon 1,683,798 im Industriepalast und 419,737 in jenem für schöne Künste kommen.

Auf den niedrigsten Eintrittspreis, 20 Cent. (2d.) zählte man 2,196,795 Personen, davon betraten 1,752,518 den Industrie- und 444,277 den Kunstpalast.

Hierzu sollte man 26,322 Personen rechnen, welche die Chinesische Sammlung besichtigten, wenn selbe an gewissen Tagen zu 50 Cent. geöffnet war.

Die muthmassliche Anzahl, welche mit Ausstellerkarten Zutritt fand, belief sich auf 445,000, wovon 420,000 auf den Industrie- und 25,000 auf den Kunstpalast kommen.

Die Anzahl der Soldaten und Invaliden, welche von der Erlaubniss des freien Besuches zwischen 9 und 11 Uhr Gebrauch machten, betrug 80,118; jene der Militair-Zöglinge, mit freiem Besuche, 797, und der an Montagen und Dienstagen mit Specialzügen Angekommenen 24,455. Es wird bemerkt, dass diese Zahlen nur annähernd die Besuche der Personen der verschiedenen Categorien, nicht aber jeden einzelnen persönlichen Besuch, vorstellen. So z. B., wenn ein Invalide zehn Mal die Ausstellung besuchte, so wurde er natürlich für 10 Personen angenommen.

Am Sonntage, 27. Mai, als die Ausstellung

dem Publicum zum freien Besuche geöffnet war, zeigte die Totalanzahl der Besucher 105,022 Personen, wovon 80,118 den Industrie- und 24,904 den Kunstpalast in Augenschein nahmen.

Der grösste Andrang an irgend einem Tage während der Ausstellung fand am Sonntage dem 9. September statt, wo 123,017 Personen anwesend waren.

Grosse Massen stellten sich an jedem der 24 Sonntage zwischen dem 3. Juni und 11. November ein, und zwar so, dass die durchschnittliche Anzahl 89,223 für jeden Sonntag betrug. An acht von diesen Sonntagen wurde sogar die Zahl 100,000 bedeutend überschritten.

Es sollen während der Ausstellung 160,000 Fremde Paris besucht haben, davon mehr als 40,000 Britische Unterthanen, oder mehr als zwei Drittel der Gesamtzahl aller Fremden, welche London im Ausstellungsjahre 1851 besuchten. Nach den Berichten der Französischen Polizeibehörden sandten die verschiedenen Departments Frankreichs mehr als 350,000 Besucher zur Pariser Ausstellung von 1855.

PREISRICHTER.

Die zur Pariser Ausstellung gesandten Gegenstände wurden wie folgt classificirt:—

Klasse

1. Bergbau- und metallurgische Producte.
2. Erzeugnisse des Waldes, der Jagd und Fischerei, ohne Pflege und Bearbeitung gewonnen.
3. Ackerbau.
4. Maschinen im allgemeinen, zu Industriezwecken.
5. Specielle Maschinerien und Apparate für Eisenbahnen und sonstige Transportwege.
6. Specielle Maschinen und Apparate, in Arbeitslocalen verwendet.
7. Specielle Maschinen und Apparate zum Weben.
8. Künste, mit Bezug auf Wissenschaft und Unterricht.
9. Erzeugnisse und Maschinen, welche Hitze, Licht und Electricität billig erzeugen und verwenden lassen.
10. Chemische Präparate, Färberei und Druckerei, Papier, Leder, Felle, Caoutchouc u. s. w.
11. Zubereitung und Aufbewahrung von Nahrungsmitteln.
12. Medicin, Pharmacie, Chirurgie u. s. w.
13. Militairische und nautische Künste.
14. Ingenieur- und Bauwesen.
15. Stahl und dessen Producte.
16. Metallarbeiten im allgemeinen.
17. Gold- und Juwelier-Arbeiten, Bronze.
18. Glas- und Töpferwaaren.
19. Baumwollstoffe.
20. Wollen- und Halbwollenstoffe.
21. Seidenwaaren.

22. Flachs- und Hanfgewebe.
23. Strumpfwirkerei, Teppiche, Stickereien, Spitzen, Gold- und Silberfrangen u. s. w.
24. Möbel und Decoration.
25. Kleidungsstoffe; Modeartikel.
26. Zeichnungen und Modelle für industrielle Zwecke, Kupfer- und Stahlstich, Photographie.
27. Musikalische Instrumente.
28. Gemälde, Stahlstiche und Steindruck.
29. Bildhauerei und Schnitzarbeiten.
30. Architectur.

Diese drei letzten Klassen bildeten die Abtheilung der schönen Künste.

Eine weitere Klasse wurde nach Eröffnung der Ausstellung hinzugefügt, nämlich Klasse 31, Erzeugnisse zur Beförderung von häuslicher Bequemlichkeit und Ersparniss, hauptsächlich aus Gegenständen bestehend, welche den anderen Klassen entnommen wurden.

PREISE.

Durch ein kaiserliches Decret vom 10. Mai 1855 wurden folgende Belohnungen zur Ertheilung durch die Preisrichter für die Ausstellung festgestellt:—

Für die 27 industriellen Klassen.

1. Goldmedaille ('Médaille d'Honneur').
2. Silbermedaille.
3. Bronzemedaille.
4. Ehrendiplom.

Für schöne Künste.

1. Goldmedaille 1. Klasse.
2. Goldmedaille 2. Klasse.
3. Goldmedaille 3. Klasse.
4. Ehrendiplom.

Und ausserdem die Zuthheilung der grossen Goldmedaille.

Geldgeschenke wurden ebenfalls in besonderen Fällen zuerkannt.

Der Kaiser verlieh zahlreiche Ehrenlegions-Orden an Aussteller, was als eine weitere Belohnung und Anerkennung betrachtet werden muss.

Nach Angabe der kaiserlichen Commission war Folgendes der Werth der verschiedenen Goldmedaillen:

Die grosse Ehrenmedaille aus Gold, 5,000 Fr. (200%); Goldmedaille 1. Klasse, 750 Fr. (30%); ditto 2. Klasse, 650 Fr. (26%); ditto 3. Klasse, 550 Fr. (22%).

Durch ein späteres Decret wurde die Benennung der Ehrenmedaillen für die industrielle Abtheilung wie folgt abgeändert, nämlich:—

Die grosse Goldmedaille wurde die grosse Ehrenmedaille, die Silbermedaille die Medaille 1. Klasse und die Bronzemedaille die Medaille 2. Klasse genannt.

Es wurde von der kaiserlichen Commission keine tabellarische Uebersicht der Anzahl der in jeder Klasse und an jedes Land vertheilten Medaillen veröffentlicht. Diesen Mangel ersetzt aber der Bericht der Preisrichter; hiervon kann aber hier kein Gebrauch gemacht werden, was zu bedauern ist, denn die statistische Belehrung, welche eine solche Tabelle verschafft haben würde, wäre interessant und wünschenswerth gewesen.

Preise wurden auch an jene Britischen Mitarbeiter und Gehülfen (Colonien inbegriffen) verliehen, welche, obgleich keine Aussteller, doch mit der Erfindung, Erzeugung und Zubereitung von Gegenständen, welche zur Ausstellung kamen, in Verbindung standen.

Der Art wurden eine grosse Ehrenmedaille, 27 Medaillen 1. Klasse, 56 ditto 2. Klasse und 42 Ehrendiplome zuerkannt.

In der Abtheilung der schönen Künste wurden 64 Preise, nämlich: 2 grosse Ehrenmedaillen, 9 Medaillen 1. Klasse, 8 Medaillen 2. Klasse und 11 Medaillen 3. Klasse und 34 Ehrendiplome, an Britische Aussteller vertheilt.

DIE INTERNATIONALE AUSSTELLUNG IM JAHRE 1862.

DIE verschiedenen Gebäude, in welchen die internationale Ausstellung im Jahre 1862 stattfand, wurden auf einem Stücke Land erbaut, welches an die Gärten der Königlichen Gartengesellschaft zu South Kensington stösst, und zu diesem Behufe von den Commissairen der grossen Ausstellung vom Jahre 1851 erworben worden war. Dieser Grund war ein Theil des Besitzthums, welches die königlichen Commissaire durch Kauf aus dem Ueberschusse der Einnahmen in der Ausstellung und von der vom Parlamente bewilligten Summe erworben hatten.

Der Grundcomplex, auf diese Weise in dieser unmittelbaren Nachbarschaft angekauft, bestand aus 86 Acker und die Kauf-

summe hierfür 280,000%, oder durchschnittlich 3,250% per Acker.

Man vermuthete ursprünglich, dass 300,000% hinreichen würden, alles gewünschte Land zu erwerben. Die königlichen Commissaire willigten ein, von ihrem erwähnten Ueberschuss (ungefähr 170,000%) 150,000% dazu zu verwenden, und das Parlament gewährte einen gleichen Betrag, um einen wohlfeilen Landcomplex in der Nähe der Hauptstadt zu sichern, auf dem Unterrichts-Institute für Wissenschaft, Kunst und Gewerbe erbaut werden könnten.

Folgende Grundstücke wurden demnach erworben.

Der Gore-House-Besitz, zu Kensington-Gore, beinahe dem Boden der grossen Ausstellung

von 1851 gegenüber, 21 Acker umfassend, Kostpreis 60,000/. Der De-Villars-Besitz, von den Testamentsvollstreckern des Baron Villars erkauft, Umfang 48 Acker, für 153,000/. An diese zwei Grundstücke grenzten 17 Acker, vom Grafen Harrington, für 66,500/. erworben.

In 1858 hob das Parlament den Vertrag auf, welcher mit den königlichen Commissairen bestand, wodurch der ganze erworbene Grundbesitz Eigenthum der königlichen Commissaire wurde; hiervon blieben jedoch 12 Acker ausgeschlossen, auf welchen durch das Departement der Wissenschaft und Künste das als South-Kensington-Museum bekannte Gebäude, errichtet worden war.

Hierfür bewilligte die Regierung, von den gewährten 150,000/. den Betrag von 60,000/. in Abzug zu bringen, und hatten die Commissaire den erwachsenden Ueberschuss zu erlegen.

Das Hauptgebäude der internationalen Ausstellung von 1862 bedeckte ungefähr 17 Acker, ohne die zwei Flügel, östlich und westlich von den 'Horticultural Gardens' erbaut, welche weitere 7 Acker in Anspruch nahmen, wodurch im Ganzen beinahe 24 Acker benötigt wurden.

Die Form war ein längliches Viereck und mass ungefähr 1,200 Fuss von Osten nach Westen, und 560 Fuss von Norden nach Süden. Die Hauptfäçade war in Cromwell-road; der westliche Eingang in Prince Albert-road und der östliche in Exhibition-road.

Obleich der grössere Theil des in 1862 errichteten Gebäudes dauerhaft erbaut worden war, so ward es dennoch der Wegräumung unterworfen, und der Platz, auf dem es stand, wurde in den ursprünglichen Zustand zurückversetzt. Es wurden grosse Anstrengungen gemacht, das Gebäude, vorzüglich den die Bildergalerie bildenden Flügel, zu erhalten. Aber das Parlament kaufte den Grund von den königlichen Commissairen für öffentliche Zwecke (die Kaufsumme hierfür, 120,000/. wurde am 13. Juni 1863 bewilligt), verweigerte indessen, die Gebäude zu übernehmen, welche daher niedergerissen werden mussten. Der so hergestellte Platz liegt noch unbenutzt, und von der Ausstellung bleibt Nichts übrig, als die Erfrischungshallen und Gallerien über den südlichen Arcaden der Horticultural Gardens.

In Folge einer Uebereinkunft zwischen den Ministerien des Unterrichts und jenem der öffentlichen Bauten benutzt das Erstere den Platz.

Die Pläne für die Gebäude entwarf der verstorbene königliche Ingenieur Hauptmann Fowke, Architect des Kunst- und Wissenschafts-Departement.

Die Bauunternehmer waren die Herren Kelk und Gebrüder Lucas.

AUSDEHNUNG UND UMFANG.

Die Gesamtfläche des bedeckten Raumes betrug 1,291,800 Quadratfuss, wovon 147,700 Quadratfuss auf die Erfrischungshallen,

Bureaux, Eingänge und Treppen kamen; es blieben daher für Ausstellungszwecke 1,144,100 Quadratfuss übrig.

In Vertheilung dieses Raumes befolgten die königlichen Commissaire die nunmehr allgemein anerkannte Regel, dass sie der die Ausstellung veranstaltenden Nation die eine und den fremden Ländern die andere Hälfte anwiesen.

ANZAHL DER AUSSTELLER.

Die Gesamtzahl der Aussteller in der internationalen Ausstellung im Jahre 1862 betrug 28,653, worin 2,305 Künstler, welche in den vier Klassen der schönen Künste vertreten waren, inbegriffen sind.

In den sechs und dreissig industriellen Klassen befanden sich 26,348 Aussteller; davon waren 8,487 Britische (Colonien inbegriffen) und 17,861 Fremde. In der Abtheilung der schönen Künste betrug die Anzahl der vertretenen Britischen Künstler 900 und die der fremden 1,315; die Totalzahl der gelieferten Werke 6,529, wovon 3,651 Britische und 2878 fremde.

AUSLAGEN.

Die Gesamtsumme der Auslagen zur Instandsetzung und Ausführung des Unternehmens kann in runden Zahlen zu 460,000/. angenommen werden.

Ehe man zur Aufzählung der diese Summe bildenden Einzelheiten übergeht, glaubt man anführen zu müssen, dass das getroffene Uebereinkommen mit den Bauunternehmern der Art war, dass sie das Hauptgebäude, mit Inbegriff des Mittelschiffes, für die Gemäldegalerie und den westlichen Anbau nur für 'Gebrauch und Benutzung' herriichten; ausserdem hatte man sich das Recht vorbehalten, zu festgesetzten Bedingungen diese Gebäulichkeiten nach Schluss der Ausstellung ankaufen zu können.

Laut in dem Verträge übereingekommenen Bedingungen hatten die Bauunternehmer 200,000/. unbedingt zu erhalten, und weitere 100,000/. im Falle die Einnahmen eine halbe Million erreichen sollten.

Sollten sie auf diese Weise 300,000/. erhalten, so war der für die Gemäldegalerie erbaute Flügel alleiniges Eigenthum der Ausstellungs-Commissaire.

Es ist ferner zu bemerken, dass, um ein so grossartiges Unternehmen vor allem möglichen Verlust zu schützen, die 'Society of Arts' den königlichen Commissairen die Gründung eines Garantiefonds von nicht weniger als 250,000/. anempfahl. Diese erliessen daher einen Aufruf an das Publicum, welcher alle Erwartungen übertraf, denn es wurden 450,000/. unterzeichnet. Nach dem Wortlaute der Garantie-Urkunde beschränkte sich die Verbindlichkeit eines jeden Unterzeichners

für die möglicher Weise zu erhebende Summe im Verhältnisse zu der von ihm unterschriebenen Summe.

Die Zahl der Unterzeichner betrug 1,152, und die haftbare Summe 250,000*l*.

Die Hauptposten der Ausgaben zerfallen in:—

	£
Bauunternehmer für Gebäude, inclusive 86,833 <i>l</i> . für östlichen Anbau	320,680
Pläne, Architekten	8,323
Strassen	13,359
Polizei	19,436
Versicherung und Feuerwache	4,088
Saläre und Löhne	45,778
Miethe, Abgaben, Möbel, Drucker, Schreibmaterialien, Anzeigen und andere Unkosten	11,749
Unterhaltungskosten, Eröffnungsfeierlichkeiten, Preise, Gas, Feuerungs-Material, Wasser u. s. w.	9,690
Fracht u. s. w. für Gemälde u. s. w.	4,202
Medaillen	6,410
Vorbereitungs- und Rechtskosten	3,668
Vermessungen und allgemeine Vorrichtungen	3,676
Zinsvergütung an die Bank von England für Darlehen, abzüglich eingenommener Zinsen	7,331
Verschiedene Auslagen	1,247
Summa	£459,637

Veranschlagt man die Kosten der Ausstellungsgebäude auf 321,000*l*. und den bedeckten Raum auf 1,292,400 Quadratfuss, so ergiebt sich die Herstellungsauslage auf beinahe 5*s*. per Quadratfuss.

ZULASSUNG VON BESUCHERN.

Die internationale Ausstellung im Jahre 1862 war dem Publicum am Donnerstag, 1. Mai, geöffnet und geschlossen am Sonnabend, 13. November, was die Dauer der Ausstellung auf 171 Tage bringt.

Die Bedingungen, unter welchen der Besuch stattfinden konnte, waren:—

1. Mit Abonnements-Bileten;
2. Durch Bezahlung an den Thüren.

Am Eröffnungstage konnte man nur mit Abonnements-Bileten Zutritt erlangen. Die folgenden zwei Tage kostete der Eintritt 1*l*.; vom 5. bis 17. Mai (inclusive) 5*s*.; vom 19. Mai bis 31. Mai (inclusive) 2*s*. 6*d*., Sonnabend jeder Woche ausgenommen, wo der Eintrittspreis auf 5*s*. erhöht wurde. Vom 2. bis 14. Juni (inclusive) war der Preis auf 1*s*. für die ersten vier Tage der Woche, auf 2*s*. 6*d*. an Freitagen und 5*s*. an Sonnabenden festgestellt; vom 16. Juni bis 1. November (inclusive) bezahlte man 1*s*. während der ersten vier Tage und 2*s*. 6*d*. an Freitagen und

Sonnabenden jeder Woche. Ausgenommen war hiervon der 11. Juli (an welchem Tage die Preisrichter die Preise zuerkannten und man 10*s*. Eintrittsgeld zu erlegen hatte. Vom 3. bis 15. November (inclusive) kostete der Eintritt jeden Tag 2*s*. 6*d*.

Die Abonnements-Billete waren zweierlei, nämlich gewöhnliche für drei Guineen und specielle für fünf Guineen.

Diese Letzteren berechtigten die Inhaber zu freiem Eintritt zu den Blumenausstellungen, Festlichkeiten und Promenaden in den Gärten der 'Horticultural Society' während der Dauer der Ausstellung, welcher Gesellschaft ein Theil des für ein solches Billet entrichteten Preises vergütet wurde. Im Monate Juli wurden die Preise für Subscriptions-Billete auf die Hälfte vermindert, so wie Subscriptions-Billete, nur für Schillingstage gültig, zu 10*s*. jedes ausgegeben. Tagsbillete in Bündeln von ein und zwanzig für 20*s*. waren ebenfalls kurz nach Eröffnung der Ausstellung zu bekommen.

EINNAHMEN.

Die Totalcinnahmen von allen Quellen beliefen sich, wie folgt, auf:—

	£	s.	d.
Abonnements-Billete	79,672	1	3
An den Thüren erhoben	328,858	0	5
Verpachtung der Erfrischungslocale	29,285	4	11
Officielle Cataloge	3,919	1	10
Photographie-Bewilligungen	1,925	0	0
Erlaubniss Perspective zu verleihen	250	0	0
Miethe von der Telegraphen-Compagnie	100	0	0
Regenschirm-Aufbewahrung	2,118	12	10
Toiletten-Zimmer	1,000	0	0
Provision auf Photographien, Münzen etc., im Gebäude verkauft	1,241	9	6
Verschiedene Ausgaben	262	1	5
Beitrag von den Bauunternehmern, laut Vertrag,	11,000	0	0
Summa	£459,631	12	2

Hier folgt Liste der verkauften Subscriptions-Billete:—

	£	s.	d.
Zu 5 Guineen	5,773	30	8
Zu 3 Guineen	17,719	55	8
Zu 50 <i>s</i>	26	65	0
Zu 30 <i>s</i>	919	1,378	10
Zu 10 <i>s</i> . für einen Tag gültig	3,363	1,681	2
Summa	£89,248	2	0

Abzüglich 8,672*l*. 5*s*. an die 'Horticultural Society,' laut erwähntem Verträge, und 903*l*. 15*s*. 9*d*. Provision an Agenten bezahlt

Summa £79,672 1 3

Der grösste an einem Tage bezahlte Betrag an den Thüren war 2,935*l.* 12*s.* 4*d.* am Montage, 30. October, dem letzten Schillingstage, und der geringste, 241*l.*, am Sonnabend 3. Mai, als der Eintritt 1*l.* per Person kostete. Die tägliche Durchschnittseinnahme während der Dauer der Ausstellung, den Eröffnungstag ausgenommen, an welchem nur Subscriptions-Billete gültig waren, betrug ungefähr 1,934*l.*

Je nach den verschiedenen Ansätzen fanden folgende Einnahmen statt:—

	£	s.	d.
Totaleinnahme von 2 Tagen } zu 20 <i>s.</i>	506	0	0
Totaleinnahme von 1 Tag } zu 10 <i>s.</i>	1,052	8	4
Totaleinnahme von 16 Tagen } zu 5 <i>s.</i>	17,823	8	5
Totaleinnahme von 63 Tagen } zu 2 <i>s.</i> 6 <i>d.</i>	96,066	14	3
Totaleinnahme von 88 Tagen } zu 1 <i>s.</i>	213,409	9	5
178 Tage	£328,858	0	5

Demnach berechnete sich der Durchschnitt der Einnahmen an den Thüren an den Tagen zu 5*s.* 1,114*l.*, zu 2*s.* 6*d.* 1,525*l.* und zu 1*s.* 2,425*l.*

ANZAHL DER BESUCHER.

Die Zahl der Besucher der internationalen Ausstellung in Jahre 1862 belief sich nahezu auf sechs und eine Viertel Million; die officiële Angabe sagt 6,211,103. Der tägliche Durchschnitt war 36,328 und die grösste Anzahl an einem Tage, nämlich 30. October (ein Schillingstag) erreichte 67,891. Am geringsten erscheint die Zahl der Besucher am Mittwoch, 5. November (Eintritt 2*s.* 6*d.*), 5,615; jedoch, da damals eigentlich die Ausstellung vorüber war, so ist es kaum billig, diese Anzahl als die geringste an irgend einem Tage zu betrachten. Es wäre vielmehr weit richtiger, hierfür die geringste Anzahl anzunehmen, welche sich an einem Tage zwischen dem 1. Mai. und 1. November, nämlich 7,367, am Donnerstag dem 15. Mai, einfand.

Obleich Aussteller nach Eröffnung der Ausstellung keinen freien Eintritt genossen, so ward dennoch Persönlichkeiten, deren Anwesenheit nöthig war, jede Erleichterung hierin gewährt.

Die folgenden Zahlen weisen aus, wie viele Personen vermittelst Subscriptions-Billets, Freischeinen und Bezahlung an den Thüren zugelassen wurden:—

Gewöhnliche Subscriptions-Billete	770,704
Subscriptions-Billete, für Schillingstage gültig	58,536
Freischeine an Angestellte, Aussteller und deren Gehülfen	257,246

Billete, an den Thüren verkauft, Tagesbillete und Contremarquen von den 'Horticultural Gardens' } 5,124,617

6,211,103

Die Durchschnittszahl der täglich mit Subscriptions-Billets und Bezahlung an den Thüren je nach dem Tarif Zugelassenen war wie folgt:—

Tägliche Durchschnittszahl:—	
Subscriptions-Billete	4,507
Dergleichen für Schillingstage	829
Zu 5 <i>s.</i> Eintritt	12,352
Zu 2 <i>s.</i> 6 <i>d.</i> Eintritt	19,610
Zu 1 <i>s.</i> Eintritt	44,904

Nach einer officiellen Nachweisung, die Zahl der an denselben Tagen jeder folgenden Woche Besuchenden enthaltend, geht hervor, dass an

Montagen deren Zahl betrug	1,240,615
Dienstagen „ „	1,286,213
Mittwochen „ „	1,203,658
Donnerstagen „ „	1,270,388
Freitagen „ „	641,996
Sonnabenden „ „	568,233

Die Durchschnittsanzahl der Besucher war an Montagen 44,307, Dienstagen 45,936, Mittwochen 43,988, Donnerstagen 44,806, Freitagen 22,138, Sonnabenden 19,594.

Die Gleichförmigkeit der ersten vier Tage jeder Woche ist bemerkenswerth.

Alle mit Freipässen jeder Art Zugelassene sind in den angegebenen statistischen Uebersichten eingeschlossen. Wie viele so privilegierte Personen Zutritt hatten, ist bereits angegeben.

PREISRICHTER.

Die nachfolgende Tabelle zeigt die Anzahl der Preisrichter und Hülfspreisrichter für jede der 36 industriellen Klassen.

Klasse		Preisrichter	Hülfspreisrichter
1	Bergbau, Steinbruch, metallurgische und mineralische Erzeugnisse	16	3
2	Chemische Bestandtheile und Erzeugnisse und pharmaceutische Prozesse	24	3
3	Nahrungsmittel	45	3
4	Thierische und Pflanzentheile, in Manufacturen benutzt	45	6
5	Eisenbahn-Materialien, mit Einschluss von Locomotiven und Wagen	11	—
6	Wagen, nicht mit Eisenbahnen in Beziehung	6	1
7	Maschinen und Werkzeuge	15	3
8	Maschinerie im Allgemeinen	30	2
9	Feld- und Gartenbaumaschinen und Werkzeuge	18	1
10	Instrumente u. s. w. für Ingenieure und Architekten	23	2
11	Militair-Genie-Wesen, Waffen, Kanonen und Gewehre	23	1

Klasse		Preis- richter	Hülf- preis- richter
12	Schiffbau und Ausrüstung . . .	14	3
13	Optische und physikalische Instrumente und deren Ver- wendung	13	4
14	Photographische Apparate, Pho- tographie	5	2
15	Uhren	9	—
16	Musikalische Instrumente . . .	11	—
17	Chirurgische Instrumente . . .	7	4
18	Baumwolle	12	2
19	Flachs und Hanf	9	—
20	Seide und Sammet	11	1
21	Wollene und halbwollene, so wie gemischte Stoffe	16	8
22	Teppiche	6	—
23	Gewebe, gesponnene, gewalkte und sonstige Stoffe, welche als Druck- und Färbemuster dienen	10	1
24	Gobelins, Spitzen und Stickereien	11	1
25	Felle, Pelze, Federn und Haare .	11	2
26	Leder-, Sattler- und Geschirrar- beiten	15	1
27	Kleidungsstoffe	24	1
28	Papier und Schreibmaterialien, Buchdruck und Buchbinderei	24	1
29	Erziehungs-Material und Ein- richtungen	21	5
30	Möbel und Tapezirer-Arbeiten, mit Einschluss von Tapeten und Papier-mâché	19	—
31	Eisen- und Metallwaaren . . .	24	3
32	Stahlwaaren, Messer und Schneidewerkzeuge	13	—
33	Arbeiten in Gold und Nach- ahmungen davon, Juwelierar- beiten	12	1
34	Glaswaaren	13	2
35	Töpferwaaren	9	—
36	Toiletten- und Reisegegenstände	7	1
	Summa	582	68

Mit obigen Preisrichtern sind 15 einbe-
griffen, welche besonders für Feuerspritzen in
Klasse 8 ernannt wurden.

PREISE.

In den bei der internationalen Ausstellung
im Jahre 1862 verliehenen Medaillen bestan-
den keine verschiedenen Klassen, sondern nur
eine und dieselbe.

Medaillen wurden von den Preisrichtern zu-
erkannt. Ausserdem wurden Ehrendiplome
verliehen.

Die Totalanzahl der vertheilten Medaillen
war 8,141 und die der Diplome 5,282.

Hiervon kamen 2,382 Medaillen und 1,697
Diplome auf England und Colonien; 5,759
Medaillen und 3,585 Diplome fielen fremden
Ausstellern zu.

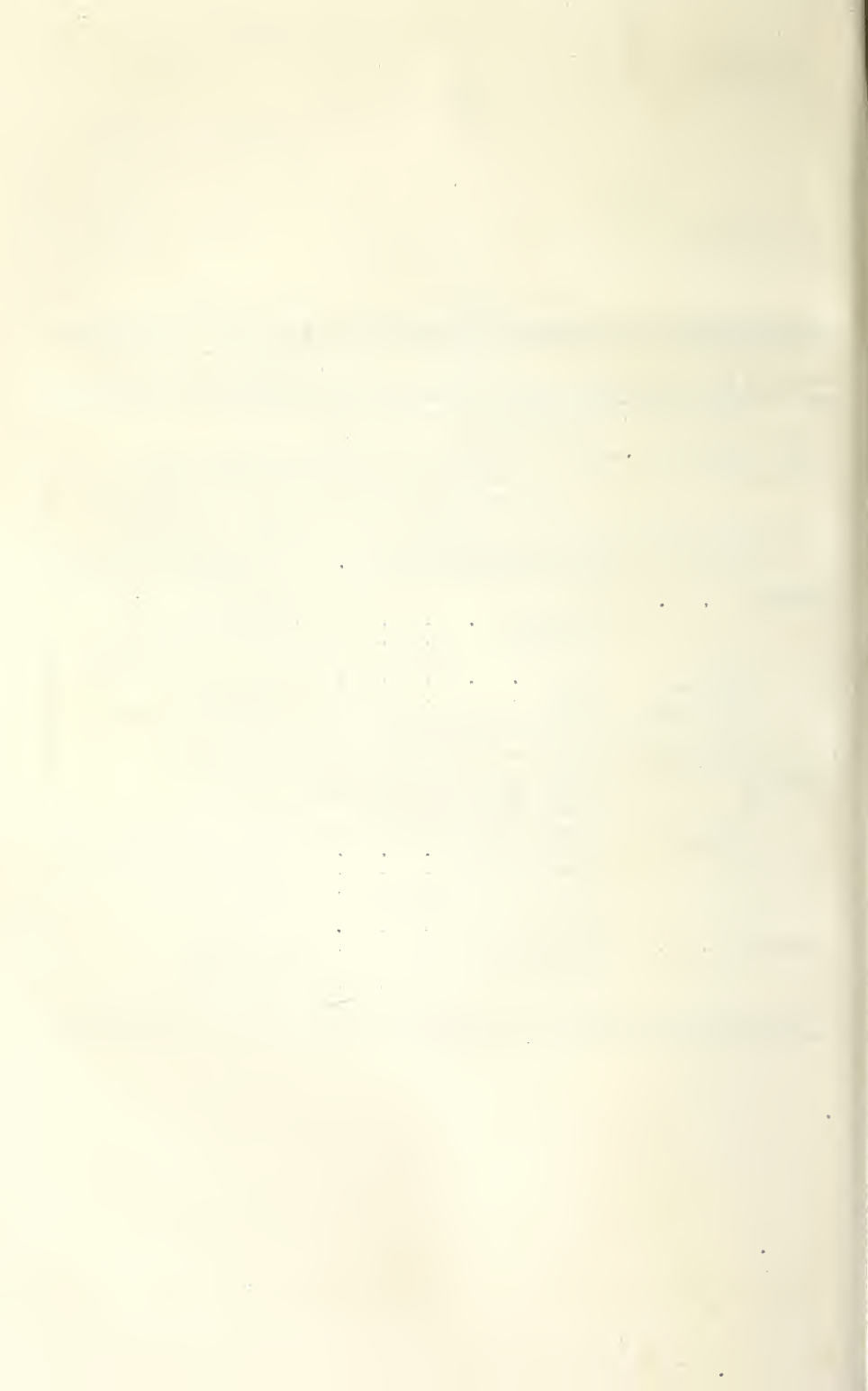
Die vier Klassen, in welche die schönen
Künste zerfielen, erhielten keine Preise.

TABELLE DER ENGLISCHEN MÜNZEN, MAASSE UND GEWICHTE,

DEREN MAN SICH IN DEN STATISTISCHEN BEMERKUNGEN ÜBER DIE INDUSTRIE UND DEN HANDEL DES VEREINIGTEN KÖNIGREICHS BEDIENT HAT, UND DER EQUIVALENTE DERSELBEN IN DEUTSCHEN MÜNZEN, MAASSEN UND GEWICHTEN.

		MÜNZEN, MAASSE UND GEWICHTE	
		ENGLISCHE	DEUTSCHE *
MÜNZEN	{	Pound Sterling (<i>l.</i> oder <i>£</i>) . . .	6 Thlr. 20 Sgr. 13 Fl. Oestr., oder etwa 11 Fl. 45 Kr. Rhein.
		Shilling (<i>s.</i>)	10 Sgr. oder 28 Kr.
		Penny (<i>d.</i>)	10 Pf., etwa 2½ Kr.
MAASSE	{	Yard	3 Fuss oder 36 Zoll
		Mile	5,280 Fuss
	{	Acre	14,520 Quadratfuss
		Load, Last von Bauholz . . .	40 Cubikfuss
	{	Load, Last von gespaltenem Bauholz . . .	50 Cubikfuss
		Gallon, imperial (10 Pfund distillirtes Wasser enthaltend) . .	4 Quart
	{	Bushel, Hohlmaass für trockene Gegenstände	31·7 Preussische Quart enthaltend
		Quarter, von Korn	8 Buschel, das Engl. Malter
		Barrel, von Bier (Stückfass) . . .	36 ⁶ / ₁₀ Gallonen
GEWICHTE	{	Ounce, (oz.)	2 Loth
		Pound (lb.), 16 Unzen	von 32 Loth
		Centner (cwt.)	112 Pfund
		Ton	2,240 Pfund

* Bei der grossen Verschiedenheit der in Deutschland bestehenden Münz-, Maass- und Gewichtsberechnungen ist es unmöglich, hier eine vollständige Tabelle zu geben.



ALLGEMEINE EINLEITUNG.

DIE vorliegende statistische Uebersicht über das Vereinigte Königreich wurde unternommen in Uebereinstimmung mit einem Wunsche, welchen die kaiserlich Französisch Commission für die allgemeine Ausstellung des Jahres 1867 den Commissairen Ihrer Majestät in einem Briefe vom 15. September 1866 aussprach, worin um sehr ausführliche Nachweise über Landesgebiet, Bevölkerung, Production, fremden und einheimischen Handel, die Handelsflotte, die Armee, die Kriegsflotte, die Finanzen etc. gebeten wurde.

**LANDESGEBIET. — Geographische Lage —
Meere—Gebirge—Flüsse—Oberfläche des
Landes—Clima.**

(a.) *Geographische Lage.*—Das Vereinigte Königreich, welches England und Wales, Schottland, Irland, die Insel Man und die Normannischen Inseln in sich schliesst, liegt im Nordwesten des Europäischen Festlandes, zwischen 50° und 58° 41' nördlicher Breite und 1° 46' östlicher und 10° 26' westlicher Länge.

(b.) *Meere.*—Das Königreich wird im Norden und Westen von dem Atlantischen Ocean, im Süden von dem Englischen Canal und im Osten von der Nordsee begrenzt. Irland ist von Grossbritannien getrennt durch die Irische See. Die Seeküste des Landes ist daher, im Verhältniss zu seiner Grösse, von beträchtlicher Ausdehnung.

(c.) *Gebirge.*—Obgleich die Berge des Vereinigten Königreichs, im Vergleich mit denen der festländischen Staaten Europas, eine sehr geringe Höhe erreichen, hat das Land doch mehrere Bergketten. In England sind die vier Hauptketten: 1. die Penninische, welche sich südlich von den Cheviots, an der Grenze von Schottland, bis in die Nähe von Derby erstreckt und deren höchste Gipfel unter 3,000' sind; 2. die Cumbrische Bergkette, welche grösstentheils in Cumberland und Westmoreland liegt und einige der höchsten Berge in England enthält, wie z. B. den Hevellyn, 3,055', den Scafell, 3,166', und den Skiddaw, 3,022'; 3. die Cambrische Kette, welche beinahe ganz Wales ausfüllt, und deren höchster Punkt sich in dem Snowdon 3,571' erhebt; und 4. die Devonische Kette, welche

sich durch die Grafschaften Somerset, Devon und Cornwall ansieht und deren höchste Gipfel nicht über 1,800' emporragen.

In Schottland ist die Hauptbergkette die der Grampians. Der höchste Berg in Schottland, und auch in Grossbritannien, ist der Ben Nevis, welcher sich 4,406' über die Meeresfläche erhebt. Die Cheviot-Berge liegen theils in Schottland und theils in England und dehnen sich durch einen weiten Landstrich aus.

In Irland sind die Hauptbergketten die von Mourne und Wicklow. Der höchste Punkt des Landes, der Carran Tual, liegt in der Grafschaft Kerry und erreicht eine Erhebung von 3,414'.

(d.) *Flüsse.*—Der wichtigste Fluss in England, obgleich nicht der längste, ist die Themse, an welcher die Hauptstadt liegt. Sie entspringt in den Hügeln von Gloucestershire und fliesst unter dem Namen der Isis, bis sie sich mit der Thame vereinigt. Dann nimmt sie ihren gewöhnlichen Namen Themse an, strömt hauptsächlich in östlicher Richtung und ergiesst sich in die Nordsee, nach einem Laufe von beinahe 215 Meilen.

Die andern wichtigen Flüsse von England sind die Severn, die sich nach einem Lauf von 240 Meilen in den Canal von Bristol ergiesst, die Trent, Tyne, Wear, Tees, Ouse, Humber, Mersey, Dee, Wye, Medway und Avon. Viele der hauptsächlichsten Häfen des Landes sind an den Ufern dieser Flüsse gelegen, wie z. B. Newcastle und Shields an der Tyne, Hartlepool, Stockton und Middlesbrough an der Tees, Hull an der Humber, Bristol an der Avon und Liverpool an der Mersey.

Die Hauptflüsse Schottlands sind die Tweed, Forth, Tay, Spey und Clyde. Leith liegt an der Forth, Dumdee an der Tay und Greenock und Port Glasgow an der Clyde.

Die Hauptflüsse von Irland sind die Shannon, mit einem Laufe von 159 Meilen, die Suir, Barrow, Slaney, Boyne, Bandon, Bann und Liffey.

(e.) *Oberfläche des Landes.*—Wenige Länder bieten eine grössere Mannigfaltigkeit der Oberfläche dar als England, und wegen der Milde des Klimas und genügender Regenmenge ist der Boden ausnehmend fruchtbar und wunderbar geeignet sowohl für den Anbau von

Korn und Wurzelsaaten als für Weideland. Mit Ausschluss von Mooren und Hügelweiden waren im Jahre 1866 zwei Drittel des gesammten Flächeninhalts des Landes im Anbau begriffen. Wales und Schottland sind bergiger als England, und mit Ausschluss der Hügelweiden wurde, während des eben erwähnten Jahres, nur etwa die Hälfte des gesammten Flächeninhalts von Wales und ein Fünftel von Schottland angebaut. Irland ist ein verhältnissmässig ebenes Land und enthält eine grosse Masse von Sumpfland; aber obgleich es nicht so gut wie andere Theile des Königreichs zu der Hervorbringung von Korn geeignet ist, hat es bei seinem feuchten Klima sehr umfangreiche Wiesenländer und Hügelweiden. Ungefähr die Hälfte des gesammten Flächeninhalts des Landes, mit Einschluss der Hügelweiden, wurde im Jahre 1866 als permanentes Weideland benutzt.

(f.) *Clima*.—Das Clima von England ist gleichförmiger und milder, obschon, innerhalb gewisser Grenzen, auch feuchter und veränderlicher als das irgend eines in derselben Entfernung vom Aequator gelegenen Landes. Wegen der Lage Englands wird sein Clima beeinflusst durch die warmen Strömungen des

Atlantischen Oceans im Südwesten und Westen und durch die von gewaltigen Eisfeldern ausgeströmte Kälte im Norden; durch die vom Atlantischen Ocean aufsteigenden Dünste auf der einen Seite und durch die verhältnissmässig trockene Luft des Festlands auf der andern. Diese und ähnliche Ursachen genügen, die beständigen Wechsel zu erklären, welche in der Temperatur stattfinden.

In Schottland herrscht eine kältere Temperatur als in England; aber wegen der zahlreichen Golfe und Meeresarme, welche die Küste durchschneiden, sind die Gegensätze nicht so gross, als man bei der nördlichen Lage des Landes erwarten möchte.

Das Clima von Irland ist milder und feuchter als das von England und Schottland und günstiger für Viehweiden als für Kornfelder. Pflanzen, welche in England künstliche Hitze erfordern, wachsen in Irland in freier Luft.

Die nachstehende, nach den Berichten des Professor Airy, des Königlichen Astronomen, entworfene Tabelle, zeigt die *Extreme* der Temperatur und der Regenmenge in den drei Provinzen des Königreichs, während der letzten fünf und zwanzig Jahre.

Wechsel der Jahrestemperatur und der Regenmenge (soweit dieselben beobachtet wurden) während der fünf und zwanzig Jahre von 1841 bis 1865.

Stationen	Breite	Länge	Höhe der Station über der Meeresfläche	Mittlere Jahres-Temperatur		Mittlere jährliche Regenmenge	
				Niedrigste	Höchste	Grösste	Kleinste
In England und Wales:			Fuss			Zoll	Zoll
Bedford	52 8	0 23	100	52·2	47·3	32·6	16·8
Clifton, bei Bristol	51 28	2 38	228	50·2	46·5	40·8	23·7
Greenwich	51 28	—	159	51·3	47	34·2	16·9
Guernsey	49 33	2 40	204	52·1	47·8	49·1	25·6
Helston	50 7	5 18	106	53·9	48·8	46·6	28·6
Lampeter	52 7	4 5	420	50·1	46	55·3	32·2
Newport	50 42	1 17	20	51·4	47·7	47·6	20·5
Nottingham	52 57	1 10	174	49·9	46·3	36·5	17·5
Oldham	—	—	500	—	—	44·1	18·7
Oxford	51 46	1 16	234	50·6	46·2	35·4	14·9
Seathwaite (Borrowdale)	—	—	368	48·9	46·6	182·6	117·5
Whitehaven	—	—	20	50·9	48·7	56	34·7
In Schottland:							
Aberdeen	57 9	2 5	90	—	—	43·8	16·5
Applegarth	—	—	180	—	—	42·5	25·6
Carbeth	56 0	4 22	505	—	—	51·5	30·5
Dhune	—	—	—	—	—	54·4	28·7
Dumfries	55 4	3 36	61	52·9	50	46·9	27·8
Edinburg	55 58	3 8	{ 307 *372 }	51·3	47·9	23·7	14·4
Glasgow	55 53	4 17	{ 110 *166 }	52·6	49·9	37·2	22·3
Glengyle (Loch Katrine)	—	—	380	—	—	112·5	65·5
Haddington	—	—	—	—	—	29·8	17·3
Oberende des Duchray-Thales (Ben Lomond)	—	—	1,800	—	—	117	67·2
Inveresk	55 56	3 3	90	48·6	44·8	32·9	21·4
Sandwick (Orkney)	—	—	100	48·4	45·1	44·4	27·4
In Irland:							
Armagh	54 21	6 39	211	—	—	43·2	30·5
Belfast	54 35	5 56	27	52·5	50·4	39·2	24·3
Dublin	53 22	6 21	150	50·3	47·0	38·5	21·5
Enniskillen	54 20	7 34	246	52	50·5	49·6	29·4
Limerick	52 39	8 38	160	51·1	49	45·2	30·8

* Höhe des Regenmessers.

† Die Wechsel der Temperatur für die Jahre 1853–65 und die der Regenmenge für die Jahre 1853–60 sind den Berichten des Capitain Wilkinson, R.C., Dublin, entlehnt.

LANDESVERWALTUNG. — Allgemeine — Localverwaltung — Religiöse Einrichtungen — Hauptstädte.

(a.) *Allgemeine Verwaltung.* — Die Regierungsform Englands wird gewöhnlich als eine 'gemischte' bezeichnet, da die gesetzgebende Gewalt und die Executivgewalt von einander getrennt gehalten werden. Mit der Letzteren ist der König oder die Königin allein bekleidet, die auch den Staat in allen internationalen Verhandlungen und Verträgen repräsentiren; während die gesetzgebende Gewalt durch den grossen Nationalrath ausgeübt wird, welcher Parlament heisst und aus den drei Ständen des Reiches, nämlich der Königin, den geistlichen und weltlichen Lords und den Gemeinen besteht. Die Königin hat die höchste Gewalt; in ihrem Namen kommen alle neuen Gesetze, mit der Einwilligung beider Häuser, zur Geltung, und ihre Würde ist erblich. Die geistlichen und weltlichen Lords sind die Prälaten und die Peers des Reiches. Die Gemeinen bestehen aus den gewählten Vertretern des Volkes. Sie werden, theils für die Grafschaften und theils für Städte und Flecken, im Beginn jeden Parlaments, gewählt und behalten ihre Sitze nur so lange dies Parlament dauert.

Die Lords bilden ein Haus und sitzen für sich; die Gemeinen bilden ein anderes, in welchem sie ebenfalls für sich sitzen. Die Königin sitzt mit den Lords; aber sie nimmt ihren Sitz nur bei formellen Veranlassungen ein, wie z. B. wenn sie die Sitzung eröffnet oder ihre Zustimmung zu Gesetzen giebt, welche in beiden Häusern durchgegangen sind. Nach der gegenwärtigen constitutionellen Praxis kann sie bei keiner Berathung zugegen sein; ebensowenig wird angenommen, dass sie auch nur bekannt ist mit dem, was entweder dort oder im Hause der Gemeinen vorgeht, bis ihr eine officiële Mittheilung gemacht wird. Kein Gesetz kann gemacht und keine Steuer aufgelegt werden ohne die Zustimmung des Parlaments, d. h. der Königin und der beiden Häuser der Lords und der Gemeinen, und diese Zustimmung muss von jedem abgesondert gegeben werden. Die Königin besitzt jedoch nur eine negative Stimme; und keine Massregel kann von ihr ausgehen, es sei denn bei Gelegenheit eines Gnadenacts. Die beiden Häuser besitzen die Macht, alle Massregeln ohne Unterschied einzuleiten, mit Ausnahme von Gesetzen, welche sich auf die Rechte des Adels oder auf Geldbewilligungen beziehen, von denen jene stets im Hause der Lords, diese im Hause der Gemeinen eingeführt werden müssen, und in keinem von beiden Fällen darf der so in einem Hause eingeführte Gesetzentwurf im andern eine Veränderung erleiden. Das Parlament wird von der Königin zusammenberufen und wird von ihr vertagt oder aufgelöst, so oft ihr gut dünkt. Sie ist jedoch verpflichtet, 'es wenigstens einmal jährlich zusammen zu berufen und öfter, wenn es nöthig ist.'

Eine Vertagung ist die Fortsetzung eines Parlaments von einer Session zur andern; eine Auflösung ist sein bürgerlicher Tod, welcher nach dem Gesetze alle sieben Jahre nach seinem Beginn eintritt, wenn nicht das Parlament schon vorher durch königliche Proclamation aufgelöst wurde. Die gesammten administrativen und executiven Geschäfte der Regierung werden im Namen der Königin besorgt. Vermittelt einer diesem Zwecke angepassten Maschinerie führt sie die Oberaufsicht über die Verwaltung des Rechts und verordnet die pünktliche Ausführung der Gesetze. Alle Gerichtshöfe und die an denselben angestellten Beamten, wie Richter, Sheriffs, Friedensrichter, Constabler etc., leiten ihre Autorität unmittelbar von ihr ab. Es ist die Pflicht und das Amt der Königin, Unruhen zu unterdrücken und Frieden im Reiche zu erhalten; jede Friedensverletzung wird daher ein Bruch des Friedens der Königin genannt. Mit Bezug auf die auswärtigen Verhältnisse erklärt sie Krieg und schliesst Frieden, verhandelt Verträge, schickt Gesandte in's Ausland und empfängt Gesandte im Inland. Als mit der Ausübung dieser schweren Pflichten verknüpft, hat die Königin die Gesamtverfügung sowohl über die Militair- als über die Civilmacht der Nation, und die Beamten beider werden von ihr ernannt, obgleich ihr Gehalt durch die Autorität des ganzen Parlaments beschafft wird. In der Ausübung ihrer Prärogative, innerhalb der durch das Gesetz bestimmten Grenzen, ist sie Niemandem verantwortlich; und auch, wenn eine auf ihren Befehl geschehene Handlung nicht innerhalb der anerkannten Macht der Krone liegt, ist sie frei von *persönlicher* Verantwortlichkeit. Aus diesem Grunde bedient sich die Königin bei allen ihren Handlungen der Vermittlung von Beamten oder Personen, welche durch keine solche gesetzliche Strafflosigkeit geschützt sind, und überlässt ohne Ausnahme die Leitung der Staatsangelegenheiten ihren Ministern, von denen eine gewisse Anzahl den sogenannten Cabinetsrath bilden. Die Handlungen der Executivgewalt sind auch nothwendigerweise einer andern sehr wirksamen Controle unterworfen. Da die gewöhnlichen Einkünfte der Krone nicht mehr für die Bedürfnisse des Staates ausreichen, sind häufige Verhandlungen über Geldbewilligungen mit dem Hause der Gemeinen nothwendig geworden. Bei diesen Gelegenheiten werden die Massregeln der Minister oft zum Gegenstande der Discussion gemacht, und die Mittel, sie auszuführen, können entweder verweigert oder, unter billigen Bedingungen, bewilligt werden. Es ist jedoch klar, dass die Macht, sie absolut zu verweigern, nur da in heilsamer Weise geltend gemacht werden kann, wo sie für das öffentliche Wohl nicht wesentlich nothwendig sind. So würde es widersinnig vom Hause der Gemeinen sein, eine Controle der Minister der Krone zu versuchen, indem es weigerte, die Staatsgläubiger zu bezahlen oder die bürger-

lichen und militärischen Einrichtungen des Reiches aufrecht zu erhalten.

(b.) *Localverwaltung.*—Was die Localverwaltung angeht, so ist das Land, für bürgerliche Zwecke, in Grafschaften, Städte, Flecken und Kirchspiele eingetheilt. Die ministeriellen und richterlichen Geschäfte der Grafschaft werden durch den Obersheriff, den Todtenbeschauer und die Friedensrichter besorgt. Die Militairverwaltung ist dem Lord Lieutenant anvertraut, der durch Deputy Lieutenants unterstützt wird. Der Lord Lieutenant führt den Befehl über die Miliz und ist häufig *custos rotulorum* oder Archivbewahrer der Grafschaft. Die Hauptzwecke der Localverwaltung sind: die Bewahrung der Ruhe und Ordnung; die Unterhaltung der Armen und der Polizei; die Herstellung und Instandhaltung von Wegen, Strassen und Brücken etc. Das für diese Zwecke erforderliche Geld wird beschafft durch eine auf das Eigenthum, Land, Häuser etc. in der Grafschaft erhobene Steuer.

Die Verwaltung von Municipalstädten und Flecken wird durch den Bürgermeister ('mayor') und den Gemeinderath ('corporation') und die von Kirchspielen durch verschiedene zum Kirchspiel gehörige Beamte besorgt. In manchen nicht incorporirten volkreichen Städten werden Commissaire und Regierungsbehörden, die localen Gesundheitsbehörden, Commissaire öffentlicher Verbesserungen etc. durch die steuerpflichtigen Bürger, unter der Autorität des Parlaments, gewählt, um nützliche Unternehmungen zu leiten und die localen Geschäfte zu verwalten.

(c.) *Religiöse Einrichtungen.*—Die Staatskirche von England ist die Protestantisch-bischöfliche, aber alle Religionen werden geduldet. Die Verwaltung der Staatsreligion ist der Geistlichkeit anvertraut, einer für diesen Zweck bestimmten Klasse, welche das ausmacht, was man unter der Kirche von England versteht. Sie bezieht ihren Unterhalt von Ländereien, Zehnten, Kirchensteuern, Kirchstuhlmiethen, Ostergaben und Tauf- und Begräbnissgebühren etc. Die geistliche Eintheilung von England und Wales besteht aus Provinzen oder Erzbisthümern, Diöcesen oder Bisthümern, Archidiaconaten, Dechaneien und Kirchspielen, die alle ihre Beamten haben, welche den Beamten der unteren Abtheilungen vorstehen, während die Königin, als Haupt der Kirche, allen vorsteht. Es giebt zwei Erzbisthümer, das von Canterbury und das von York, und fünf und zwanzig denselben untergebene Bischöfe. Zur Verwaltung der geistlichen Angelegenheiten hat jede Provinz einen Rath oder eine Convocation, wie derselbe genannt wird, welche aus den Bischöfen, Archidiaconen, und Decanen in Person und aus einer gewissen Anzahl von Deputirten ('proctors') als Repräsentanten der niedern Geistlichkeit gebildet wird. Diese Rathversammlungen werden durch die beiden Erzbischöfe, im Auftrage der Königin, zusammenberufen. Die Verwaltung der Angelegenheiten dissidentirender

Gemeinden ruht in deren eignen Händen. Die Schottische Kirche wird durch eine General-Versammlung ('general assembly') verwaltet, welche alljährlich tagt. Ein Vertreter des Monarchen, mit dem Titel eines Lord High Commissioner, ist bei den Verhandlungen zugegen. Die Irische Kirche ist, wie die von England, Protestantisch-bischöflich und wird auf ähnliche Weise verwaltet. Die Masse der Bevölkerung von Irland (ungefähr vier Fünftel) bekennen sich jedoch zum Römisch-katholischen Glauben.

(d.) *Hauptstädte.*—Die wichtigsten Städte in England sind London, Liverpool, Manchester und Salford, Birmingham, Leeds, Sheffield, Bristol, Wolverhampton, Newcastle an der Tyne, Stoke an der Trent und Hull. Die Bevölkerung jedes dieser Orte übersteigt 100,000 Seelen. Zwei und siebenzig andere Städte in England und Wales hatten bei der Aufnahme des Census im Jahre 1861 eine Bevölkerung von mehr als 20,000 Personen. Die hauptsächlichsten Städte in Schottland sind Edinburgh, Glasgow, Dundee, Aberdeen, Paisley, Greenock, Leith und Perth, und in Irland: Dublin, Belfast, Cork, Limerick, Waterford und Londonderry. Die Bevölkerung der drei Hauptstädte betrug im Jahre 1861: in London, 2,803,989, in Edinburgh, 170,444, und in Dublin, 314,409 Seelen.

FLÄCHENINHALT.—Gesamfter Flächeninhalt —Küstenlinie—Häfen.

(a.) *Gesamfter Flächeninhalt.*—Der gesammte Flächeninhalt des Vereinigten Königreichs beträgt 121,115 Quadratmeilen oder 77,513,000 Statut-Morgen, welche vertheilt sind wie folgt:—

Provinzen	Flächeninhalt		Landmasse, die im Jahre 1866 als im Anbau begriffen, als Brach- und als Grasland angegeben wurde
	In Quadratmeilen	In Statut-Morgen	
England . .	50,923	32,590,000	22,262,000
Wales . .	7,398	4,735,000	2,284,000
England und Wales .	58,321	37,325,000	24,546,000
Schottland . .	30,685	19,639,000	4,158,000
Irland . .	31,755	20,322,000	15,550,000
Inseln in den Britischen Gewässern .	354	227,000	115,000
Gesamtsumme für das Vereinigte Königreich	121,115	77,513,000	44,369,000*

* In den Berichten für Irland sind in der obigen Tabelle die *Hügelweiden* eingeschlossen, was den Anbau begriffenen Flächeninhalt dieser Provinz verhältnissmässig grösser erscheinen lässt, als in den andern Provinzen des Königreichs, wo die Hügelweiden nicht eingeschlossen sind.

(b.) *Küstenlinie.*—Die Ausdehnung der Küstenlinie von England und Wales wird auf ungefähr 2,000 und die von Schottland auf

2,500 Meilen veranschlagt. Irland hat eine Küstenlinie von ungefähr 750 Meilen, von der ein grosser Theil, besonders im Westen und Südwesten, tief von Meeresarmen durchschnitten ist.

(c.) *Häfen.*—Die besten Häfen, sowohl in Grossbritannien als in Irland, liegen an den Süd- und den Südwestküsten, während die an der Ostküste gelegenen dem Handel nur mässige Bequemlichkeiten darbieten.

Die grössten Häfen des Vereinigten Königreichs sind die von Portsmouth, Plymouth, Milford Haven und Cork, welche vielleicht nur von sehr wenigen der Welt übertroffen werden. Sie besitzen grosse Wassertiefe und können der grössten Flotte als Zufluchtsort dienen. Die Häfen von Holyhead und Dover, welche sich der Vollendung nähern, werden ebenfalls der Schifffahrt beträchtlichen Schutz gewähren. Grosse Geldsummen sind auf die verschiedenen Häfen des Königreichs verwandt worden. London steht an der Spitze der Flusshäfen von Grossbritannien. Die Mersey ist der zweite Handelsfluss des Landes; Newcastle, Hull, Bristol, Greenock, Sunderland, Leith, Dundee, Aberdeen, Port Patrick, Kingstown und zahlreiche andere Häfen nehmen Schiffe von mächtigem Tonnengehalt auf; und viele kleinere Häfen in allen Theilen des Königreichs sind zur Aufnahme von Küstenschiffen geeignet und erleichtern dadurch in hohem Masse den Binnenhandel des Königreichs.

VERKEHRSMITTEL. — Flüsse — Canäle — Landstrassen — Seen — Eisenbahnen — Electriche Telegraphen.

(a.) *Flüsse, Canäle, Landstrassen und Seen.*—Abgesehen von schiffbaren Flüssen, welche eine Gesamtlänge von etwa 2,500 Meilen erreichen, haben England und Wales ungefähr 2,800 Meilen Canäle, 24,000 Meilen Chausseen und 100,000 Meilen Landwege. Beinahe sämtliche grosse Städte, Seehäfen und Fabrikstädte sind sowohl durch Land- als durch Wasserstrassen mit einander verbunden. In Schottland sind die Hauptcanäle: der grosse Canal, welcher den Frith of Forth mit der Clyde verbindet, und der Union-, der Crinan- und der Caledonian-Canal. Der Letztere erstreckt sich, indem er eine Anzahl von Seen mit einander verbindet, durch das ganze Land und

bildet eine Wasserstrasse durch die Mitte der Insel. Die Chausseen und andere Landstrassen werden auf 3,700 Meilen Länge geschätzt. Die Länge der schiffbaren Flüsse in Irland beträgt ungefähr 210 Meilen, die der Canäle 300 Meilen. Berichte über die Meilenzahl der Landstrassen in Irland sind nicht vorhanden.

England besitzt sehr wenige Seen und keinen von grossem Umfang. Die Englischen Seen liegen hauptsächlich in Westmoreland und Cumberland; der grösste (Windermere) ist ungefähr zwölf Meilen lang und eine breit. Die Hauptseen von Schottland sind: Loch Lomond, zwischen den Grafschaften Dumbarton und Stirling; Loch Ness, in Invernesshire; Loch Awe, in Argyllshire; und Lochs Tay, Rannock und Erich, in Perthshire. Der grösste See in Irland ist Lough Neagh, in Ulster, der einen Flächeninhalt von etwa 98,000 Morgen Wasser hat. Die Loughs Erne, Corrib, Mask, Conn und Killarney liegen in demselben Lande.

(b.) *Eisenbahnen.*—Die Ausbildung des Eisenbahnsystems in dem Vereinigten Königreich hat während der letzten funfzehn Jahre sehr rasche Fortschritte gemacht; und ausser den weitverzweigten Verbindungswegen der Flüsse, Canäle und Landstrassen giebt es jetzt 13,289 Meilen Eisenbahnen, von denen man sagen kann, dass sie Verbindungsglieder bilden zwischen jeder Stadt und jedem Districte des Landes.

Die Meilenzahl von Eisenbahnen, welche am 31. December 1865 in den verschiedenen Provinzen des Königreichs dem Verkehr geöffnet waren, betrug:—

	Doppelte Linien	Einfache Linien	Gesamtsumma
	Meilen	Meilen	Meilen
In England und Wales .	6,081	3,170	9,251
Schottland . . .	946	1,254	2,200
Irland . . .	476	1,362	1,838
Vereinigtes Königreich . . .	7,503	5,786	13,289

Die Gesamtmasse des auf Actien, Anleihen etc. für Eisenbahnen in dem Vereinigten Königreich gezahlten Capitals betrug am 31. December 1865 455,478,000*l*.

Der Betrag des Passagierverkehrs während der Jahre 1864 und 1865 verhielt sich in jeder Provinz des Königreichs wie folgt:—

	Jahre	In England und Wales	In Schottland	In Irland	In dem Vereinigten Königreich
Passagiere:		Zahl	Zahl	Zahl	Zahl
Erster Klasse	{ 1864	23,467,020	2,691,301	1,543,094	29,701,415
	{ 1865	25,053,443	2,840,446	1,769,316	29,663,205
Zweiter Klasse	{ 1864	50,681,016	1,998,949	3,589,204	65,269,169
	{ 1865	64,520,007	2,349,500	3,913,734	70,783,241
Dritter Klasse (mit Einschluss parlamentarischer Passagiere)* . . .	{ 1864	114,016,625	15,515,205	6,769,751	136,301,581
	{ 1865	127,120,088	16,805,582	7,490,599	151,416,269
Summa	{ 1864	197,164,661	20,205,455	11,902,049	229,272,165
	{ 1865	216,693,538	21,995,528	13,173,649	251,862,715

* Parlamentarische Passagiere werden befördert nach einer Veranschlagung von nicht mehr als einem Penny per Meile. Ein Passagiere dieser Klasse befördernder Zug befährt jeden Tag im Jahre die ganze Länge jeder Bahn und hält an allen Stationen still.

	Jahre	In England und Wales	In Schottland	In Irland	In dem Vereinigten Königreich
		Zahl	Zahl	Zahl	Zahl
Saison-Billet-Inhaber	{ 1864	51,914	15,403	9,182	76,499
	{ 1865	63,997	20,743	12,406	97,147
Zahl der beförderten Wagen . . .	{ 1864	54,030	8,619	4,053	66,702
	{ 1865	52,286	8,809	3,204	59,299
„ „ „ Pferde	{ 1864	230,368	28,419	24,325	283,112
	{ 1865	210,203	17,478	26,869	254,550
„ „ „ Hunde	{ 1864	354,019	68,880	36,695	459,594
	{ 1865	312,166	47,709	36,222	396,097

Die nachstehende Tabelle zeigt die Durchschnittspreise, welche von den bedeutendsten Eisenbahn-Compagnien des Königreichs im Jahre 1865 angesetzt wurden:—

Provinzen und Eisenbahnen	Durchschnitts- preise für gewöhn- liche Züge			Durch- schnittspreise für Expresszüge		Provinzen und Eisenbahnen	Durchschnitts- preise für gewöhn- liche Züge			Durch- schnittspreise für Expresszüge	
	1. Klasse	2. Klasse	5. Klasse	1. Klasse	2. Klasse		1. Klasse	2. Klasse	5. Klasse	1. Klasse	2. Klasse
	Per Meile	Per Meile	Per Meile	Per Meile	Per Meile		Per Meile	Per Meile	Per Meile	Per Meile	Per Meile
In England und Wales:	d.	d.	d.	d.	d.	In Schottland:	d.	d.	d.	d.	d.
Great Eastern	2'57	1'97	1	2'87	2	Caledonian	1'21	1'36	0'66	—	—
„ Northern	2'35	1'61	0'98	—	—	Glasgow und E. West.	1'25	1'41	0'93	—	—
„ Western	2'73	1'86	0'96	2'38	1'74	Great N. of Scotland	1'64	—	0'97	—	—
Lanc. und Yorkshire	1'38	1'16	0'60	—	—	North British . . .	1'84	1'52	0'91	—	—
London und Blackwall	2'35	1'57	0'96	—	—	Scottish N. Eastern .	2'15	1'45	0'99	—	—
„ und N.-West. . .	1'95	1'44	0'95	2'50	1'96						
„ und S.-West. . .	2'31	1'70	0'98	2'69	1'95						
„ Brighton und S. Coast	1'92	1'43	0'90	2'59	2'10						
„ Chatham und Dover	2'44	1'66	0'95	3'01	2'03	In Irland:					
Manchester, Sheffield und Lincoln . . .	2'43	1'74	0'97	—	—	Belfast und N. Conn.	1'94	1'40	0'90	—	—
Midland	2'39	1'71	0'97	—	—	Dublin, Wicklow und Wexford .	2'05	1'51	0'97	—	—
North-Eastern . . .	2'10	1'50	0'85	—	—	Great S. und Western Ulster	1'94	1'49	0'91	—	—
„ London	1'53	1'03	1	—	—	Waterford und Lime- rick	2'07	1'53	0'93	—	—
South-Eastern . . .	1'96	1'39	0'83	2'34	1'70						

* Mit Einschluss parlamentarischer Passagiere.

(c.) *Electrische Telegraphen.*—Die Statistik über die zum Gebrauch des Publicums bestimmten electrischen Telegraphen, soweit darüber im Jahre 1865 durch die verschiedenen

Telegraphen-Compagnien an das Handelsministerium Bericht erstattet wurde, verhält sich wie folgt:—

Name der Compagnie	Länge der Telegraphenlinien	Länge der gebrauchten Drähte	Zahl der dem Publicum geöffneten Stationen	Zahl der Instrumente	Zahl der öffentlichen Depeschen
	Meilen	Meilen			
Electric and International	9,306	45,044	1,022	5,778	nicht ermittelt
British and Irish Magnetic*	4,401	18,668	491	kein Bericht	1,251,265
Süd-Ost-Bahn†	323½	3,064½	104	159	88,711
London, Brighton, and South Coast Railway	240½	688	57	92	66,523
London-District‡	123	470	83	195	316,272
The United Kingdom	1,672	9,506	125	358	743,870
Summa	16,066½	77,440½	1,882	—	—
Submarine§	887 (im Jahre 1863)	—	—	—	—

* Die Zahl der von dieser Compagnie, in Gemeinschaft mit der Submarine Telegraph Company nach und von dem Festlande geschickten Depeschen und die Zahl der Depeschen für Eisenbahn-Compagnien, Zeitungen und Lesezimmer sind nicht in den Depeschen für das Publicum eingeschlossen, werden aber jährlich auf etwa 250,000 geschätzt.

† Die South-Eastern Railway Company hat keine Arbeitsverbindung mit irgend einer der electrischen Telegraphen-Compagnien.

‡ Mit Ausschluss von Privat-Telegraphen, welche von dieser Compagnie für Geschäftshäuser und Personen hergestellt werden, die zwei Geschäftslocale haben, und des Telegraphensystems der Londoner Löschmannschaft.

§ Der Telegraph nach Calais, 24 Meilen; nach Boulogne, 25 Meilen; nach Dieppe, 78 Meilen; nach Jersey, 30 Meilen; nach Ostende, 70 Meilen, nach Hannover, 80 Meilen; und nach Dänemark, 380 Meilen.

Den obigen Linien müssen hinzugefügt werden die beiden Kabel der Atlantischen Telegraphen-Compagnie zwischen Irland und Neufundland. Die Kabellänge, welche für die Linie von 1865 verschifft wurde, betrug 2,300 Seemeilen, und im Jahre 1866 wurden nicht weniger als 2,730 Seemeilen Kabel gebraucht, um ein neues Kabel zu legen und das im vorhergehenden Jahre beschädigte auszubessern.

BEVÖLKERUNG.—Gesamthe — Nationalitäten — Religiöse Confessionen — Beschäftigten — Hauptstädte — Zunahme seit 1855 — Auswanderung — Blinde — Taube — Stumme — Geburten — Todesfälle — Heirathen — Arme — Criminalverbrecher.

(a.) *Bevölkerung.* — Die Gesamtbevölkerung des Vereinigten Königreichs betrug bei dem letzten Census im Jahre 1861 in runden Zahlen 29,070,000 Personen und die Bevölkerung der verschiedenen Provinzen des Königreichs:—

Provinzen	Bevölkerung (mit Ausschluss der im Auslande stationirten Armee und Flotte)			Armee, Flotte und Matrosen der Handelsflotte im Auslande
	Männer	Frauen	Summa	
In England	9,224,000	9,730,000	18,954,000	162,723
Wales	552,000	560,000	1,112,000	
Schottland	1,450,000	1,612,000	3,062,000	
Irland	2,837,000	2,962,000	5,799,000	
Inseln in den Britischen Gewässern	66,000	77,000	143,000	
Vereinigtes Königreich	14,129,000	14,941,000	29,070,000	250,356

Das Verhältniss der Bevölkerung in den vier Provinzen des Königreichs war daher: In England und Wales 69·1, in Schottland 10·5, in Irland 19·9 und auf den Inseln 0·5; oder von zehn Theilen der Bevölkerung gehörten sieben zu England und Wales, zwei zu Irland, einer zu Schottland und $\frac{2}{20}$ zu den Inseln in den Britischen Gewässern.

Mit Einschluss der im Auslande in der Armee, der Flotte etc. befindlichen Männer, stand im Jahre 1861 einer männlichen Bevölkerung von 14,379,000 eine weibliche von 14,941,000 in dem Vereinigten Königreich gegenüber. Um die Mitte des Jahres 1866 wurde die Bevölkerung des Vereinigten Königreichs (mit Ein-

schluss der im Auslande befindlichen Armee und Flotte) auf 30,329,207 veranschlagt.

Die Dichtigkeit der Bevölkerung per Quadratmeile war im Jahre 1861:—

In England	372·2
„ Wales	150·3
„ Schottland	99·7
„ Irland	182·6
Auf den Inseln	403·9

Vereinigtes Königreich 240·0

(b.) *Nationalitäten.*—Die Nationalität der Bevölkerung in den verschiedenen Provinzen des Königreichs war um dieselbe Zeit:—

Nationalitäten	In England und Wales	In Schottland	In Irland	In den Inseln der Britischen Gewässer
Engländer	17,985,617	54,920	50,936	{ 19,525 290
Walliser	1,134,435	1,112		
Schotten	169,202	2,785,804		
Irländer	601,634	204,083	5,720,686	5,534
Geboren auf den Inseln der Britischen Gewässer	18,423	628	10,420	{ 111,354 1,262 4,184† 63
„ „ in den Colonien und in Ostindien	51,572	7,559		
„ „ in fremden Staaten	101,832*	8,188†		
„ „ auf dem Meere	3,509			
Summa	20,066,224	3,062,294	5,798,967	143,447

* Mit Einschluss von 84,090

† „ „ „ 3,695

‡ „ „ „ 3,923

Personen, welche die Unterthanen fremder Staaten waren.

(c.) *Religiöse Confessionen.*—Es sind keine Berichte vorhanden über die Zahl der den verschiedenen religiösen Confessionen in Grossbritannien angehörenden Personen. Die Zahl der verschiedenen Secten in Irland wurde im Jahre 1861 angegeben wie folgt:—

	Personen
Zur Staatskirche gehörend	693,357
Presbyterianer	523,291
Methodisten	45,399
Independenten	4,532

	Personen
Baptisten	4,237
Quäker	3,695
Alle andern Confessionen	14,695

Gesamtzahl der Protestanten	1,289,206
Römische Katholiken	4,505,265
Juden	393
Nicht specificirt	4,103
Summa	5,798,967

(d.) *Beschäftigungen*.—Wenn man die Beschäftigungen des Volkes in Grossbritannien im Jahre 1851, dem ersten Zeitpunkt, in welchem zuverlässige Berichte darüber erlangt wurden, mit ähnlichen Berichten aus dem Jahre 1861 vergleicht, so sind die folgenden Veränderungen in den drei grossen Branchen der Beschäftigung bemerkenswerth:—

1. Derjenige Theil der Bevölkerung, welcher mit dem Ackerbau beschäftigt war, war von 12 Procent auf 10 Procent gesunken.

2. Derjenige Theil der Bevölkerung, welcher mit dem Handel beschäftigt war, war von 21 Procent auf 27 Procent gestiegen.

3. In allen andern Beschäftigungen hatte eine Abnahme von 67 Procent auf 63 Procent stattgefunden.

Diese Thatsachen werden vielleicht noch deutlicher durch die folgenden Daten zur Anschauung gebracht:—

	Mit Ackerbau beschäftigt	Mit dem Handel beschäftigt	Alle andern Beschäftigun- gen
Im Jahre 1851	12	21	67
Im Jahre 1861	10	27	63

Der Erlangung genauer Berichte über die Beschäftigungen des Volkes stehen grosse Schwierigkeiten entgegen, und obgleich manche derselben bei der Aufnahme des Census im Jahre 1861 theilweise überwunden wurden, hielt man dennoch die erlangten Nachweise in manchen Beziehungen für unvollkommen. Für allgemeine Zwecke gewähren indess die sechs grossen Abtheilungen der Beschäftigung, unter welchen die Berichte des Census zusammengestellt waren, eine ziemlich befriedigende Annäherung an die Wahrheit. In England und Wales wurden, aus einer Bevölkerung von 20,066,224, Berichte über die Beschäftigungen von 19,915,334 gesammelt. In Schottland waren die Berichte vollständig, und in Irland wurden aus einer Gesamtzahl von 5,798,967 Personen Berichte über die Beschäftigungen von 5,416,806 erlangt.

Die nachstehende Tabelle giebt die Procente der Bevölkerungstheile, welche während des Jahres 1861 in jeder Provinz des Königreichs den sechs Klassen der Beschäftigung angehörten:—

Klassen der Beschäftigung	Procent-Theile		
	In England und Wales	In Schott- land	In Irland
(1) Professionelle	2·4	1·7	1·8
(2) Häusliche	57·4	57·0	56·8
(3) Commercialle	3·1	2·8	2·2
(4) Landbauende	10·1	12·5	18·3
(5) Industrielle	24·3	22·8	12·3
(6) Unbestimmte und unpro- ductive	2·7	3·2	8·6
	100·0	100·0	100·0

- (1) Personen einschliessend, welche mit der Regierung oder Vertheidigung des Landes und mit den gelehrten Professionen, den Künsten, Wissenschaften etc. beschäftigt sind.
- (2) Personen einschliessend, welche den häuslichen Beruf von Frauen, Müttern und Wittwen, Kindern und Verwandten, Schülern, Unternehmern von Logis- und Speisehäusern und Domestiken etc. erfüllen.
- (3) Personen einschliessend, welche kaufmännische Geschäfte betreiben, und andere allgemeine Händler, Güterbeförderer auf Eisenbahnen, Landstrassen, Canälen, Flüssen und Meeren, Boten und Lastträger.
- (4) Personen einschliessend, welche mit dem Ackerbau, der Baumzucht, der Gärtnerei und der Thierzucht beschäftigt sind.
- (5) Personen einschliessend, welche mit sämtlichen sonst nicht aufgezählten Manufacturarbeiten beschäftigt sind.
- (6) Personen einschliessend, welche im allgemeinen als Arbeiter beschäftigt sind, Personen von Rang und Vermögen, welche kein Amt und keine Beschäftigung haben. Personen ohne besondere Beschäftigung, welche auf Gemeindegeldern unterhalten werden, wie Pensionäre, Empfänger von Almosen, Arme, Wahnsinnige, Gefangene, Vagabunden etc., und alle anderen ohne bestimmte Beschäftigung.

Die nachstehende Tabelle zeigt die Gesamtzahl von Personen beider Geschlechts, welche während des Jahres 1861 in den verschiedenen Provinzen des Königreichs häusliche, landbauende und industrielle Geschäfte betrieben. Die Zahlen für landbauende und industrielle Beschäftigungen schliessen *alle*, mit dem Landbau oder mit den verschiedenen Geschäftszweigen in Verbindung stehende, Personen ein, wie Pächter, Fabricanten, Kaufleute, Arbeiter, Handwerker, etc. etc.

Anzahl von Personen beider Geschlechts, welche nach dem Census von 1861 als Diensthofen und mit der Landwirthschaft und den wichtigsten Industriezweigen in den verschiedenen Provinzen des Vereinigten Königreichs beschäftigt waren.

Geschäftszweige, in welchen beschäftigt	In England und Wales			In Schottland			In Irland		
	Männer	Frauen	Summa	Männer	Frauen	Summa	Männer	Frauen	Summa
Domestiken . . .	137,447	1,071,201	1,208,648	10,827	138,375	149,302	41,318	304,767	346,085
Im Landbau, d. h. in Feldern und auf Weiden . . .	1,457,075	376,577	1,833,652	215,716	120,773	336,489	850,121	81,714	931,835
Industrie:									
Bücher . . .	46,983	7,310	54,293	7,662	1,418	9,080	4,032	886	4,918
Musikalische Instrumente . . .	6,365	221	6,586	339	1	340	127	1	128
Drucksachen und Gemälde . . .	5,875	435	6,310	1,259	144	1,403	276	11	287
Schnitzwerk und Figuren . . .	4,149	4,600	8,749	404	90	494	77	42	119
Spielgeräth etc. . .	2,427	1,760	4,187	181	89	270	122	42	164
Zeichnungen, Medaillen . . .	2,762	48	2,810	821	10	831	169	5	165
Uhren und philosophische Instrumente . . .	24,888	735	25,623	1,964	13	1,977	1,012	12	1,024
Wundärztliche Instrumente . . .	798	231	1,029	31	8	39	15	3	18
Waffen . . .	13,031	713	13,744	397	5	402	258	1	259
Maschinen und Werkzeuge . . .	110,772	6,646	117,418	10,948	289	11,237	1,505	83	1,588
Wagen . . .	19,896	232	20,128	1,549	1	1,550	2,972	28	3,000
Pferdegeschirr . . .	18,109	1,305	19,414	1,857	7	1,864	3,177	44	3,221
Schiffe . . .	43,704	75	43,779	9,148	6	9,154	2,220	9	2,229
Häuser und Gebäude . . .	480,092	25,579	505,671	68,598	4,708	73,306	57,023	7	57,030
Möbel . . .	55,600	8,316	63,916	6,889	533	7,422	3,347	556	3,903
Geräthe . . .	39,526	97	39,623	3,523	2	3,525	1,814	—	1,814
Chemicalien . . .	18,245	1,764	20,009	4,336	1,600	5,936	700	238	938
Wolle und Worsted . . .	132,942	105,872	238,814	13,861	14,457	28,318	3,384	63,014	36,398
Seide . . .	45,121	72,868	117,989	2,768	2,552	5,320	354	236	590
Baumwolle und Flachs . . .	238,643	324,371	563,014	53,704	88,708	142,412	44,773	82,375	127,148
Gemischte Materialien . . .	57,481	25,689	83,170	11,746	8,064	19,810	24,718	55,028	79,746
Kleidungsstücke . . .	399,166	806,581	1,205,747	51,817	81,290	133,107	66,375	150,625	217,000
Hanf etc. . .	17,070	5,113	22,583	5,563	3,950	9,513	1,386	706	2,092
Animalische Nahrungsmittel . . .	102,836	38,349	141,185	9,065	5,359	14,424	13,219	7,935	21,154
Vegetabilische Nahrungsmittel . . .	115,485	20,869	136,354	18,355	2,293	20,648	16,742	3,795	20,537
Getränke und Stimulantien . . .	129,293	23,388	152,681	21,150	5,804	26,954	9,034	2,231	11,265
Fett, Horn, Elfenbein etc. . .	11,186	854	12,040	1,386	247	1,633	1,175	108	1,283
Häute, Federn etc. . .	28,360	1,396	29,756	2,761	57	2,818	2,155	222	2,377
Haar . . .	9,711	4,585	14,296	477	279	756	397	268	665
Gummi und Harze . . .	11,777	2,882	14,659	990	733	1,663	292	513	805
Holz . . .	76,076	2,990	79,066	12,014	294	12,308	12,639	672	13,311
Baumrinde . . .	2,236	116	2,352	655	19	674	488	9	497
Rohrbinden und Stroh . . .	16,048	1,254	17,302	861	70	931	1,286	27	1,313
Papier . . .	16,173	11,632	30,805	3,043	2,695	6,738	2,219	1,115	3,334
Bergbau . . .	330,352	94	330,446	50,706	133	50,839	3,792	96	3,888
Kohlen . . .	43,554	4,684	48,238	4,619	356	4,975	2,488	132	2,620
Steine und Thon . . .	142,170	2,603	144,773	22,670	124	22,794	7,174	35	7,209
Töpferwaare . . .	32,981	14,163	47,144	3,136	1,244	4,380	530	348	878
Glas . . .	14,211	1,392	15,603	1,208	34	1,242	242	44	286
Salz . . .	2,404	123	2,527	77	6	83	80	13	93
Wasser . . .	2,147	26	2,173	184	—	184	194	53	247
Gold, Silber etc. . .	18,600	2,976	21,576	1,085	35	1,120	527	86	563
Kupfer . . .	5,752	3,981	9,733	401	1	402	281	—	281
Zinn und Quecksilber . . .	18,484	4,444	22,878	2,432	48	2,480	2,032	—	2,032
Zink . . .	743	17	760	9	—	9	4	—	4
Blei und Antimonium . . .	4,027	970	4,997	532	—	532	63	—	63
Messing und andere gemischte Metalle . . .	41,612	3,965	45,577	3,059	118	3,177	1,867	93	1,960
Eisen und Stahl . . .	299,697	16,875	316,572	44,869	131	45,000	26,576	152	26,728

(e.) *Bevölkerung der wichtigsten Städte.*—Die folgende Tabelle zeigt die *gezählte* Bevölkerung der wichtigsten Städte in den verschiedenen Provinzen des Königreichs während der Jahre 1851 und 1861 und die *veranschlagte* Bevölkerung für das Jahr 1866, soweit dieselbe ermittelt ist:—

Städte	Gezählte Bevölkerung		Veranschlagte Bevölkerung, um die Mitte des Jahres 1866
	1851	1861	
In England:			
London	2,362,236	2,803,989	3,037,991
Liverpool	375,955	443,938	484,337
Manchester	303,382	338,722	358,855
Salford	85,108	102,449	112,904
Birmingham	292,841	296,076	335,798
Leeds	172,270	207,165	228,187
Sheffield	135,310	185,172	218,257
Bristol	137,328	154,093	163,680
Newcastle an der Tyne	87,784	109,108	122,277
Hull	84,690	97,661	105,233
In Schottland:			
Edinburg	161,648	170,444	175,128
Glasgow	329,097	395,503	432,265
Dundee	80,027	91,664	—
Aberdeen	71,973	73,900	—
Paisley	48,071	47,427	—
Greenock	37,436	43,894	—
Leith	32,219	56,029	—
Perth	24,670	26,094	—
In Irland:			
Dublin	—	314,409	318,437
Belfast	—	123,479	—
Cork	—	93,389	—
Limerick	—	50,068	—
Waterford	—	30,570	—
Londonderry	—	20,366	—

Anmerkung.—Im Jahre 1861 gab es zwei und siebenzig Städte in England und Wales, von denen jede eine Bevölkerung von mehr als 20,000 Einwohnern hatte.

Die folgende Tabelle zeigt die Zunahme der Bevölkerung in einigen der ansehnlichsten Städte Englands, zwischen den Jahren 1855 und 1865:

	Veranschlagung der gesammten Bevölkerung	
	1855	1865
London	2,548,382	2,993,513
Liverpool	403,547	476,386
Manchester	317,966	354,930
Salford	92,106	110,833
Birmingham	257,941	327,842
Leeds	186,356	224,025
Sheffield	154,662	211,529
Bristol	144,236	161,809
Newcastle an der Tyne	96,307	119,651

(f.) *Zunahme der Gesamtbevölkerung seit dem Jahre 1855.*—Die Zunahme der Gesamtbevölkerung von Grossbritannien zwischen den Jahren 1855 und 1865 (mit Ausschluss der Armee, der Flotte etc. im Auslande) kann auf etwa 12 Procent angesetzt werden, da die veranschlagte Bevölkerung sich von 21,807,000 im Jahre 1855 auf 24,363,000 im Jahre 1865 vermehrt hat. In Irland nahm sie während desselben Zeitraums, besonders durch die

massenhaft stattfindende Auswanderung, etwa 7 Procent ab.

(g.) *Auswanderung.*—Während der mit dem Jahre 1865 endenden zehn Jahre wanderten 1,607,745 Personen aus dem Vereinigten Königreiche aus. Von dieser Anzahl gingen 139,802 nach den Nordamerikanischen Colonien, 1,005,844 nach den Vereinigten Staaten, 397,302 nach den Australischen Colonien und 64,797 nach andern Theilen der Erde. Berichte über die Zahl der Einwanderer, welche aus fremden Ländern in dem Vereinigten Königreich ankamen, sind nicht vorhanden.

(h.) *Blinde.*—Die Gesamtzahl von Blinden, welche bei der Aufnahme des letzten Census (1861) im Vereinigten Königreich ermittelt wurde, betrug 439,248, und es befanden sich von dieser Zahl:—

In England und Wales	12,236 oder 1 in 1,640	} der Bevölkerung
Schottland	2,820 „ 1 „ 1,086	
Irland	6,879 „ 1 „ 843	
Inseln in den Britischen Gewässern	197 „ 1 „ 728	

Vereinigtes Königreich 29,248 oder 1 in 994

Es bestehen mehrere Anstalten für die Versorgung der Blinden in London und in vielen andern Städten Englands.

(i.) *Taubstumme.*—Die Gesamtzahl der Taubstummen betrug zu derselben Zeit 20,311 und sie waren vertheilt wie folgt:—

In England und Wales	12,236 oder 1 in 1,640	} der Bevölkerung
Schottland	2,335 „ 1 „ 1,311	
Irland	5,653 „ 1 „ 1,026	

Vereinigtes Königreich (mit Einschluss der Inseln) 20,311 oder 1 in 1,432

Die nördlichen Grafschaften Schottlands enthalten eine grössere Zahl von Taubstummen als irgend ein anderer Theil Grossbritanniens.

(j.) *Geburten, Todesfälle, Heirathen.*

Jahre	Veranschlagte Bevölkerung	Geburten	Todesfälle	Heirathen
England und Wales				
1863	20,554,137	727,417	473,837	173,510
1864	20,772,308	740,275	495,531	180,387
1865	20,990,946	747,870	491,360	182,470
Schottland				
1863	3,101,345	109,325	71,421	22,087
1864	3,118,701	112,445	74,303	22,675
1865	3,136,057	113,126	70,821	23,577
Irland				
1864	*5,798,967	136,640	94,000	27,370
1865		145,200	93,700	30,680

* Bevölkerung im Jahre 1861.

(k.) *Arme.*—Die Gesamtzahl der Armen, welche in und ausser dem Hause Unterstützung empfangen, betrug am 1. Januar 1866 in den verschiedenen Provinzen des Königreichs:—

In England und Wales	920,344
Schottland	121,394
Irland	65,057

(l.) *Criminalverbrecher im Jahre 1865.*

	In Eng- land und Wales	In Schott- land	In Irland
Zahl der gerichtlich Ver- hörten	19,614	2,567	4,657
„ „ Verurtheilten	14,740	2,360	2,663
„ „ Freigesprochenen (mit Ausschluss von Personen, welche als wah- nsinnig einge- perrt wurden)	4,842	207	1,966

PRODUCTION. — Ackerbau — Ernten — Wolle und Flachs — Viehstand — Grösse der Pachtgüter — Wälder — Fischereien — Steinkohlen — Metalle — Petroleum — Thon — Porcellanerde — Salz — Webefabricate — Andere Industriezweige.

(a.) *Ackerbau.*—Was die Bodenerzeugnisse angeht, so sind leider keine officiellen Berichte vorhanden über die Quantitäten von Korn, Fleisch, Wolle oder von Butter und Käse und andern Kuhweide-Producten, welche jährlich gewonnen werden. In dieser Hinsicht steht England weit hinter den meisten festländischen Nationen zurück, wo seit einer Reihe von Jahren ein vollständiges System der Landbau-Statistik zur Ausführung gekommen ist. Bis zum Jahre 1866 wurden selbst über die Menge des angebauten Landes und über die Zahl des Viehes keine vollständigen Berichte für das ganze Königreich erlangt.

Die nachstehende Tabelle zeigt den Umfang des in Anbau begriffenen Landes, in den verschiedenen Theilen des Königreichs, nach den Berichten vom Jahre 1866:—

Provinzen	Gesammter Flächeninhalt	Gesammtmasse des Acker-, Brach- und Wiesenlandes	Masse des zum Getreidebau benutzten Landes	Masse des zu Grünaasen be- nutzten Landes
	Morgen	Morgen	Morgen	Morgen
England	32,590,397	22,261,833	7,400,170	2,750,008
Wales	4,734,486	2,284,674	521,074	139,265
Schottland	19,639,377	4,158,360	1,366,540	663,257
Grossbritannien	56,964,260	28,704,867	9,287,784	3,552,530
Irland	20,322,641	*15,549,796	2,173,433	1,482,091
Insel Man	180,000	82,902	27,266	12,208
Normannische Inseln—Jersey	28,717	23,357	3,142	5,253
Guernsey	17,967	11,999	2,041	2,938
Vereinigtes Königreich	77,513,585	—	11,493,666	5,055,020

* Diese Zahlen schliessen die Hügelweiden ein, welche in den Berichten für die andern Provinzen des Königreichs ausgeschlossen sind.

(b.) *Ernten.*—Die Gesammtmasse des Landes, welches mit den wichtigsten Getreidearten angebaut wurde, war wie folgt:—

	Morgen
Unter Weizenbau	3,697,635
„ Gerstenbau	2,398,485
„ Haferbau	4,469,297
„ Roggenbau	67,879
„ Bohnenpflanzung	537,210
„ Erbsenpflanzung	323,160

11,493,666

Wenn man die Durchschnittsproduction von Weizen zu sieben und zwanzig Buschel per Morgen in Grossbritannien und zu fünf und zwanzig Buschel in Irland annimmt, so kann die Jahresproduction von Weizen in dem Vereinigten Königreich auf etwa 12,364,000 Malter ('quarters') veranschlagt werden. Die einheimische Weizenproduction reicht jedoch bei weitem nicht für den Bedarf aus, und es findet eine sehr ansehnliche Einfuhr von Weizen und andern Getreidearten statt, wie aus der Bezugnahme auf die Bemerkungen über das allgemeine Einfuhrgeschäft des Landes hervorgeht. Mr. Caird, eine wohlbekannte Autorität in Sachen des Landbaues, veranschlagt die Durchschnittsproduction der andern Getreidearten

in England wie folgt: Gerste, acht und dreissig Buschel per Morgen; Hafer und Roggen, vier und vierzig Buschel; und Bohnen und Erbsen, dreissig Buschel.

Während der letzten Jahre ist der Viehzucht in Grossbritannien eine weit grössere Aufmerksamkeit geschenkt worden, und in Folge davon hat man ansehnliche Landstrecken dem Anbau von Wurzelfrüchten übergeben. Die Gesammtmasse des im Vereinigten Königreich mit Grünsaaten bebauten Landes betrug im Jahre 1866 5,055,020 Morgen, wovon 1,555,609 Morgen mit Kartoffeln bebaut wurden, 2,468,564 mit Rüben (turnips) und Schwedischen Rüben, 279,987 mit Mangold, 22,061 mit Wurzeln, 216,610 mit Kohl, Kohlrabi und Raps und 512,189 mit Wicken, Schneckenklee und andern Grünsaaten, mit Ausnahme von Klee und Gras.

(c.) *Wolle und Flachs.*—Von den zu Webefabricaten benutzten Rohmaterialien werden nur zwei in dem Vereinigten Königreich producirt, nämlich Wolle und Flachs. Mr. Behrens schätzt, indem er die Menge einheimischer Schafe seiner Veranschlagung zu Grunde legt, die einheimische Production roher Wolle auf 152,000,000 Pfund. Flachs wird hauptsächlich in Irland gebaut, obschon kleine Quantitäten

auch in England und Schottland gewonnen werden. Der gesammte Flachsbaum in Irland während des Jahres 1866 erstreckte sich über 263,659 Morgen, und die Flachsproduction wurde auf 1,054,000 Centner veranschlagt.

(d.) *Viehstand.*—Die Gesamtzahl der verschiedenen Vieharten in allen Provinzen des Vereinigten Königreichs betrug während des Jahres 1866:—

Provinzen	Rindvieh			Schafe	Schweine
	Kühe	Anderes Rindvieh	Summa		
	Zahl	Zahl	Zahl	Zahl	Zahl
England	1,290,529	2,016,505	3,307,034	15,124,541	2,066,299
Wales	222,546	318,855	541,401	1,668,663	191,604
Schottland	370,447	566,954	937,401	5,255,077	219,716
Irland	1,481,446	2,261,486	3,742,932	4,270,027	1,493,000
Insel Man	7,755	10,932	18,687	55,954	10,956
Normannische Inseln—Jersey	5,815	6,222	12,037	517	6,332
Guernsey	3,030	3,946	6,976	1,214	5,599
Summa, Vereinigtes Königreich	3,381,568	5,184,900	8,566,468	26,375,993	3,993,506

In Folge der durch die Rinderpest erlittenen Verluste bleibt der obige Bericht über den Viehstand unter der Menge des Viehes, welche gewöhnlich im Lande gehalten wird. Wenn man die Verluste durch die Rinderpest der Zahl des Viehes hinzufügt, welche zur Zeit der Abfassung des obigen Berichts vorhanden war, so würde die Veranschlagung des Rindviehstandes sich auf 8,716,279 belaufen. Die Zahl der Schafe, sofern sie die nördlichen Grafschaften von England und Schottland angeht, schliesst wahrscheinlich eine grosse Zahl von Lämmern des Jahres 1866 aus, wegen des Zeitpunktes, in welchem der Bericht abgefasst wurde. Schweine, welche von Landbauern und in Städten gehalten werden, sind nicht in den obigen Berichten für die verschiedenen Provinzen Grossbritanniens einbegriffen.

Bei der Sammlung der obigen Berichte für Grossbritannien wurden keine Anstalten getroffen, die Zahl der Pferde zu ermitteln. Die Zahl der Pferde und Maulesel in Grossbritannien belief sich im Jahre 1864, nach den Steuerberichten, auf 1,071,095. In Irland wurde sie im Jahre 1866 auf 535,000 angegeben, woraus eine Gesamtzahl von etwa anderthalb Millionen für das ganze Königreich hervorgehen würde.

(e.) *Umfang der Pachtgüter.*—1. *Grossbritannien.*—Der letzte Bericht über den Umfang der Pachtgüter in Grossbritannien wurde im Jahre 1851 aufgenommen, und die Gesamtzahl von Pachtgütern in den verschiedenen Provinzen des Landes stand damals wie folgt:—

	Zahl von Pachtgütern
In England und Wales	225,318
Schottland	56,650
Inseln in den Britischen Gewässern	3,968
Summa	285,936

Der durchschnittliche Umfang jedes Pachtgutes in Grossbritannien betrug 102 Morgen; in England und Wales, 111 Morgen; in

Schottland, 74 Morgen, und in den Inseln weniger als 100 Morgen. Die Grössenverhältnisse von tausend Pachtgütern in Grossbritannien waren:—

Unter 100 Morgen	672 Pachtgüter
100 und unter 200 Morgen	187 „
200 und unter 1,000 Morgen	137 „
1,000 und darüber	4 „
	1,000

Die in England und Wales in den Händen von 2,038 Pächtern, mit Pachtgütern von 700 Morgen und mehr, befindliche Masse von Land übertraf zu derselben Zeit die in den Händen von 97,800 kleinen Pächtern befindliche Landmasse um 10,060 Morgen, wie die nachstehenden Daten zeigen:—

	Zahl der Pachtgüter	Morgen Land
Pächter mit Pachtgütern von 700 Morgen und mehr	2,038	2,152,050
Kleine Pächter	97,800	2,141,990

2. *Irland.*—Die Zahl der Pachtgüter in Irland betrug im Jahre 1864:—

Umfang der Pachtungen	Zahl der Pachtungen
Unter 5 Morgen	130,690
5 bis 15 „	176,368
15 bis 30 „	136,578
30 bis 50 „	71,961
50 bis 100 „	54,274
Gesamtsumme unter 100 Morgen	569,844
100 bis 200 Morgen	22,065
200 bis 500 „	8,303
Ueber 500 „	1,559
Gesamtsumme	601,771

(f.) *Wälder.*—Es sind keine Berichte vorhanden über die Masse des in dem Vereinigten Königreich gewonnenen Bauholzes, aber ihr jährlicher Werth wird auf etwa zwei Millionen Pfund Sterling geschätzt.

(g.) *Fischereien*.—Die Britischen Fischereien sind von grossem Umfang, und ein allgemeiner Bericht darüber wird gegeben werden in den statistischen Bemerkungen zu Klasse 70.

(h.) *Steinkohlen und Metalle*.—Die mineralischen Hilfsquellen des Vereinigten Königreichs sind sehr beträchtlich und bilden einen der Hauptzweige des Nationalreichthums. Seit dem Jahre 1854 sind sehr vollständige Berichte über die mineralischen Producte des

Landes erlangt worden, unter der Leitung des Herrn Robert Hunt, Bewahrsers der Bergbauarchive, welche dem Regierungsmuseum der Geologie beigegeben sind. Der Gesamtwert der während des Jahres 1865 in dem Vereinigten Königreich gewonnenen Steinkohlen und Metalle betrug 41,745,429*l.* Sterling. Die nachstehende Tabelle zeigt die Quantitäten und den Werth der mineralischen Erzeugnisse im Jahre 1865:—

		Quantitäten		Schätzung des Werthes am Orte der Production	
		Von gehobenen Mineralien	Von producirten Metallen	Von gehobenen Mineralien	Von producirten Metallen
				£	£
Steinkohlen	Tonnen	98,150,587	—	24,537,646	—
Eisen	"	3,910,045	4,819,254	3,324,804	11,774,220
Blei	"	90,451	67,181	1,153,134	1,433,161
Kupfer	"	198,298	11,888	927,938	1,134,664
Zinn	"	15,686	10,039	867,435	971,273
Zink	"	17,842	4,040	52,478	104,810
Kies	"	114,195	—	71,174	—
Gold (Quarz)	"	4,280	—	—	5,824
Silber	Unzen	—	Unzen 1,664	—	199,335
Erden (ermittelt)	"	—	724,856	774,496	—
„ (veranschlagt)	"	—	—	650,000	—
Metallhaltige Erze und vorher nicht erwähnte Metalle (veranschlagt)	"	—	—	—	150,000
Summa		—	—	32,359,105	15,773,287

Der Gesamtwert der Steinkohlen und Metalle war daher:—

	£
Steinkohlen	24,537,646
Metalle	15,773,287
Erden, mit Ausschluss von Thon und Bausteinen	1,434,496
Summa	41,745,429

Einen ausführlichen Bericht über die Production der verschiedenen Mineralien und Metalle wird man in den statistischen Bemerkungen zu Klasse 40 finden.

(i.) *Petroleum*.—Ueber den Umfang der Production von Petroleum sind noch keine Berichte erlangt worden; aber die Gewinnung dieses mineralischen Oels aus verschiedenen harzigen Erden, in mehreren Theilen des Landes, bildet jetzt ein Geschäft von einiger Bedeutung.

(j.) *Thon und Porcellanerde*.—Die Gesamtproduction von Porcellan, Feuerthon und Porcellanerde im Jahre 1865 wird auf

1,125,924 Tonnen, zu einem Werthe von 373,916*l.*, angegeben.

(k.) *Salz*.—Salz wird in Cheshire, in Worcestershire und in Irland gewonnen. Die Salzwerke in Cheshire können eine Million Tonnen Salz jährlich produciren; die Production der Werke in Worcestershire beläuft sich auf etwa 200,000 Tonnen jährlich. Die Salzproduction in Irland findet in verhältnissmässig geringem Umfange statt.

(l.) *Gewebte Fabricate*.—Die Fabrication gewebter Stoffe wird in dem Vereinigten Königreich in sehr beträchtlichem Umfange betrieben, und von ihrer Grossartigkeit mag die Thatsache eine Vorstellung geben, dass im Jahre 1865, ausser den für den einheimischen Bedarf fabricirten gewebten Stoffen, gewebte Stoffe zu einem Werthe von etwa *sieben und neunzig* Millionen Pfund Sterling aus dem Königreich exportirt wurden.

Die Zahl der Fabriken in dem Vereinigten Königreich wurde in dem letzten Berichte (1861) angegeben wie folgt:—

Arten der Fabriken	Zahl der Fabriken	Zahl der Spindeln	Zahl der Maschinen-Webestühle	Zahl der Arbeiter		Bewegende Pferdekraft	
				Männer	Frauen	Dampf	Wasser
Baumwolle	2,887	30,387,467	399,992	182,556	269,013	281,663	12,467
Flachs	399	1,216,674	14,792	24,616	62,813	31,727	4,354
Seide	771	1,338,544	10,709	15,530	36,899	6,186	864
Wolle	1,679	2,182,609	21,770	49,754	37,229	26,879	9,598
Worsted	532	1,289,172	43,048	31,501	54,562	26,234	1,970
Hanf	5	2,580	1	105	502	127	—
Indischer Hanf	36	32,982	554	2,049	3,918	2,048	60
Strumpfwirkerei	69	—	—	2,162	2,325	447	46
Summary	5,378	36,450,028	490,866	308,273	467,261	375,311	29,359

Einen Bericht über die Production der verschiedenen Branchen des einheimischen Geschäfts mit gewebten Stoffen wird man in den statistischen Bemerkungen zu Klassen 27 bis 31 finden.

(m.) *Andere Industriezweige.*—Eine Beschreibung der verschiedenen Geschäfte und Industriezweige des Königreichs ist in den statistischen Bemerkungen zu den respectiven Klassen gegeben, in welchen die Gegenstände ausgestellt werden.

HANDEL.—Allgemeiner — Handelskammern — Auswärtiger Handel — Einfuhr — Einfuhrzölle — Ausfuhrzölle — Kaufmännische Waaren — Ungemünztes Gold und Silber — Umladungen — Eingeführte Gegenstände — Zurückbehalten zur Consumption und exportirt — Hafenhandel.

(a.) *Handel.*—Mit Ausnahme des Handels mit geistigen Getränken, Malz und raffinirtem Zucker, welche, in Bezug auf die Erhebung der Steuern und die Bewilligung von Rabatt, einer gewissen Aufsicht seitens der Regierung unterworfen sind, ist der Handel in allen seinen Branchen vollkommen ungefesselt und frei; und Jedermann kann irgend ein Geschäft betreiben, wann und wo er will, vorausgesetzt, dass er nicht gegen die allgemeinen Landesgesetze verstösst.*

Die drei grossen, mit dem Handel in Verbindung stehenden, Volksklassen sind die Producenten und Fabricanten, die Kaufleute und Agenten und die Handelsleute, welche, als Gross- und Kleinhändler, die Consumenten mit Waaren versorgen. Der Regel nach befindet sich die Hauptmasse des auswärtigen Handels von England in den Händen der Kaufleute ('merchants'), welche entweder die Waaren der Fabricanten auf das Risiko der Letztern verkaufen oder die Waaren der Fabricanten kaufen und auf eigene Rechnung verkaufen. Im ersteren Falle wird dem Kaufmann eine Commission auf den Verkauf bewilligt, im letztern ein ansehnliches Disconto auf den Preis der Waaren.

(b.) *Handelskammern.* — Handelskammern bestehen in den meisten grossen Städten und Fabrikmittelpunkten Grossbritanniens. Sie sind zusammengesetzt aus den angesehensten Fabricanten und Kaufleuten des Ortes, wo sie ihren Sitz haben, und wachen nicht allein über die Interessen der Handels- und Fabrikzweige, mit welchen sie in besonderer Verbindung stehen, sondern betheiligen sich im allgemeinen an sämtlichen den Handel des Landes betreffenden Angelegenheiten. Eine Jahresversammlung der vereinigten Handelskammern findet im Frühling jedes Jahres in London statt.

(c.) *Auswärtiger Handel.*—Der auswärtige Handel des Vereinigten Königreichs, welcher mit allen Welttheilen betrieben wird, hat während der letzten zehn Jahre grosse Fortschritte

gemacht; denn der Werth der Einfuhr ist von ein hundert und zwei und siebenzig Millionen Pfund Sterling auf zwei hundert und siebenzig Millionen und die Gesamtausfuhr während desselben Zeitraums von ein hundert und neun und dreissig Millionen auf zwei hundert und achtzehn Millionen gestiegen. Es ist nicht der Zweck dieser Bemerkungen, die Einzelheiten jedes besondern Handelszweiges anzugeben, aber es mag von Interesse sein, im allgemeinen auf den Gesamtbetrag des Handels hinzuweisen, welcher zwischen dem Vereinigten Königreich und den bedeutendsten Staaten der Welt stattfindet.

(d.) *Einfuhr.*—Was die Einfuhr betrifft, so lieferten die folgenden Länder den Hauptbedarf während der Jahre 1861 und 1865:—

Länder	1861	1865
	£	£
Russland	12,822,000	17,383,000
Preussen	6,440,000	6,126,000
Hansestädte	6,058,000	8,837,000
Holland	7,692,000	12,413,000
Belgien	3,817,000	7,354,000
Frankreich	17,826,000	31,625,000
Spanien	4,458,000	4,769,000
Italien	2,478,000	2,486,000
Türkei	3,632,000	5,405,000
Egypten	8,398,000	21,773,000
China	8,608,000	10,499,000
Vereinigte Staaten	49,389,000	21,624,000
Peru	3,169,000	4,002,000
Chili	2,416,000	3,798,000
Brasilien	2,631,000	6,797,000
Britische Besitzungen	52,676,000	72,840,000

Die Abnahme, welche in den Zahlen für die Vereinigten Staaten bemerkbar ist, bedarf keiner Erklärung. Die Zunahme in der Einfuhr aus der Türkei, Egypten, China, Brasilien und den Britischen Besitzungen rührt grossentheils her von der vermehrten Einfuhr roher Baumwolle aus jenen Ländern, während der Abwesenheit der Zufuhr aus Amerika.

Die bemerkenswerthe Zunahme in der Einfuhr aus Frankreich ist dem vermehrten Handelsverkehr zuzuschreiben, welcher seit dem Abschluss des Handelsvertrags von 1860 zwischen beiden Ländern in's Leben getreten ist.

(e.) *Einfuhrzölle.*—Die nachstehende Tabelle zeigt die Einfuhrzölle, welche gegenwärtig auf alle Arten auswärtiger Erzeugnisse in dem Vereinigten Königreich erhoben werden:—

Liste der Gegenstände, welche in dem Vereinigten Königreich dem Einfuhrzoll unterworfen sind.

Gegenstände	Zollfuss £ s. d.
Bier und Ale, Mumme und Sprossenbier	} Fass 1 0 0
Spielkarten, ein Dutzend Packete	
Cichorien und Substitute dafür:	
Rohe oder gedarrte	Centner 1 6 6
Geröstete oder gemahlene	} Pfund 0 0 4
Chloroform	
Cacao	„ 0 0 1
Hülsen und Schalen	Centner 0 2 0
Teig oder Chocolate	Pfund 0 0 2

* Die Verfertiger und Verkäufer gewisser Artikel bedürfen dazu eines Erlaubnisscheines ('excise license'), den man ihnen ohne die geringste Schwierigkeit gestattet.

Gegenstände		Zollfuss	£	s.	d.
Kaffee, roher . . .	Pfund	0	0	3	
Gedarrter, gerösteter oder gemahlener	"	0	0	4	
Collodion . . .	Gallone	1	4	0	
Conditorwaaren, Succade etc.	Pfund	0	0	1	
Korn und alle Arten von Getreide . . .	Centner	0	0	3	
Alle Arten von Mehl, Tapioca, Sago, Arrow- root, Semolina etc. und Pulver und Stärke	"	0	0	4½	
Getrocknete Früchte: Co- rinthen, Feigen, Feigen- kuchen, Pflaumen etc.	"	0	7	0	
Würfel . . .	das Paar	1	1	0	
Sprossenessenz . . .	10% ad val.				
Aether . . .	Gallone	1	5	0	
Malz . . .	Quart	1	5	0	
Verdichtete und einge- machte Milch (besteuert in Verhältniss zu dem da- rin enthaltenen Zucker)	Centner	0	5	0	
Goldgeschirr . . .	Unze Troy	0	17	0	
Silbergeschirr, vergoldet oder nicht	"	0	1	6	
Alcohol und Alcohol ent- haltende Gegenstände:					
Nicht gesüsst:					
Brandy und Wach- holder-Branntwein	Pr. Gall.	0	10	5	
Aus fremden producirenden Ländern	" "	0	10	2	
Rum { Aus nicht pro- ducirenden Ländern	" "	0	10	5	
Tafia — aus irgend einer Französischen Colonie . . .	" "	0	10	2	
Rum und andere geistige Getränke aus Britischen Be- sitzungen . . .	" "	0	10	2	
Unaufgezählt . . .	" "	0	10	5	
Gesüsst:					
Gesüsst oder gemischt mit Einschluss von Liqueuren . . .	" "	0	10	2	
Parfümirte Essenzen zu Parfümerien . . .	" "	0	14	0	
Eau de Cologne in Flaschen (30 auf die Gallone) . . .	Flasche	0	0	6	
Zucker:					
Candis und Raffinade	Centner	0	12	0	
Weisser Farin- oder diesem an Qualität gleich . . .	"	0	11	3	
Gelber Rohzucker und brauner Farin- . . .	"	0	10	6	
Brauner Rohzucker . . .	"	0	9	7	
Andere dem braunen Rohzucker an Qua- lität nicht gleiche Arten . . .	"	0	8	0	

Gegenstände		Zollfuss	£	s.	d.
Zuckerrohrsaft . . .	Centner	0	8	0	
Melasse . . .	"	0	3	6	
Thee . . .	Pfund	0	0	6	
Taback, nicht fabricirter:					
Gestaucht oder nicht:					
10 Pfund und mehr Feuchtigkeit auf 100 Pfund Gewicht ent- haltend . . .	"	0	3	0	und 5%
Weniger als 10 Pfund Feuchtigkeit enthal- tend . . .	"	0	3	6	
Fabricirt:					
Cigarren . . .	"	0	5	0	
Cavendish oder Ne- gerkopf . . .	"	0	4	6	
Schnupftaback, mehr als 13 Pfund Feuch- tigkeit auf je 100 Pfund Gewicht ent- haltend . . .	"	0	3	9	
Schnupftaback, mit weniger als 13 Pfund Feuchtigkeit	"	0	4	6	
Andere Arten fab- ricirten Tabacks	"	0	4	0	
Cavendish oder Neger- kopf, in den Docks des Vereinigten Kö- nigreichs, aus nicht fabricirtem Taback gemacht . . .	"	0	4	0	
Firniss, Alcohol ent- haltend . . .	Gallonen	0	12	0	
Essig . . .	"	0	0	3	
" darin eingemachte Pickles . . .	"	0	0	1	
Wein und Weinhefen:					
Weniger als 26 Grad 'proof spirit' ent- haltend . . .	"	0	1	0	
24 Grad und weniger als 42 Grad enthaltend . . .	"	0	2	6	
Und eine Steuervermehrung von 3d. per Gallone für jeden Stärkegrad über 41.					

(f.) *Ausfuhr*.—Die wichtigsten Länder, nach welchen in den Jahren 1861 und 1865 eine Ausfuhr stattfand, waren:—

Länder	1861	1865
	£	£
Russland . . .	5,765,000	6,180,000
Preussen . . .	4,057,000	4,010,000
Hansestädte . . .	13,046,000	22,984,000
Holland . . .	10,989,000	14,960,000
Belgien . . .	4,914,000	6,896,000
Frankreich . . .	17,427,000	25,355,000
Spanien . . .	3,386,000	3,015,000
Türkei . . .	3,104,000	5,847,000
Egypten . . .	2,398,000	6,168,000
China . . .	3,161,000	3,688,000
Vereinigte Staaten . . .	11,025,000	25,170,000
" im Jahre 1860	22,907,000	
Brasilien . . .	4,690,000	5,771,000
Britische Colonien . . .	45,139,000	51,546,000

(g.) *Ausfuhrsteuern.* — Alle Gegenstände sind frei von Steuern für die Ausfuhr aus dem Vereinigten Königreich.

(h.) *Handel im allgemeinen.* — Den allgemeinen Fortschritt des Englischen Handels stellen die folgenden Tabellen dar.

1. *Kaufmännische Waaren.* — Der Gesamtwert der Einfuhr zur Consumption und der Ausfuhr einheimischer Erzeugnisse stand während der letzten zehn Jahre wie folgt:—

Jahre	Einfuhr			Ausfuhr Britischer und Irischer Er- zeugnisse
	Gesamt- summe	Rück- exportirt	Zum Verbrauch geblieben	
	£	£	£	£
1856	172,544,000	23,393,000	149,151,000	115,827,000
1857	187,844,000	24,108,000	163,736,000	122,066,000
1858	164,584,000	23,174,000	141,410,000	116,608,000
1859	179,182,000	25,281,000	153,901,000	130,411,000
1860	210,531,000	28,630,000	181,901,000	135,891,000
1861	217,485,000	34,529,000	182,956,000	129,103,000
1862	225,717,000	42,176,000	183,541,000	128,992,000
1863	248,919,000	50,300,000	198,619,000	146,602,000
1864	274,952,000	52,139,000	222,813,000	160,449,000
1865	271,072,000	52,996,000	218,076,000	165,836,000

Die Abnahme in dem allgemeinen Handel des Jahres 1858 wurde durch die Handelskrise von 1857 verursacht und die Abnahme in dem Ausfuhrgeschäft der Jahre 1861–62 durch den Amerikanischen Krieg und die Baumwollentheuerung.

2. *Ungemünztes Gold und Silber.* — Der Gesamtwert der Einfuhr und der Ausfuhr ungemünzten Goldes und Silbers in dem Vereinigten Königreich seit dem Jahre 1858 (dem ersten, für welches die Einfuhr registrirt wurde) betrug:—

	Einfuhr £	Ausfuhr £
1858	29,493,000	19,628,000
1859	37,070,000	35,688,000
1860	22,978,000	25,534,000
1861	18,747,000	20,811,000
1862	31,656,000	29,326,000
1863	30,030,000	26,544,000
1864	27,728,000	23,132,000
1865	21,462,000	15,092,000

3. *Umladungen* ('Transhipments'). — Dieser Geschäftszweig, welcher in den obigen Berichten nicht einbegriffen ist, hat während der letzten zehn Jahre bedeutend zugenommen. Der Gesamtwert fremder Waaren, welche im Jahre 1856 in den Häfen des Vereinigten Königreichs umgeladen wurden, betrug nur 4,579,000*l.* und im Jahre 1865 6,469,000*l.*

Der Betrag des allgemeinen und des speciellen Handels des Landes kann aus den obigen Tabellen leicht ermittelt werden.

(i.) *Eingeführte Gegenstände.* — Die Hauptmasse der Einfuhr besteht aus Nahrungsmitteln und aus Rohmaterialien zur Fabrication. Die einzigen fabricirten Waaren welche, in grossem Massstabe eingeführt werden, sind Seiden, Leder und Wollenstoffe. Berichte über den Werth

der verschiedenen für den einheimischen Bedarf gekauften Gegenstände sind nicht vorhanden aber ihr Werth kann annähernd bestimmt werden, indem man den Werth der Rückausfuhr fremder Waaren von dem der Gesamteinfuhr abzieht. Die nachstehende Tabelle zeigt den Werth der Einfuhr, der Rückausfuhr und der wichtigsten Gegenstände, welche für den einheimischen Verbrauch übrig blieben, für das Jahr 1865:—

Hauptgegenstände	Gesamteinfuhr £	Rückexportirt £	Zum Verbrauch geblieben £
1. <i>Nahrungsmittel, Getränke u. s. w.</i>			
Thiere			
Ochsen	4,401,482	70	4,401,412
Schafe und Lämmer	1,787,866	272	1,787,594
Speck und Schinken	2,133,705	12,756	2,120,949
Rindfleisch	421,461	16,872	404,589
Butter	5,945,884	75,393	5,870,491
Käse	2,463,299	30,992	2,432,307
Cacao	234,655	101,315	133,340
Coffee	4,600,887	3,249,534	1,351,353
Korn und Mehl	20,724,115	32,576	20,691,539
Eier	928,247	—	928,247
Fische	514,712	51,703	463,009
Obst	2,848,830	232,228	2,616,602
Hopfen	459,157	18,236	440,921
Schmalz	468,398	7,382	461,016
Olivenöl	1,684,852	67,855	1,616,997
Schweinefleisch	576,988	13,615	563,373
Kartoffeln	161,907	14	161,893
Geflügel	148,642	120	148,522
Reis	1,347,494	959,952	387,542
Sago	121,285	7,407	113,878
Gewürze	634,278	458,118	176,160
Geistige Getränke	1,700,487	481,735	1,218,752
Zucker und Melasse	13,025,903	662,378	12,363,530
Thee	10,044,462	2,719,454	7,325,008
Taback und Cigarren	3,329,309	732,437	2,596,872
Wein	3,914,196	620,034	3,294,162
Hefen, getrocknet	232,228	8	232,220
2. <i>Rohmaterialien für Fabrikwaaren.</i>			
Perl- und Pottasche	226,378	6,469	219,909
Baumrinde, zum Färben oder Gerben	167,133	2,231	164,902
Knochen	429,023	46	428,977
Schwefel	359,016	9,739	349,277
Borsten	328,317	22,643	305,674
Caoutchouc, roh	530,538	193,638	336,900
Cochenille	455,668	317,693	137,975
Kupfererz	2,699,064	17,479	2,681,585
Kupfer, unverarbeitet	2,049,615	852,489	1,197,026
Rohes Kork	198,516	20,100	178,416
Rohes Baumwolle	66,032,193	18,834,258	47,197,935
Rohes Flachs	5,369,719	127,399	5,242,320
Guano	2,675,995	105,292	2,570,703
Gummi	729,877	436,908	292,469
Rohes Gutta-Percha	160,565	9,137	151,428
Haar:			
Ziegen-	837,322	—	837,322
Pferde-, Kuh-etc.	371,366	29,947	341,419
Rohes Hanf	1,744,482	252,320	1,492,162
Häute, roh oder gegerbt	3,073,447	767,770	2,305,677
Indigo	2,003,900	2,005,006	—
Stangeneisen	584,082	109,369	474,713
Eisen, Stahl, unverarbeitet	100,696	11,084	89,612

Hauptgegenstände	Gesamteinfuhr	Rück-exportirt	Zum Verbrauch geblieben
2. Rohmaterialien (Fortsetzung)	£	£	£
Rohes Ind. Hanf . . .	1,774,992	351,801	1,423,191
Blei, in Klumpen und Platten . . .	670,694	7,744	662,950
Grapp etc.	741,807	5,344	735,963
Braunsteinerz	165,894	71	165,823
Nastron	663,807	27,539	636,268
Oel (ausg. Oliven) . . .	4,158,779	903,777	3,255,002
Oelkuchen	859,782	34	859,748
Pech und Theer	165,063	14,645	140,418
Kies	510,295	542	509,753
Lumpen etc. zur Papierfabrication . . .	655,581	24,314	631,267
Harz	461,952	16,465	445,487
Salpeter	384,574	29,167	355,407
Samen:			
Klee	722,516	67,554	654,962
Flachs- und Leinsamen	3,983,243	407,968	3,575,275
Raps	629,745	259,451	370,294
Baumwolle	836,744	13,423	823,321
Sumach	190,407	61,364	129,043
Seide, roh und Abfall . . .	10,958,467	4,158,814	6,799,653
Silbererz	382,391	18,321	364,070
Hüte und Pelze	1,816,471	550,127	766,344
Zink	702,060	84,050	618,010
Talg	3,125,282	94,174	3,031,108
Elephantenzähne	322,286	207,014	115,272
Terra Japonica	375,345	—	375,345
Zinn, unverarbeitet . . .	529,803	166,442	333,361
Valonia	320,460	1,057	319,403
Brenn- und Bauholz:			
Nicht gesägt oder gespalten und Teak . . .	5,570,304	94,977	5,475,327
Bretter, Balken, gesägt oder gespalten . . .	6,559,931	86,908	6,473,023
Stäbe	649,610	12,983	626,627
Andere Arten	517,468	—	517,468
Färbehölzer	238,309	24,845	213,464
Harthölzer	661,943	48,605	613,338
Wolle, Schaf-, Lamm- etc.	14,930,430	5,889,082	9,041,348
Wollen- und Worsted-Garn . . .	998,784	3,163	995,621
3. Fabricirte Gegenstände u. s. w.			
Perlen und Corallen von Glas . . .	178,310	109,285	69,025
Bücher	119,486	5,110	114,376
Stearinlichter	148,247	88,920	59,327
Porcellanwaaren	166,098	4,202	161,896
Uhren	473,753	14,110	459,643
Baumwollenfabricate . . .	759,358	198,746	560,612
Künstliche Blumen	299,427	681	298,793
Glaswaaren	620,991	12,892	608,099
Haarfabricate	249,696	117,017	132,697
Strohüte	556,065	7,014	549,051
Spitzen	167,706	17,089	150,617
Lederwaaren	1,219,194	26,657	1,192,537
Linnenfabricate	153,104	43,523	109,581
Musikalische Instrumente . . .	243,813	12,551	231,262
Papier jeder Art (ausgenommen Tapeten) . . .	494,222	11,298	482,924
Tapeten	23,873	773	23,100
Flechtwerk jeder Art	133,111	175	132,936
Seidenstoffe	8,496,825	166,936	8,329,889
Spielwaaren	163,024	9,524	153,500
Wollfabricate	1,891,104	113,025	1,778,079

(j.) *Exportirte Gegenstände.*—Das Ausfuhrgeschäft des Königreichs umfasst die in der vorstehenden Tabelle aufgeführten und im Inlande producirtten Gegenstände. Die Ausfuhr Britischer Erzeugnisse besteht hauptsächlich in Fabrikwaaren, Mineralien und Metallen. Der Werth der Webfabricate allein machte etwa 60 Procent der Gesamtausfuhr des Jahres 1865 aus. Die nachstehende Tabelle zeigt den Werth der wichtigsten während dieses Jahres ausgefuhrten Gegenstände:—

Hauptgegenstände	Werth £
Landwirthschaftliche Geräthe . . .	210,300
Alkali, Soda	1,123,946
Schiffsgeräth und Matrosenkleidung . . .	2,639,012
Waffen und Munition	1,134,256
Speck und Schinken	118,859
Säcke, leere	696,291
Rindfleisch und Schweinefleisch . . .	39,774
Bier und Ale	2,060,976
Gedruckte Bücher	511,888
Messing	232,309
Butter	333,228
Stearinlichter	110,575
Kutschen	352,787
Cement	285,898
Käse	111,102
Kohlen, Cokes und Cinders	4,427,177
Kupfer, unverarbeitet	496,148
" verarbeitet	2,432,062
Seile und Bindfaden	414,213
Korn und Mehl	274,636
Baumwollengarn	10,342,737
Baumwollenwaaren:	
Stückwaaren, weiss oder einfach . . .	27,791,035
" gedruckt, gefärbt oder bunt . . .	17,085,328
Spitzen und Netze	465,611
Strümpfe	240,534
Nähzwirn	753,326
Strumpfwirker- und Kurzwaaren . . .	587,550
Arzneien und chemische Erzeugnisse (unaufgezählt) . . .	919,256
Irdenes Geschirr und Porcellan . . .	1,442,197
Fische, Häringe	506,233
" andere Arten	185,005
Möbel, Kunsttischler- und Tapezierer-Waaren	289,887
Glas, Spiegel	71,387
" Flint	302,105
" Fenster	60,857
" gewöhnliche Flaschen	310,245
Kurzwaaren und Putzmacherwaaren	5,030,740
Eisen- und Messerschmiedewaaren jeder Art	4,326,741
Hüte jeder Art	483,594
Pferde	185,367
Eisen, altes	12,587
" Block- und Schmiedestangen- (ausgenommen Eisenbahnschienen), Winkel-, Bolzen- und Rundeisen	1,599,491
"	2,199,837

Hauptgegenstände	Werth
Eisen, Eisenbahnschienen jeder Art	£3,550,563
„ Gusseisen und gusseiserne Waaren	792,581
„ Draht und Drahtwaaren	474,005
„ Reifen, Eisenblech und Kesselpplatten	1,603,964
„ verarbeitetes, anderer Art	2,456,202
„ Stahl, Stangen und Platten	782,129
Juwelierwaaren	164,231
Indisches Hanfgarn	82,141
„ Waaren	311,540
Blei, Block, Röhren, Platten	581,684
„ Bleigelt, Bleiroth, Bleibutter und Bleiglätte	186,123
Leder, gegerbt, unverarbeitet	409,249
„ verarbeitet, Stiefeln u. s. w.	1,462,105
„ von anderen Arten	240,299
„ Sattlerarbeit und Pferdegeschirr	350,531
Linnengarn	2,535,321
Linnenwaaren :	
Weiss oder einfach	7,126,330
Gedruckt, gewürfelt oder gefärbt	606,040
Battist oder Linon	300,201
Damast und Tellertuch	111,040
Segelzeug	382,713
Nähgarn	558,444
Andere Arten	72,222
Maschinerie, Dampfmaschinen	1,958,533
„ andere Arten	3,264,100
Samenöl	1,547,683
Malerfarben	473,051
Tapeten	109,320
„ andere Arten	447,741
Eingezalzenes und Saucen	328,381
Gold- und Silbergeschirr	62,532
Plattirte Waaren	112,452
Lebensmittel, vorher nicht erwähnte	308,052
Salz	274,631
Seide, Wurf-	477,590
„ Schnur und Garn	289,468
Seidenwaaren :	
Breite Seidenstoffe	550,852
Tücher und Shawle	251,786
Bänder	120,504
Andere Arten	481,239
Seife	184,279
Geistige Getränke, Britische	244,104
Schreibmaterialien, ausser Papier	405,067

Hauptgegenstände	Werth
Zucker, Raffinade	£249,677
Telegraphen-Draht und Apparate	148,679
Zinn, unverarbeitet	498,570
„ Platten	1,481,098
Wolle, Schaf- und Lamm-	901,660
Woll- und Worsted-Garn	5,429,504
Wollen- Fabricate :	
Tuch, Flus etc.	4,023,954
Flanell, Decken und Baize	1,203,127
Worsted-Stoffe	13,360,527
Teppiche und Drogets	861,453
Andere Arten	655,669
Zink, verarbeitet und unverarbeitet	94,659
Alle andern Gegenstände	6,700,238
Summa	165,835,725

(k.) *Hafenhandel*.—Es sind keine Berichte über den Werth der Einfuhr in die wichtigsten Häfen des Königreichs vorhanden. Die Haupthäfen, in welchen Britische Waaren zur Ausfuhr verschifft werden, sind Liverpool, London, Hull, Grimsby, Southampton, Newcastle, Hartlepool, Folkestone, und Cardiff, in England und Wales; und Glasgow und Leith in Scotland. Die Irischen Fabricate werden meistens von Liverpool ausgeführt. Von der Gesamtausfuhr des Jahres 1865 gingen 66 Procent aus den Häfen von Liverpool und London.

BINNENHANDEL.—Die einzigen, über den Betrag des Binnenhandels vorhandenen, Berichte sind diejenigen, welche sich auf die Eisenbahnen und den Küstenhandel beziehen.

Der gesammte Tonnengehalt der Schiffe, welche während der fünf Jahre 1861–65 in dem Vereinigten Königreich beschäftigt waren, kaufmännische Waaren längs der Küste zu transportiren, betrug:—

	Britische Schiffe	Fremde Schiffe	Summa
	Tonnen	Tonnen	Tonnen
1861	17,261,779	93,456	17,355,235
1862	17,397,687	72,673	17,470,360
1863	17,465,635	81,897	17,547,532
1864	17,350,579	66,107	17,416,686
1865	18,150,649	77,705	18,228,354

Die nachstehende Tabelle zeigt den Betrag des Güterverkehrs auf den Eisenbahnen der drei Provinzen des Königreichs, während der Jahre 1864 und 1865:—

	In England und Wales	In Schottland	In Irland	Vereinigtes Königreich
	Tonnen	Tonnen	Tonnen	Tonnen
Allgemeiner Handel	{ 1864 28,802,262 1865 30,640,967	{ 4,577,483 4,487,135	{ 1,535,168 1,659,536	{ 34,914,913 36,787,638
Kohlen, Cokes und andere Mineralien	{ 1864 61,899,054 1865 63,892,007	{ 13,245,363 13,556,710	{ 310,364 357,069	{ 75,445,781 77,805,786
Viehstand:	Anzahl	Anzahl	Anzahl	Anzahl
Rindvieh:	{ 1864 2,083,254 1865 1,874,020	{ 482,656 488,762	{ 427,447 407,048	{ 2,993,357 2,769,830
Schafe	{ 1864 6,786,127 1865 7,001,654	{ 1,241,279 1,819,125	{ 428,275 515,632	{ 8,455,681 9,336,411
Schweine	{ 1864 1,426,264 1865 1,448,731	{ 65,329 88,388	{ 733,155 887,577	{ 2,224,748 2,424,696

SCHIFFFAHRT.—(a.) *Fremder Handel.*—Der gesammte Tonnengehalt der Schiffe, welche (mit Ladung und in Ballast) während der Jahre

1856, 1860 und 1865 in dem auswärtigen Handel des Vereinigten Königreichs beschäftigt waren, betrug:—

Jahre	Eingelaufen			Gelöscht			Summa		
	Britische	Fremde	Summa	Britische	Fremde	Summa	Britische	Fremde	Summa
	Tonnen	Tonnen	Tonnen	Tonnen	Tonnen	Tonnen	Tonnen	Tonnen	Tonnen
1856	6,390,715	4,162,419	10,553,134	6,555,056	4,480,859	11,035,915	12,945,771	8,643,278	21,589,049
1860	6,889,009	5,283,776	12,172,785	7,025,914	5,490,593	12,516,507	13,914,923	10,774,369	24,689,292
1865	9,623,432	4,694,454	14,317,886	9,735,523	4,843,683	14,579,206	19,358,955	9,538,137	28,897,092

(b.) *Küstenhandel.*—Eine sehr grosse Anzahl von Schiffen ist mit dem Küstenhandel des Landes beschäftigt. Fremde Schiffe sind seit dem Jahre 1854 zu dem Küstenhandel zugelassen worden, und die beigefügte Tabelle zeigt den Fortschritt des Handels seit dem Jahre 1856:

Tonnengehalt der Schiffe (mit Ladungen), welche mit dem Küstenhandel beschäftigt sind.

	Britische	Fremde	Summa
1856	15,164,000	53,000	15,217,000
1865	18,150,000	78,000	18,228,000

(c.) *Tonnengehalt der Schiffe des Vereinigten Königreichs.*—Der gesammte registrierte Tonnengehalt der zum Vereinigten Königreich gehörenden Schiffe betrug am 31. December 1865 4,936,776 Tonnen für Segelschiffe und 823,533 für Dampfschiffe. Die Gesamtzahl der Matrosen betrug 255,654.

POSTAMT.—In dem letzten Bericht des Generalpostmeisters wird erklärt, dass die stätige Zunahme der Geschäfte des Postamts während einer langen Reihe von Jahren uns allen Grund giebt, zu erwarten, dass, wenn der Wohlstand des Landes nicht abnimmt, das Postamt, ohne irgendwie in seinen Bemühungen nachzulassen, den gerechten Wünschen des Publicums genugzuthun, oder mit dem wachsenden Verlangen nach Verbesserungen Schritt zu halten, in wenigen Jahren ein reines Einkommen erzielen kann, welches dem gegenwärtigen Betrag der Einkommensteuer beinahe gleichkommt.

Die Zunahme in dem Einkommen der zehn Jahre von 1856 bis 1865 betrug:—

	Gesamt-Posteinnahme	Gesamt-Postamtausgabe	Netto-Einnahme
1856	£ 3,035,954	£ 2,438,732	£ 597,222
1865	4,423,608	2,941,086	1,482,522
Zunahme, 1865, im Vergleich mit 1856	1,387,654	502,354	885,300

Diese Zunahme war eine Folge der dem Volke durch die Herabsetzung der Brieftaxe, Vermehrung von Postämtern, Briefkasten und rascher Briefbeförderung gewährten Vortheile.

Die jetzigen Postpreise für's Inland sind folgende:—

Für Briefe, weniger als eine halbe Unze wiegend	1d.
Ueber $\frac{1}{2}$ oz. bis zu 1 oz.	2d.
„ 1 oz. bis zu $1\frac{1}{2}$ oz.	3d.
„ $1\frac{1}{2}$ oz. bis zu 2 oz.	4d.

und so fortsteigernd, allemal einen extra Penny für jede hinzugefügte halbe Unze oder einen Theil derselben.

Zu gleicher Zeit erleichterte man Postversendungen von Büchern, Drucksachen und Manuscripten, wie die folgenden Preise darthun:—

Unter 4 oz.	1d.
„ 8 oz.	2d.

Und 2d. für jede hinzugefügten 8 oz. Die Pakete dürfen nicht über 24 Zoll lang sein.

Muster oder Proben unter 24 oz. können gleichfalls, wenn frankirt, durch die Post befördert werden und zahlen: Unter 4 oz., 2d.; unter 8 oz., 4d.; unter 1 lb., 1d.; und unter 24 oz., 1s.

Die folgende Tabelle giebt die Anzahl von Briefen, Zeitungen, Bücherpacketen und Probenmustern an, welche im Jahre 1865 durch die Posten befördert wurden:—

Provinzen	Briefe	Zeitungen	Probenmuster
England und Wales	Zahl 597,277,616	Zahl 73,192,132	Zahl 940,771
Schottland	67,048,891	11,324,040	175,474
Irland	56,140,500	12,736,594	169,871
Das Vereinigte Königreich	720,467,007	97,252,766	1,286,116

Ein Hauptzweig der Postverwaltung bildet die für Geldversendungen bestimmte Abtheilung ('Money Order Department'). Für eine geringe Steuer kann nämlich der Sender sein Geld, ohne die geringste Gefahr, durch's ganze Königreich von einem Postamte zum andern versenden. Dies Geldsendungs-System besteht auch zwischen dem Vereinigten Königreich und verschiedenen Colonien; auch gedekt man dasselbe auf andere fremde Länder auszudehnen. Der Gesamtbetrag der im Jahre 1865 im Vereinigten Königreich ausgegebenen 'money orders' belief sich auf 17,829,290l. und der ausbezahlt auf 18,144,550l.

TELEGRAMME.—Es giebt keine vollständigen Angaben über die Anzahl der jährlich in den

verschiedenen Landestheilen versendeten Telegraphen. Die Statistiken von den electrischen Telegraphen finden sich, in so weit dies thunlich war, unter der Rubrik 'Electrische Telegraphen' angegeben.

DIE ARMEE. — Regelmässige und Hülfs-truppen.

(a.) *Die regelmässige Heeresmacht.* — Die Gesamtstärke der Britischen Armee auf Britischem Boden war, den Berichten von 1866–67 zu Folge, 137,195 jeden Ranges, und 65,287

jeden Ranges dienten in Indien und erhielten ihren Sold von der Indischen Regierung. Die Unterhaltungskosten für 178 in Lebuau dienende Indische eingeborne Truppen bestritt gleichfalls die Britische Regierung. Die folgende Tabelle giebt die Anzahl der in den verschiedenen Branchen der Armee dienenden Officiere und Soldaten so wie auch die der Pferde an. Nur darf man nicht vergessen, dass diese Truppen sich nicht alle im Vereinigten Königreich befinden; eine bedeutende Anzahl dient in den verschiedenen Colonien und Staatsbesitzungen.

<i>Auf Britischem Boden.</i>					Officiere	Unter-officiere	Mannschaft	Summa	Anzahl von Pferden
Regimenter :									
Königliche Reitende Artillerie	.	.	.	.	86	132	1,720	1,938	1,356
Reitschulen	.	.	.	.	7	13	205	225	122
Leibgarde, Reitende Garde	.	.	.	.	99	192	1,029	1,320	825
Cavallerie	.	.	.	.	578	1,035	8,415	10,028	5,889
Königliche Artillerie	.	.	.	.	799	1,712	14,250	16,761	2,421
Königliches Geniecorps	.	.	.	.	398	374	3,918	4,690	307
Kriegsgeschütz-Train	.	.	.	.	92	183	1,521	1,796	926
Fussgarde	.	.	.	.	257	446	5,250	5,953	—
Infanterie der Linie	.	.	.	.	3,740	6,914	65,510	76,164	—
Kriegs-Hospital-Corps	.	.	.	.	1	220	779	1,000	—
Commissariat-Stabs-Corps	.	.	.	.	1	112	488	601	—
Kriegsvorrath-Stabs-Corps	.	.	.	.	1	31	168	200	—
Westindische Regimenter	.	.	.	.	196	271	3,000	3,467	—
Colonie-Corps	.	.	.	.	157	326	3,586	4,069	450
					6,412	11,961	109,839	128,212	12,366
Depots in dem Vereinigten Königreich von den in Indien stehenden Regimentern					437	974	7,572	8,983	460
Gesamtstärke auf Britischem Boden					6,849	12,935	117,411	137,195	12,826
Generalstab					93	—	—	93	—
Anstalten (ausschliesslich gewisser in den Regimentern einberufenen Officiere) : Recrutirung, Unterricht in der Geschütz-Wissenschaft etc.					178	278	92	548	28
Erziehungs-Anstalten					30	241	10	281	—
Gesamtstärke, deren Kosten aus dem Armeefonds bestritten werden					7,150	13,454	117,513	138,117	12,854
<i>Britische Heeresmacht in Indien, aus dem Indischen Einkommen bestritten.</i>									
Königliche Reitende Artillerie	.	.	.	.	200	249	2,680	3,129	—
Cavallerie der Linie	.	.	.	.	352	603	4,466	5,421	—
Königliche Artillerie	.	.	.	.	699	790	8,140	9,629	—
Königliches Geniecorps	.	.	.	.	336	—	—	336	—
Infanterie der Linie	.	.	.	.	2,028	3,664	41,080	46,772	—
Summa					3,615	5,306	56,366	65,287	—

(b.) *Hülfsstruppen.* — Diese sind die Miliz ('militia'), die berittene Landmiliz ('yeomanry'), die Freiwilligen ('volunteers'), die angeworbenen Pensionäre und das Armee-Reservecorps.

Die Miliz besteht aus einem permanenten Stab von 5,070 Officieren und Unterofficieren. Das Corps wird alljährlich einberufen, um 27 Tage lang einexercirt zu werden; die etwaige Zahl schätzt man dieses Jahr auf 3,507 Officiere, 5,464 Unterofficiere und 120,000 Gefreite.

The Yeomanry-Cavallerie besteht aus einem permanenten Stabe von 390 Officieren und Unterofficieren. Das Corps thut jährlich acht Tage lang Dienst; seine Stärke, alle einberufen, giebt man dieses Jahr auf etwa 16,000 Mann an.

Die Freiwilligen bestehen aus Artillerie, leichter Reiterei, dem Genie- und Schützen-corps. Die Artilleristen erhalten von der Regierung 30s., die in der leichten Reiterei, dem Genie- und Schützen-corps dienenden 20s. per Kopf, vorausgesetzt, dass sie jedes Jahr die vorgeschriebenen Uebungen durchmachen. Die Gesamtzahl wird auf 130,000 bis 140,000 Mann geschätzt.

KÖNIGLICHE SEEMACHT ('ROYAL NAVY'). — Flotte — Küstenwache — Seesoldaten — Schiffe.

Der folgende Bericht über die Stärke der königlichen Seemacht ist dem Seemacht-Bericht ('Navy Estimates') von 1866–67 entlehnt.

(a.) Flotte—auf der See Dienende.

Flaggenofficiere (Commissionirte)	Zahl 210
Officiere in den Schiffswerften ('dock-yards') und andern Seeanstalten	57
Commissionirte and andere Officiere, höher stehend als die untergeordneten ('subordinates')	3,676
Untergeordnete Officiere	801
Vollmachts- ('warrant') Officiere (solche, die ohne Officiersrang eine gewisse Autorität ausüben)	1,110
Niedere Officiere ('petty officers') und Matrosen	31,446
Knaben, mit Einschluss der 2,750 auf den Bildungs-Schiffen ('training-ships') befindlichen	7,000
	44,300

(b.) Küstenwache-Dienst.

Auf der See—Officiere, Matrosen und Knaben.	Zahl 2,950
Nicht auf der See—Officiere und Soldaten	4,200

Civilisten	550
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(c.) Marinetruppen ('Marines').

Stabsofficiere	120
Officiere, activ (Commissionirte)	420
Unterofficiere und Gefreite	15,860

Gesamtzahl (für den activen Seedienst, 8,000; nicht auf der See, 8,400)	16,400
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Gesamtmacht im Flotten- und Küstenwachdienste	68,400
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(d.) Schiffe etc., Königliche Seemacht.—Angaben über die Zahl der auf der See sich befindenden oder im Bau begriffenen Dampfschiffe, so wie der am 1. Februar 1866 auf der See befindlichen ausgerüsteten Segelschiffe:—

Schiffsklassen	Dampfschiffe			Ausgerüstete Segelschiffe auf der See	Summa
	Auf der See	Im Bau	Summa		
<i>Panzer-Schiffe.</i>					
Schiffe 3. Ranges { Eisen Schraube	8	1	9	—	9
„ 4. Ranges { Holz „	7	—	7	—	7
„ 4. Ranges { Eisen „	2	—	2	—	2
„ 4. Ranges { Holz „	1	—	1	—	1
Thurmschiffe ('turret ships') { Eisen „	1	—	1	—	1
„ 4. Ranges { Holz „	1	—	1	—	1
„ 6. Ranges { Eisen „	2	—	2	—	2
Corvetten 6. Ranges { Eisen „	—	1	1	—	1
„ { Holz „	2	—	2	—	2
Schaluppen, Holz „	2	—	2	—	2
Kanonenhöte, Eisen „	2	—	2	—	2
„ „ „ „ „ „ „ „	—	1	1	—	1
Schwimmende Batterien { Eisen Schraube	3	—	3	—	3
„ { Holz „	1	—	1	—	1
<i>Nicht mit Eisen bekleidete Schiffe.</i>					
Linienschiffe „	55	3*	58	1	59
Fregatten „	38	—	38	10	48
„ „ „ „ „ „ „ „	5	—	5	—	5
†Blockschiffe ('blockships') Schraube	2	—	2	—	2
Corvetten „	25	—	25	—	25
Kriegs-Schaluppen „	32	6	38	1	39
„ „ „ „ „ „ „ „	14	—	14	—	14
Kleine Schiffe „	12	—	12	—	12
Depeschen-Schiffe „	4	—	4	—	4
Kanonenschiffe Schraube	33	3*	36	—	36
Kanonenhöte „	96	4*	100	—	100
Tender, Schleppdampfschiffe „	8	—	8	—	8
„ „ „ „ „ „ „ „	39	2	41	—	41
Mörserschiffe Schraube	2	—	2	—	2
Truppen- und Vorrathsschiffe „	15	5†	20	—	20
„ „ „ „ „ „ „ „	1	—	1	—	1
Yachten Schraube	1	—	1	—	1
„ „ „ „ „ „ „ „	5	—	5	—	5
Messungs-Schiffe ('surveying vessels') Schraube	—	2	2	—	2
Mörserschiffe und Flösse „	—	—	—	38	38
Summa—Schaufelrad	339	26	365		
„ Schraube	80	2	82		
Gesamt-Summa	419	28	447	50	497

* Der Bau von 3 Linienschiffen, 2 Kanonenschiffen und einem Kanonenboote wurde eingestellt.

† Entmastete, zu gewissen Zwecken in den Dockyards bestimmte Schiffe.

‡ Transportschiffe für Indische Unterstützungszwecke.

HANDELS-SEEMACHT ('*MERCANTILE MARINE*').—(a.) *Matrosen*.—Die Gesamtzahl der Schiffsmannschaft in registrierten Schiffen, zur Britischen Handels-Seemacht gehörend, war am 31. December 1865 255,654.

(b.) *Kauffahrtschiffe*.—Zahl und Tonnengehalt von registrierten Schiffen, welche am 31. December 1865 zur Handels-Seemacht ('*mercantile navy*') gehörten:—

	Zahl	Tonnengehalt
Segelschiffe	26,069	4,936,776
Dampfschiffe	2,718	823,533
Summa	28,787	5,760,309

FINANZEN.—**Gesamt-Einnahme und Ausgabe—Zweige der Einnahme—Aufgehobene Taxen etc.—Zweige der Ausgabe—Budget, 1867—Staatsschuld.**

Das Staatseinkommen wird theils durch directe, theils durch indirecte Steuern gedeckt. Zu den Hauptzweigen der Ersten gehören die permanenten ('*assessed taxes*'), die Einkommen- und Besitzthumsteuer, zu den Letztern die Mauth-, Accise- und Stempelgebühren.

Das Gesamt-Haupteinkommen und die Ausgaben während der letzten drei Jahre beliefen sich auf:—

Jahresschluss am	Einnahme	Ausgabe
31. März	£	£
1864	70,208,964	67,056,286
1865	70,313,437	66,462,207
1866	67,812,292	65,914,357

Dies bekundet für jedes Jahr einen bedeutenden Ueberschuss. Zu den oben erwähnten Ausgaben gehören nicht die für Befestigungszwecke, welche sich in den respectiven Jahren auf 800,000£., 620,000£. und 560,000£. beliefen, und die durch eine besondere Anleihe ('*terminable annuities*') gedeckt wurden.

(a.) *Zweige des Einkommens*.—Es wird genügen, um die Hauptbezugsquellen der Staatseinnahmen anzugeben, die Zahlen für das mit dem 31. März 1866 schliessende Jahr hier zu wiederholen, zu welcher Zeit die Beträge folgende waren:—

Zweige	Haupteinnahme, die Kosten für Eintreibung nicht abgezogen
	£
Von Mauthgebühren	21,276,000
„ Accise	19,788,000
„ Stempel	9,560,000
„ Permanente Steuer (' <i>assessed taxes</i> ')	3,350,000
„ Einkommen- und Besitzthumsteuer*	6,390,000
„ Postamt	4,250,000
„ Kronländer	320,000
„ Verschiedene	2,878,292
Summa	67,812,292

* Der Ertrag der Einkommensteuer war bedeutend geringer als in den früheren Jahren, weil diese Taxe auf 4d. per Pfund Sterling herabgesetzt worden war.

Es dürfte interessant sein, die verschiedenen Klassen taxirter zu den Mauth- und Accise-zweigen gehörenden Gegenstände anzuführen, welche zur Staatseinnahme in dem oben erwähnten Jahre beitrugen.

Die folgenden sieben Artikel tragen fast ausschliesslich zur Mauth-einnahme bei:—

	Im Jahre 1866
	£
Zucker und Syrup	5,228,460
Thee	2,599,817
Caffee	371,495
Korn und Mehl	743,145
Geistige Getränke	3,505,176
Wein	1,407,021
Taback und Schnupftaback . .	6,274,298

Die Einnahme von Thee war in Folge der herabgesetzten Einfuhrsteuer von 6d. per Pfund bedeutend geringer.

Die verschiedenen Zweige der Accise-Einnahme waren im Jahre 1865:—

	£
Von geistigen Getränken	10,176,731
„ Malz	6,394,553
„ Lizenzen (Erlaubniss zum Verkauf geistiger Getränke)	2,144,402

Abgeschaffte ('*repealed*') *Taxen etc.*—Nachstehende Tabelle giebt den Betrag der abgeschafften, verminderten oder auferlegten Taxen, während der 15 Jahre 1851–65, an:—

Zweige	Abgeschafft oder vermindert	Auferlegt	Wirkliche Verminderung (–) oder Hinzufügung (+)
	£	£	£
Mauth	14,089,384	3,293,396	–10,795,988
Accise	5,161,000	6,380,000	+ 1,219,000
Eigenthum- und Einkommen-Steuer	18,865,000	14,764,000	– 4,101,000
Andere Steuern	2,608,000	600,000	– 2,008,000
Stempel, einschliesslich der Successions-Gebühren	1,428,000	2,411,200	+ 983,200
Summa	42,151,384	27,448,596	–14,702,788

(b.) *Zweige der Ausgabe*.—Die Hauptzweige der Ausgaben des am 31. März 1866 endenden Jahres waren:—

	£
Interessen der Staatsschuld-Verwaltung:	
Consolidirte Staatsschuld	25,904,488
Nicht consolidirte Staatsschuld	328,800
Gesamtschuld	26,233,288
Civil-Liste und Civil-Chargen jeder Art	10,250,065
Heeresmacht: Die Armee, Ordnonanz einbegriffen	14,569,279
Seemacht	19,259,788
Gesamtmacht	24,829,067
Steuereintreibungs-Kosten	4,601,937
Veranschlagte Gesamtausgabe	65,914,357

(c.) *Budget, 1866-67.*—Die Einnahme für das am 31. März 1867 endende Jahr wird auf 67,013,000*l.* und die Ausgabe auf 66,662,000*l.* geschätzt.

(d.) *Staatsschuld.*—Der Gesamtbetrag der Staatsschuld am 31. März 1866 war:—

Consolidirte Schuld:	£
Capital der unbezahlten consolidirten Schuld	773,313,229
Veranschlagtes Capital der erlöschenden Leibrenten ('terminable annuities')	21,342,020
Nicht consolidirte Schuld	8,187,700

LOCALTAXEN.—Den Betrag der Localtaxen für England und Wales giebt man hier nur bis zum Jahre 1862 an; von den andern Provinzen des Königreichs hat man keine Statistiken. Die verschiedenen Branchen der Localtaxen in England und Wales, ohne die Begräbniss-Verwaltung ('burial boards'), waren:—

Angabe der Steuern etc.	Betrag empfangen £
Kirchensteuer	241,960
Abzugskanal-Steuer	44,009
Abzugskanal - Commission der 'City of London'	17,242
Drainirung und Eindämmung (der Themse)	147,145
Beleuchtung etc.	42,194
Verbesserungs-Commission	332,983
Metropole: Local-Verwaltung	850,504
Haupt-Drainirung	150,881
Märkte und Jahrmärkte	44,547
Brücken und Fähren	108,773
Häfen	1,107,751
Local-Committees, mit Einschluss des Berichts über Districtfonds, Privatverbesserungen und Wasserversorgungs-Taxe	352,016
Armentaxe (mit Einschluss der County- und Polizeitaxe)	9,448,319
Polizeisteuer für die Stadt London	354,627
Die City of London (einschliesslich der Kohlen- und Weinsteuer, Polizei-, Bezirks- ('ward') und Abzugskanal-Steuern	421,625
Vorstadt- ('borough') Taxe	311,953
Chaussee-Steuer	1,416,629
Schlagbaumzölle	1,066,156
'Trinity House' (Piloten- und Leuchthurn-Gebühren)	374,115
Summa	16,833,429

BANKEN.—Die Gesamtzahl der verschiedenen selbstständigen ('separated') Banken in allen Provinzen des Vereinigten Königreichs war im Jahre 1864 wie folgt:—

	In England und Wales	In Schottland	In Irland	Im Vereinigten Königreich
Englische und Irische Banken nebst Zweigen	12	—	30	42
Privat-Banken und Zweige	553	—	4	557
Joint-Stock (Societät-) Banken und Zweige .	857	614	181	1,652
Summa .	1,422	614	215	2,251

Die Durchschnittszahl der Wechsel ('promissory notes') im Jahre 1864 durch die Kassenanweisungsbanken ('banks of issue') ausgegeben, betrug 3,112,725*l.*, die der Joint-Stock-Banken 33,286,921*l.*

Bericht über den durchschnittlichen Betrag der Wechsel, zahlbar nach Sicht, die in England, Wales, Schottland und Irland in dem letzten Monate der Jahre 1863, 1864 und 1865 im Umlaufe waren:—

	1863	1864	1865
In England und Wales:	£	£	£
Bank von England	21,355,000	20,330,000	21,294,000
Privat-Banken	3,220,036	3,058,931	2,977,264
Joint-Stock-Banken	2,899,560	2,754,068	2,789,654
In Schottland: Privilegirte ('chartered') Privat-&Joint-Stock-Banken .	4,639,664	4,626,796	4,903,980
Irland: Bank von Irland	2,528,500	2,491,000	2,744,950
Privat-&Joint-Stock-Banken	3,411,753	3,381,706	3,946,290
Summa .	58,054,513	56,642,501	58,656,138

LIMITED LIABILITY (beschränkte Zahlungsverantwortlichkeit).—Wir müssen hier kurz erwähnen, was für Veränderungen in neuerer Zeit in den Gesellschafts-Banken, Credit- und andern commerciellen Unternehmungen mit Bezug auf beschränkte Verantwortlichkeit stattgefunden haben. Einem Berichte über diesen Gegenstand, vor kurzem durch Herrn W. Hawes der 'Society of Arts' mitgetheilt, entnehmen wir Folgendes:—

'Noch vor wenigen Jahren gab es in England nur zwei Arten von commerciellen Verbindungen; die eine, aus Associationen oder Gesellschaften bestehend, deren zahlreiche Mitglieder vereint nach einem Ziele strebten und unter dem Schutze eines königlichen Regierungserlasses ('charter'), oder, wie dies in neuerer Zeit vorgekommen, in Folge eines besondern Parlamentsbeschlusses, welcher die Verantwortlichkeit der Theilhaber auf das Gründungscapital beschränkte, ruhig ihren Geschäften nachgehen konnten; die zweite ein Verein von Leuten, die als Theilhaber eines Unternehmens in ihrem eigenen Namen, oder vereint nach gewissen Regeln und Vorschriften, welche

ihnen zur Richtschnur dienten, ihre Geschäfte betrieben, ohne jedoch, einzeln oder vereint, der Verantwortlichkeit, mit ihrem ganzen Vermögen für die von den Theilhabern gemachten Schulden einzustehen, entbunden zu sein.

‘Die zweite Art, nämlich die Verbindung von zwei oder mehreren Personen für gemeinsame Zwecke und mit unbeschränkter Verantwortlichkeit ward indessen stets als das von der grossen Masse der Handelswelt im Vereinigten Königreiche befolgte System angesehen.

‘Die Aufhebung der Wuchergesetze, die Vermehrung von gewährten Privilegien (‘charters’) Parlamentsbeschlüsse, mit besonderer Rücksicht auf ‘limited liability,’ und unsere zunehmenden Handelsverbindungen mit Ländern, wo man letzterm Principe in Handelsangelegenheiten huldigte, trugen wesentlich dazu bei, Beschränkungen, welche der Geldeinfuhr zu Handelszwecken im Wege standen, wegzuräumen und jedem die vollste Freiheit zu gewähren, seinem eigenen Vortheil gemäss zu handeln. So entstanden die Parlamentsbeschlüsse von 1856, 1857, 1862 und zuletzt der von 1865, welcher, obgleich unvollständig, Vereine von Männern, was auch ihre Zahl sein mochte, in den Stand setzte, Geld zu borgen und den daraus gezogenen Nutzen auf eine für sie vortheilhafte Weise zu verwenden.’

Die Einführung dieses Limited-Liability-Systems hat viele neue Companien in's Leben gerufen; angesehene Fabrikbesitzer haben seit den letzten zwei Jahren dasselbe angenommen, sind nun ‘Limited-Liability’-Companien und haben die Aussicht, durch diese Neuerung grössere Resultate zu erzielen als früher.

ERZIEHUNG. — Allgemeine — Elementarerziehung in Grossbritannien und Irland — Wochen- und Sonntagsschulen — Wissenschaft und Kunst — Mittelklassprüfungen.

Das Erziehungs-System (wenn man es so nennen darf) ist im Vereinigten Königreich noch sehr verwickelt. Die Erziehung ist frei und unbeschränkt; ein Jeder kann nach Belieben Schulen errichten, Kinder darin aufnehmen und sie seinen eigenen Ansichten gemäss heranbilden. Bis zum Jahr 1833 nahm die Regierung keinen Antheil an der Volkserziehung; seit jener Zeit fing sie jedoch an, den Elementarschulen unter gewissen Bedingungen behülflich zu sein, und dies hat sie auch seitdem gethan. Die Abtheilung für Kunst und Wissenschaft (‘Department of Science and Art’), im Jahre 1853 gegründet, wird gleichfalls von der Regierung unterhalten; auch gewährt Letztere anderen Anstalten Geldbewilligungen zur Förderung wissenschaftlicher Zwecke.

Eine Uebersicht von den verschiedenen Schulklassen, Collegien und andern mit der Volkserziehung in Verbindung stehenden Anstalten wird vielleicht das beste Mittel sein, um hier das Erziehungswesen in Königreich näher zu beleuchten:—

1. Oeffentliche Elementarschulen, Wochen- und Sonntagsschulen.
2. Oeffentliche Normalschulen, um Lehrer für Elementarschulen heranzubilden.
3. Privatschulen.
4. Oeffentliche Lateinische (‘grammar’) und Stiftsschulen (‘foundation schools’).
5. Oeffentliche Schulen, wie Militair-, Marine-, Forst-, Corporations-, Arbeitshaus- und Gefängniss-Schulen etc. Lumpenschulen, Schulen für Waisenkinder, Blinde, Taubstumme, Blödsinnige und für Kinder, die in den Fabriken, Kohlengruben und chemischen Anstalten beschäftigt sind.
6. Universitäten und Collegien.
7. Haus-Unterricht, Privatklassen.
8. Mittelklass- oder Local-Prüfungen, gegründet im Jahre 1854 durch das ‘College of Preceptors,’ im Jahre 1856 durch die ‘Society of Arts’ und im Jahre 1858 durch die Universitäten von Oxford und Cambridge.
9. ‘Mechanics’ Institutes,’ Handwerker-Collegien, und Abendklassen.

Obige Anstalten gehören der allgemeinen Erziehung an. Die folgenden gewähren noch wichtigere Vortheile zum speciellen Unterrichte in den Künsten und Wissenschaften:—

Die Abtheilung für Kunst und Wissenschaft (‘Department of Science and Art’), mit Zweigschulen im ganzen Lande.

Die königliche Schule für Seebau- und Marine-Ingenieurkunst (‘Royal Schools of Naval Architecture and Marine Engineering’).

Die königliche Bergbau-Schule (‘School of Mines’).

Das Edinburger Museum für Kunst und Wissenschaft.

Museum für Irländische Industrie.

Die königliche Dubliner Gesellschaft, und viele andere.

Die königlichen Academien für Malerei und Tonkunst, die so wesentlich zur Veredlung des Nationalgeschmacks beitragen, verdienen hier besonders erwähnt zu werden.

Anwälte, Chirurgen, Apotheker etc. haben auch vorgeschriebene Prüfungen zu bestehen, ehe sie practiciren dürfen. Candidaten für die Armee, den See- und Civildienst haben gleichfalls in ihren respectiven Branchen ein Examen zu machen.

Es würde unmöglich sein, von den obenerwähnten Schulklassen hier in wenigen Zeilen einen Umriss zu geben. Sie lassen sich jedoch im allgemeinen in 2 Klassen eintheilen: 1. *Private* und 2. *Oeffentliche*. Die Erstern bestehen ausschliesslich durch das von den Schülern bezahlte Schulgeld und nehmen grösstentheils die Kinder auf, welche den mittlern und höhern Ständen angehören. Die zweite Klasse schliesst alle Schulen ein, die ihr Einkommen aus andern Quellen als aus den eben

erwähnten beziehen. Zu dieser Klasse gehört der wichtigste Zweig, nämlich die Erziehung der arbeitenden Bevölkerung, und es dürfte in interessant sein, hier die bei ihrer Erziehung angewandten Mittel anzuführen.

Elementar-Unterricht. 1. Grossbritannien.—

Es ist bereits erwähnt worden, dass die Regierung im Jahre 1833 anfang, die Elementarschulen im Königreiche zu unterstützen. Bis zu jener Zeit verdankte die Volkserziehung ihr Bestehen der Freigebigkeit des Publicums und dem Religionseifer, die sich durch die beiden grossen Gesellschaften, 'British' und 'National Societies,' aussprachen.

Vom Jahre 1839 an bis 1866 gab die Regierung die Summe von 1,724,000l. Sterling für die Volkserziehung in Grossbritannien aus. Die für Erziehungszwecke alljährlich vom Parlamente bewilligten Summen verwaltet das 'Department of Education.' Der Zweck dieser Geldbewilligungen ist, die Kindererziehung derjenigen Klassen zu fördern, welche sich durch Handarbeit ernähren. Die auf diese Geldbewilligungen sich beziehenden Bedingungen sind zu ausgedehnt, um hier erwähnt werden zu können; jedoch findet man sie in dem Berichte der Committee des Erziehungsraths ('Council of Education').

Dem letzten Berichte für das Jahr 1865 zu Folge besuchten die Erziehungs-Inspectoren 12,950 Schulen oder Abtheilungen solcher Schulen, unter besondern Lehrern stehend. Die Zahl der bei diesen Inspectionen anwesenden Kinder betrug 1,246,055, die der befugten ('certificated') Lehrer 11,266, der Hülflehrer 933 und der Lehrlinge 11,383. Unter der Gesamtzahl von Schulen bestanden 2,282 nur für Knaben, 1,888 nur für Mädchen; in 5,585 wurden Knaben und Mädchen zusammen unterrichtet; 1,707 waren für kleine Kinder (unter sieben Jahren) bestimmt und 1,215 für Abendschulen. Von der Gesamtzahl der in den Schulen anwesenden Kinder waren 698,221 Knaben und 547,834 Mädchen.

Man muss jedoch bedenken, dass es im Lande viele Elementarschulen giebt, welche nicht unter der Aufsicht der Erziehungs-Verwaltung stehen.

Die folgende Tabelle giebt die verschiedenen Zweige der Einnahmen und Ausgaben von 7,770 im Jahre 1865 inspectirten Schulen an:—

Zweige der Einnahme	Betrag	Zweige der Ausgabe	Betrag
	£		£
Stiftungen .	56,424	Lehrersalar .	980,056
Freiwillige Beiträge }	356,810	Bücher und Apparate }	53,389
Schulpence .	424,547	Verschiedene	256,956
Regierungszuschuss }	322,846		
Andere Einnahmen }	98,299		
Summa	1,258,926	Summa	1,290,401

Die Gesamt-Ein- und Ausgaben für jedes die Schule besuchende Kind waren:—

	In England und Wales	In Schottland
Einschliesslich des Regierungszuschusses:	£ s. d.	£ s. d.
Einnahme	1 5 8½	—*
Ausgabe	1 6 5½	—
Den Regierungszuschuss nicht einbegriffen:		
Einnahme	0 18 2½	0 18 1½
Ausgabe	0 18 11½	0 18 0½

* Die Regierungs-Geldzuschüsse werden in den Schottischen Schulen direct an die Lehrer und Lehrschüler ('pupil-teachers') bezahlt und bilden keinen Theil derjenigen Fonds, welche den Vorstehern zur Verfügung stehen.

Alter der Schüler.—Im Jahre 1865 waren 71 Procent der Gesamtzahl unter 10 Jahre alt, 27 Procent zwischen 10 und 14 und 2 Procent über 14.

Salar der Lehrer.—Das jährliche Durchschnittssalar der Lehrer in solchen Schulen, welche von der Regierung in Grossbritannien Geldzuschüsse erhalten, betrug im Jahre 1865:—

	Befugte ('certificated')	Unbefugte ('uncertificated')
	£ s. d.	£ s. d.
Lehrer	86 10 9	58 16 4
Lehrerinnen	55 2 1	38 8 5
Kleinkinder-Lehrerinnen .	52 3 3	3 1 1

2. National-Schulen, Irland.—Der Elementar-Unterricht in Irland steht unter der Leitung der Volkserziehungsbehörden ('Board of National Education'). In den Irischen Schulen wird der Religionsunterricht vom allgemeinen Unterrichte getrennt ertheilt. Die Zahl der Irischen Nationalschulen betrug am Ende des Jahres 1864 6,263, welche durchschnittlich 315,108 Kinder besuchten. Die Gesamt-Einnahmen betrugen 340,748l., von welcher Summe die Regierung 251,016l. bewilligte. Es gab auch 36 Muster- und 55 gewöhnliche Ackerbau- und zugleich Zeit 3 Gartenschulen. Die Saläre der Lehrer schwankten für Lehrer ersten Ranges zwischen 38l. und 52l. jährlich, für Lehrerinnen zwischen 30l. und 42l.; andere weniger befähigte Lehrer erhielten verschiedene geringere Saläre.

Allgemeine Statistiken.—Hier folgt der letzte Bericht von der Gesamtzahl der in den Klassschulen von England und Wales unterrichteten Personen:—

	Schulen	Schüler		
		Knaben	Mädchen	Summa
Wochentagschulen:				
Oeffentliche .	24,563	911,152	764,006	1,675,158
Privat- .	34,412	389,607	470,697	860,304
Summa .	58,975	1,300,759	1,234,703	2,535,462
Sonntagsschulen .	33,872	1,189,725	1,221,829	2,411,554

Obiger Bericht vom Jahre 1858 bezieht sich auf die Schulen aller Confessionen.

Nach dem Census vom Jahre 1861 war die Gesamtzahl von Schülern (so angegeben) jeden Geschlechts in jeder Provinz des Königreichs folgende:—

Provinzen	Schüler		
	Knaben	Mädchen	Summa
England und Wales	1,552,738	1,597,310	3,150,048
Schottland . .	241,803	225,253	467,056
Irland . . .	342,997	305,380	648,377
Im ganzen Vereinigten Königreiche . .	2,137,538	2,127,943	4,265,481

Erziehung in Wissenschaft und Kunst.—

Dem letzten Berichte des 'Department of Science and Art' zu Folge bestanden im Jahre 1865, 158 Wissenschafts-Schulen und Anstalten (ohne sechs Navigations-Schulen einzurechnen), in welchen wissenschaftlicher Unterricht von geprüften und befugten Lehrern erteilt wurde. Von diesen 158 Schulen waren 121 in England, 8 in Schottland und 29 in Irland. Die Klassenzahl betrug 484 und die der Schüler 6,835.

An Kunstschulen, welche 16,621 Schüler besuchten und den Unterricht in den Elementarschulen auf 89,267 Kinder erstreckten, gab es 92.

Ausser dem Beistande, welchen das Departement für Wissenschaft und Kunst den arbeitenden Klassen gewährt, um sie in denjenigen verschiedenen Zweigen der Kunst und Wissenschaft zu unterrichten, welche sich auf ihre respectiven Gewerbe beziehen, befasste sich jenes Departement noch mit der Verwaltung des South-Kensington-Museum, eine Central-Niederlage für wissenschaftliche und Kunstgegenstände, die, so weit dies möglich ist, im ganzen Königreiche practisch benutzt werden.

Mittelklass-Prüfungen.—Einen bedeutenden Aufschwung zur Förderung einer gediegenen Erziehung unter den mittleren Klassen gab die im Jahre 1854 gegründete Institution des Lehrercollegiums ('College of Preceptors') zur Prüfung von Schülern und Lehrern. Im Jahre 1856 wandte die Gesellschaft für Künste ('Society of Arts') ihr Prüfungssystem bei den die 'Mechanics' Institution' besuchenden Personen an. Die Universitäten von Oxford und Cambridge gründeten im Jahre 1858 die sogenannten Universitäts-Local-Prüfungen ('University Local Examinations'). Die Anzahl der von Letztern in den verschiedenen Landes-theilen geprüften Candidaten stieg von 587 im Jahre 1854 auf 5,438 am Schlusse des Jahres 1866. Die Prüfungen der Universität Cambridge, des Lehrercollegiums und der Gesellschaft für Künste stehen beiden Geschlechtern offen, die der Universität Oxford sind bis jetzt nur auf das männliche Geschlecht beschränkt.

Die Anzahl der im Jahre 1866 zu den Prü-

fungen sich meldenden Candidaten war folgende:—

Zu den Prüfungen der Universität Oxford	1,228
Zu den Prüfungen der Universität Cambridge	1,538
Zu den Prüfungen des Lehrercollegiums	1,575
Zu den Prüfungen der Gesellschaft für Künste	1,097

Es ist fast unmöglich, die Wichtigkeit jener Prüfungen, welche schon eine so grosse Verbesserung in der Erziehung der mittlern Klassen und namentlich der Privatschulen erzielt haben, zu unterschätzen.

VERSICHERUNGS-ANSTALTEN. — Leben — Marine — Feuer.

(a.) **Lebens- und Marine-Versicherung.**—Statistiken über die Zahl von Lebens- und Marine-Versicherungen sind nicht vorhanden, weil jene Anstalten von ihren Angelegenheiten keine Berichte abzugeben haben. Die Lebensversicherungen haben indessen in den letzten 15 Jahren sehr zugenommen.

(b.) **Feuerversicherung.**—Was die Versicherung von Eigenthum und Pachtbesitz anbetrifft, worauf den respectiven Angaben gemäss alljährlich die Taxen bezahlt werden, so geben die Statistiken über Stempelgebühren den Werth der versicherten Gegenstände an. Im Jahre 1864 war der Betrag des versicherten Eigenthums in jeder Provinz des Königreichs folgender:—

Provinzen	Veranschlagter Werth des versicherten Eigenthums	Veranschlagter Werth des versicherten Pachtbesitzthums
England und Wales	£ 1,101,444,000	£ 69,455,000
Schottland . . .	92,234,000	6,564,000
Irland	58,202,000	1,151,000
Summa	1,251,880,000	77,170,000

Für Vieh auf Pachthöfen wird keine Stempelsteuer bezahlt. Die Feuer-Versicherungstaxe beträgt 1s. 6d. für jedes 100l.

ANSTALTEN ZUM BESTEN DER ACKERBAUER UND HANDWERKER.—**Sparkassen** — **Postamtsparkassen** — **Leibrenten- und Lebensversicherungen** — **Freundschafts-, Vereins-, Leih-, Bau- und Landgesellschaften** — **Arbeiterclubs.**

(a.) **Sparkassen.**—Es giebt gegenwärtig zweierlei Sparkassen: 1. Diejenigen, welche seit dem Jahre 1817 existirten, und 2. Die Postamtssparkassen, im Jahre 1861 gegründet.

Unter der Leitung des 'Board of Trade' (Handelsministerium) hat man kürzlich auch zum Versuche eine Depositenbank für Matrosen ('Experimental Deposit Bank') in Liverpool errichtet. Man zahlt keine Interessen auf das Niedergelegte, aber ein Matrose kann dort zu jeder Zeit Geldsummen deponiren und wieder

ohne Kündigung zurückziehen. Matrosen, im Begriffe abzusegeln, können ihr Geld von dort in die Sparkassen schicken und erhalten dann 3 Procent per annum.

Die folgende Tabelle giebt, in Klassen eingetheilt, die Zahl der einzelnen Deponenten, Wohlthätigkeits-Anstalten und Unterstützungs-Vereine ('Friendly Societies') an, welche ihr Geld in die alten Sparkassen deponirten, auch den Betrag der niedergelegten Summen, einem Berichte nach, welchen die Banken am 20. November 1865 den Commissären der National-schuld erstatteten.

	Zahl der Deponenten	Betrag der deponirten Summe, mit Einschuss der Zinsen	Durchschnittsbetrag jeder einzelnen Rechnung
Am 20. November 1865			
		£	£ s. d.
Nicht über £1 . . .	251,820	69,058	0 5 5
" " 5 . . .	275,785	702,116	2 10 11
" " 10 . . .	177,384	1,250,381	7 0 1
" " 15 . . .	125,516	1,510,850	12 0 8
" " 20 . . .	79,577	1,369,962	17 4 4
" " 30 . . .	134,817	3,247,909	24 1 10
" " 40 . . .	103,926	3,491,997	33 12 0
" " 50 . . .	56,991	2,529,887	44 7 10
" " 75 . . .	94,197	5,732,215	60 17 0
" " 100 . . .	46,454	4,022,759	86 12 0
" " 125 . . .	32,413	3,589,615	110 14 10
" " 150 . . .	18,692	2,545,825	136 4 0
" " 200 . . .	30,887	5,298,967	171 10 11
Ueber 200 . . .	2,152	450,302	209 4 3
Einzelne Deponenten . . .	1,430,611	35,811,843	25 0 10
Pfennigbanken . . .	891	65,426	73 7 3
Wohlthätigkeits-Anstalten . . .	14,446	696,768	48 4 0
Freundschafts-Vereine* . . .	11,619	1,869,970	161 0 0
Summa . . .	1,457,567	38,444,007	26 7 8

* Die hier angegebene Zahl und respective Beträge der Freundschafts-Vereine ('friendly societies') beziehen sich nur auf solche Gesellschaften, deren Geld in den Sparkassen angelegt ist, und schliessen nicht jene ein, die es direct den Regierungsbevollmächtigten ('Commissioners') anvertrauten.

Die Zahl der am 20. November 1865 mit den Regierungsbevollmächtigten in directer Rechnung stehenden Freundschafts-Vereine betrug 545, die niedergelegte Summe 1,915,703£., der Durchschnittsbetrag jeder einzelnen Rechnung 3,496£.

(b.) *Postamts-Sparkassen.*—Der Zustand der Postamts-Sparkassen am 31. December 1865 war folgender:—

Anzahl der Postamts-Sparkassen . . .	3,321
Zahl der bis zum 16. September 1861 eingetragenen Deponenten . . .	3,895,135
Gesammtbetrag der angelegten Summen . . .	11,834,979£.
Durchschnittsbetrag jeder einzelnen Summe . . .	3£. 0s. 9d.
Gesammtbetrag der Rückzahlungen seit dem 16. September 1861 . . .	5,619,250£.
Durchschnittsbetrag jeder zurückbezahlten Summe . . .	5£. 11s. 1d.
Verwaltungskosten . . .	141,375£.

Durchschnittskosten für jede deponirte oder zurückgeforderte Summe . . .	6 $\frac{2}{10}$ £.
Gesammtbetrag, Zinsen einbezogen, der den sämtlichen in Rechnung stehenden Deponenten schuldigen Summe am 31. December 1865 . . .	6,526,400£.
Durchschnittsbetrag der jedem einzelnen Deponenten am 31. December 1865 schuldigen Summe . . .	10£. 13s. 4d.

Es giebt Postamtssparkassen in allen Geldversendungs-Aemtern ('money order offices,') des Vereinigten Königreichs, die täglich sowohl für Ein- als Auszahlungen zu den für Geldversendungen bestimmten Geschäftsstunden dem Publicum geöffnet sind.

An diesen Kassen werden Geldniederlagen von einem oder mehren Schillingen angenommen; Niemand aber kann, die Zinsen ungeachtet, in einem Jahre mehr als 30£., oder im Ganzen über 150£., anlegen.

Man gestattet 2 $\frac{1}{2}$ Procent jährliche Zinsen, bis die deponirte Summe auf 200£. angewachsen ist; dann hören die Zinsen auf. Dieser Berechnung nach zahlt man jährlich auf jedes volle Pfund Sterling 6d. und monatlich $\frac{1}{2}$ Penny, und rechnet allemal vom ersten Tage desjenigen Monats an, der dem Tage, an welchem das Geld deponirt wurde, folgt, bis zum letzten Tage des Monats, welcher dem Tage, an dem das Geld zurückgezogen wird, vorangeht. Die Zinsen werden jedes Jahr am 31. December dem angelegten Capitale hinzugefügt.

(c.) *Leibrenten und Versicherungen* ('annuities and insurances').—Ein anderer Hauptzug in Verbindung mit Sparkassen sind die Leibrenten-Bewilligungen. Die alten Sparkassen gewähren den arbeitenden Klassen Leibrenten, welche die Summe von 30£. nicht übersteigen dürfen, jedoch, in Folge einer in neuerer Zeit mit den Postamts-Sparkassen getroffenen Uebereinkunft, bewilligt man jetzt auch Leibrenten und Lebensversicherungen. Hier folgen die vom 'Insurance and Annuity Office' durch die Regierung erlassenen Vorschriften.

Der Oberpostdirector ist dem Parlamentsbeschlusse, Königliche Gesetzsammlung, cap. 43, p. 27 & 28, gemäss ermächtigt, das Leben von Personen beiden Geschlechts vom 16. bis zum 60. Jahre, für eine Summe, die nicht weniger als 20£. und nicht mehr als 100£. betragen darf, zu versichern. Derselbe Beschluss ermächtigt ihn gleichfalls, Personen beiden Geschlechts, vom 10. Jahre an und darüber *sogleich* oder *später* stattfindende Leibrenten ('immediate or deferred annuities') im Betrage von nicht mehr als 20£. zu bewilligen. Personen, deren Leben auf diese Weise versichert ward, oder denen Leibrenten bewilligt wurden, geniessen, was pünktliche Bezahlung anbetrifft, der besondern Regierungsgarantie.

Bestimmte Postämter, deren Namen man auf jedem Postbureau erfragen kann, stehen für

solche Lebens-Versicherungszwecke dem Publicum offen, und gedruckte Formula, mit den nöthigen Erläuterungen, zum Ausfüllen und Einsenden, kann man sich auf den Postämtern verschaffen.

Gedruckte Tabellen mit Preisangaben für Lebensversicherungen, für Leibrenten, die unmittelbar oder später stattfinden, für monatliche Geldbewilligungen *ohne* Zurückerstattung der Einkaufssumme, auch Preisangaben für später eintretende Leibrenten oder monatliche Geldbewilligungen *mit* Zurückerstattung der Einkaufssumme, kann man sich auf den für solche Zwecke offen stehenden Postämtern verschaffen. Der Preis der für Lebensversicherungen und Leibrenten *ohne* Zurückerstattung der Einkaufssumme bestimmten Tabellen beträgt 3*sd.*, der für Leibrenten *mit* Zurückzahlung der Einkaufssumme 2*d.* Wenn sie mit der Post geschickt werden, so betragen die Kosten im einen Falle 5*d.*, im andern 3*d.*

Die für Lebensversicherungen geforderten Prämien schwanken mit dem Alter der Personen, deren Leben versichert wird, und mit der Art und Weise, in welcher sie gezahlt werden.

Die auf irgend ein Leben gewährte Leibrente oder monatliche Bewilligung darf nicht über 50*l.* jährlich oder 4*l.* 3*s.* 4*d.* monatlich hinausgehen; aber die Käufer brauchen den ganzen Betrag einer solchen Leibrente oder Bewilligung nicht zu derselben Zeit zu kaufen. Sie können damit anfangen einen Theil davon zu kaufen, der ihren Mitteln entspricht, und ihren Ankauf von Zeit zu Zeit vermehren, jenachdem ihre Umstände ihnen dies erlauben.

Mann und Frau können sich beide zu der vollen Summe von 100*l.* versichern und können beide eine Leibrente von 50*l.* oder eine monatliche Bewilligung von 4*l.* 3*s.* 4*d.* kaufen. Irgend welche zwei Personen können eine Leibrente auf ihr gemeinsames Leben kaufen, mit oder ohne Fortgang der Leibrente für den Ueberlebenden.

Personen, welche für ihre Lebensversicherung oder für den Ankauf von Leibrenten oder monatlichen Bewilligungen contrahiren, können ihre periodischen Prämien oder Abschlagszahlungen des Kaufgeldes an irgend ein Postbureau, welches für diesen Zweck entweder schon geöffnet ist oder noch geöffnet werden mag, entrichten, wie es ihnen am besten passt.

Personen, welche beabsichtigen, ihr Leben zu versichern oder aufgeschobene (*deferred*) monatliche Bewilligungen zu kaufen, müssen auf ihre eignen Kosten Geburts- oder Taufscheine oder diejenigen anderen Beweise für ihr Alter herbeischaffen, welche man von ihnen fordert; aber es wird nicht von ihnen verlangt, dass sie für die ärztliche Untersuchung oder für irgend eine Nachfrage bezahlen, welcher Generalpostmeister für nöthig hält, über ihre Gesundheit, ihre Gewohnheiten, ihr Alter, und ihre Beschäftigung anzustellen, oder für die Ausfertigung irgend welcher Contracte, welche in Folge ihrer Vorschläge gemacht werden, oder für die Uebersendung irgend welcher Correspondenz, welche aus ihren Anträgen

zwischen ihnen und dem Generalpostmeister entsteht, da alle diese Kosten in den Prämien eingeschlossen sind, welche sie, im Einklang mit den zu diesem Zwecke entworfenen Tabellen für die Versicherung ihres Lebens oder den Ankauf aufgeschobener monatlicher Bewilligungen zu zahlen haben.

Personen, welche sofortige oder aufgeschobene halbjährlich zahlbare Leibrenten zu kaufen wünschen, müssen auf ihre eigenen Kosten Geburts- oder Taufscheine, oder andere Beweise für ihr Alter, herbeischaffen, welche man von ihnen fordert; und da die Prämien, welche für die Bewilligung solcher Leibrenten in den zu diesem Zweck entworfenen Tabellen festgesetzt sind, keine Kosten und Auslagen einschliessen, müssen sie zur Zeit des Auslaes eine Gebühr von 1*s.* für jedes Pfund der gekauften Leibrente entrichten.

Die Zahl der am Ende des Jahres 1865 in Kraft stehenden Lebensversicherungen betrug 560 und die versicherte Gesamtsumme 41,734*l.*; 94 sofortige and 54 aufgeschobene Leibrenten wurden während desselben Zeitraums entweder gekauft, oder es wurde wegen des Ankaufs derselben verhandelt. Das Bestehen der Leibrenten- und Lebensversicherungs-Bureau's des Postamts ist den arbeitenden Klassen Englands noch nicht allgemein bekannt; aber es kann kaum ein Zweifel darüber bestehen, dass im Laufe einiger Jahre die industriellen Klassen sich in grossem Umfang der Vortheile bedienen werden, welche die beiden Branchen der Lebensversicherung und der Leibrenten darbieten.

(*d.*) *Gemeinnützige Gesellschaften* (*'friendly societies'*).—Der Registrator der gemeinnützigen Gesellschaften erklärt in seinem letzten Berichte, dass die Zwecke, für welche dieselben, unter den auf solche Gesellschaften Anwendung erleidenden Statuten, gegründet wurden, anfänglich auf die Versicherung einer Geldsumme beschränkt waren, welche bei der Geburt des Kindes eines Mitglieds, oder bei dem Tode eines Mitglieds, oder für die Begräbnisskosten der Frau oder des Kindes eines Mitglieds, ausbezahlt werden sollte; sowie für die Unterstützung oder Erhaltung der Mitglieder, ihrer Männer, Frauen, Kinder, Brüder, Schwestern, Neffen und Nichten, im Alter, in Krankheit oder Wittwenhum; oder für die Ausstattung von Mitgliedern, oder der von Mitgliedern Ernannten, in irgend einem Lebensalter und für irgend einen Zweck, welcher durch einen der Haupt-Staatssecreteire Ihrer Majestät, als den Vollmachten und den Privilegien der Acte entsprechend, autorisirt werden möchte. Unter diesen Bestimmungen sind die Zwecke, auf welche die Statuten ursprünglich anwendbar waren, bedeutend erweitert worden. Der Staatssecretair hat ihre Anwendung auf Hilfeleistungen an Mitglieder autorisirt, welche genöthigt sind, zu reisen, um Beschäftigung zu finden; auf die Bewilligung zeitweiser Unterstützung an Mitglieder in bedrängten Umständen; auf die

Gewährung von Unterstützung und Unterhalt an Mitglieder, in Fällen von Lahmheit, Blindheit, oder zufälliger körperlicher Verletzung; auf den Ankauf von Kohlen und andern den Mitgliedern zu verabreichenden Lebensbedürfnissen; auf die Anhäufung der Zinsen der überschüssigen Summe, welche nach Zahlung der Lebensversicherung restirt, zum Besten irgend eines Mitgliedes; auf die Beschaffung von Beistand im Falle eines Schiffbruchs, oder Verlust und Schaden an Böten oder Netzen, und auf die Versicherung von Mitgliedern gegen Verlust durch Krankheit oder Tod des beim Handel oder Landbau benutzten Viehes und auf die Einrichtung von Arbeiterclubs. Alle diese Zwecke sind adoptirt worden, und Gesellschaften zur Durchführung eines oder mehrerer derselben bestehen in allen Theilen des Landes. Im December des Jahres 1865 versandte der Registrator dieser Gesellschaften 22,834 Exemplare des Jahresberichts über den allgemeinen Stand der Finanzen und die Erfolge gemeinnütziger Gesellschaften und eine gleiche Zahl von Exemplaren des Berichts über Krankheit und Sterblichkeit, zu deren Ablegung die gemeinnützigen Gesellschaften, in Gemässheit mit c. 63 s. 45 des 18. und 19. Vict. verpflichtet sind. Von den Jahresberichten hatte man bis zum 1. Juli, 1866 nur 10,345 und von den fünfjährigen Berichten nur 7,706 zurückerhalten, und in 170 derselben fehlte die Angabe des Namens der Gesellschaft und des Ortes, an welchem sie bestand. Wenn der Bericht über den allgemeinen Sachbestand unterbleibt, setzen die Beamten sich einer Geldbusse von nicht mehr als 20s. aus; aber auf dem Versäumniss der Einsendung des fünfjährigen Berichts über Krankheit und Sterblichkeit steht keine Strafe oder Geldbusse. Aus den 10,345 Berichten erhellt, dass die Zahl der Mitglieder sich auf 1,374,425 und der Gesamt-Kassenbestand auf 5,362,028l. beläuft.

(e) *Co-operative Gesellschaften.*—Aus den Berichten, welche in Gemässheit mit cap. 87. des 25. und 26. Vict. von 417 dieser Gesellschaften für das mit dem 31. December 1865 endende Jahr an den Registrator eingesandt wurden, ergibt sich, dass:—

Die Zahl der Mitglieder sich belief auf	148,586
Die Zahl der im Laufe des Jahres aufgenommenen Mitglieder	29,182
Die Zahl der Ausgetretenen	11,815
Gesammtbetrag der auf Actien erhaltenen oder creditirten Summen seit der Gründung der Gesellschaft	£ 1,017,106
Betrag, empfangen auf Actien während des Jahres	307,356
Betrag der Summe, von Mitgliedern im Laufe des Jahres zurückgefordert	180,812
Betrag des Actien Capitals am 31. December 1865	761,313
Betrag des Anleihe Capitals am 31. December 1865	112,733

Betrag, erhalten auf Anleihen während des Jahres	£ 34,631
Anleihen, zurückbezahlt während des Jahres	19,101
Zinsbetrag für das laufende Jahr	33,686
Baarbetrag der während des Jahres eingekauften Waaren	3,063,088
Baarbetrag der im Jahr verkauften Waaren	3,337,837
Jahresgewinn	279,266
Gesammtbetrag der Jahresausgaben, einschliesslich der Löhne, Mithen, Taxen, Gebühren und sonstiger Arbeits- oder Herstellungskosten	190,538
Baarbetrag am 31. December, in den Händen der Banquiers, Kassenführer und Angestellten	136,923
Gesammtbetrag oder Werth des sämtlichen Besitzthums der Gesellschaften am 31. Dec. 1865	1,105,685
Gesammtbetrag der seitens der Gesellschaften am 31. Dec. 1865 schuldenden Summe	273,480

Aber nur eine sehr kleine Anzahl der obigen Gesellschaften fällt unter die Bezeichnung von co-operativen, sofern dieselbe auf Handwerke angewandt wird; die Mehrzahl besteht aus co-operativen Vorrathshäusern, zum Verkauf von Krämerwaaren etc. zu En-gros-Preisen. Dennoch gewähren sie den arbeitenden Klassen beträchtliche Vortheile, da sie dieselben in den Stand setzen, ihren Lebensbedarf in den Vorrathshäusern viel billiger einzukaufen, als dies in den Läden der Kleinhändler möglich ist, während die, in den Vorrathshäusern der Regel nach ausbedungene Zahlung in baarem Gelde bei den Käufern eine sparsame Lebensweise befördert.

(f.) *Leih-Gesellschaften.*—Aus den Berichten, welche, in Gemässheit mit c. 110 des 3. und 4. Vict., von 865 dieser Gesellschaften für das mit dem 31. December 1865 endende Jahr an den Registrator eingesandt wurden, ergibt sich, dass:—

Die von Depositoren und Actionären wirklich vorgeschossene und bezahlte Summe betrug	£ 253,523
Die am 31. December 1865 in den Händen von Borgern befindlichen Summen	518,866
Der im Laufe des Jahres circulirte Gesamtbetrag	857,844
Die Zahl von Gesuchen um Anleihen während des Jahres	184,171
Die Zahl von Borgern, denen während des Jahres Anleihen bewilligt wurden	170,318
Die für Gesuch- und Nachfrage-Formulare während des Jahres gezahlte Summe	10,435
Die von Borgern oder Bürgschaften während des Jahres bezahlten Zinsen	42,140

	£
Der Brutto-Ertrag für die von Borgern gezahlten und für Gesuch- und Nachfrage - Formulare erhaltenen Summen	58,509
Verwaltungsausgaben des Jahres	21,345
An Depositen oder Actionäre gezahlte Zinsen	32,859
Reinertrag, nach Abzug der an Depositen und Actionäre gezahlten Zinsen und der Verwaltungsausgaben	6,391
Zahl der gerichtlichen Citationen	13,208
Zahl der gerichtlichen Beschlagnahmen	2,101
Summe, zu deren Wiedererlangung die Citationen erlassen wurden	31,586
Wiedererlangte Summe	23,991
Betrag der von den Gesellschaften zu zahlenden Kosten	2,940
Betrag der von Borgern oder Bürgerschaften gezahlten Kosten	2,390

(g.) *Gemeinnützige Bau-Gesellschaften.* — Diese Gesellschaften bestehen in vielen Theilen des Königreichs; aber es fehlt an Berichten über die wirkliche Zahl ihrer Mitglieder, sowie über ihre Verwaltung. Man weiss jedoch, dass diese Gesellschaften viele Tausend Mitglieder zählen, und dass ihre Thätigkeit einen weiten Kreis umfasst.

(h.) *Land-Gesellschaften.* — Land-Gesellschaften wurden ursprünglich für einen politischen Zweck gebildet, den nämlich, Mitglieder aller Klassen, und besonders der niederen Klassen, in den Stand zu setzen, das Freigut-Wahlrecht ('freehold franchise') in den Grafschaften billig zu erwerben. Gegenwärtig ist der Hauptzweck dieser Gesellschaften, denselben Klassen die Mittel zu bieten, Besitzer von Freigütern zu werden und Häuser darauf zu bauen. Die Gesellschaften kaufen zuerst grosse Landstücke und verkaufen dieselben sodann an Mitglieder, denen sie ebenfalls Geldvorschüsse zu Bauten bewilligen. Sowohl das Kaufgeld für das Land als die Geldvorschüsse können den Gesellschaften von den Mitgliedern in Raten zurückgezahlt werden, welche sich gewöhnlich auf einen Zeitraum von etwa zehn Jahren vertheilen.

In einigen Gesellschaften müssen die Mitglieder Actionäre werden, und nehmen dann, ausser an den übrigen dargebotenen Vortheilen, an den gewöhnlichen Gewinnsten der Compagnie

Theil. Vollständige Berichte über die Geschäfte der Landgesellschaften sind nicht vorhanden; aber von ihrer Bedeutung mögen die folgenden, dem letzten Bericht einer der grössten Gesellschaften, der 'Conservative Land Society,' entlehnten Zahlen eine Vorstellung geben:—

Gesamtzahl der vom September 1852 bis Michaeli 1866 ausgegebenen Actien	Zahl 25,674
Werth des seit der Gründung der Gesellschaft, bis Michaeli 1866 verkauften Landes	£ 493,091

Die Wirksamkeit der 'National Freehold Land Society' und der 'British Land Company' ist sogar von noch grösserem Umfang als die der 'Conservative Society.'

Der Hauptpunkt jedoch, welcher Beachtung verdient, ist der, dass durch den Beistand dieser Gesellschaften fleissige Handwerker im Laufe weniger Jahre Besitzer kleiner Stücke zinsfreien Landes werden und in miethfreien Häusern darauf wohnen können.

(i.) *Arbeiter-Clubs.* — Durch die Bemühungen der 'Working Men's Club and Institute Company' sind während der letzten fünf Jahre ungefähr 300 Clubs mit 60,000 Mitgliedern gegründet worden. Ein und vierzig von diesen Clubs liegen in den hauptstädtischen Districten. Die 'Union' erklärt, dass dies nur die Erstlingsfrucht von dem ist, was sie, durch Veredlung der Arbeiter und Austrocknung der Quellen vieler Uebel, welche verschiedene andere wohlthätige Gesellschaften nur zu verdecken streben, zu erreichen hofft. Der Zweck der 'Union' ist, den Arbeitern bei der Gründung von Clubs und Instituten Hilfe zu leisten, wo sie sich, mit den Mitteln zur Erholung und Erfrischung, zu Conversation, zu Geschäften und geistiger Ausbildung versammeln können, ohne für diese Zwecke auf das Bierhaus angewiesen zu sein.

Wenn man den grossen Fortschritt bedenkt, welcher während des letzten halben Jahrhunderts in der Lebensweise der obren und mittleren Gesellschaftsklassen stattgefunden hat, so scheint die Hoffnung nicht ungegründet, dass ein entsprechender Fortschritt sich auch in den unteren Klassen der Gesellschaft offenbaren und dass die Clubs ein wirksames Mittel werden mögen, diesen so wünschenswerthen Zweck zu erreichen.

ZWEITER THEIL.—DIE BRITISCHEN COLONIEEN UND ABHÄNGIGEN STAATEN.

Statistischer Bericht über den Zustand der Britischen Colonien und abhängigen Staaten im Jahre 1864.

Colonien und abhängige Staaten	Flächen- inhalt	Gesamt- bevölkerung	Finanzen		Staats- schuld *	Handel				
			Gesamt- einnahme *	Gesamt- ausgabe *		Schiff- fahrt	Einfuhr, mit Ein- schluss von Gold- und Silberstangen		Ausfuhr, mit Ein- schluss von Gold- und Silberstangen	
						Gesamt- Tonnen- gehalt, worauf Eingangs- zoll gezahlt *	Ge- samte *	Aus dem Vereinig- ten Kö- nigreich *	Ge- samte *	Nach dem Vereinig- ten Kö- nigreich *
<i>In Europa.</i>	Quadrat- meilen	Zahl	£	£	£	Tonnen	£	£	£	£
Malta . . .	115	*136,339	169	163	189	2,235	1,762	40	1,004	625
Gibraltar . .	1½	*15,462	36	35	—	2,275	2,600	1,700	2,250	171
<i>In Asien.</i>										
Indien . . .	1,004,616	143,271,210	44,613	44,982	98,518	4,116	50,108	23,214	66,896	44,971
Ceylon . . .	24,700	1,892,540	868	1,843	350	1,070	5,527	1,652	3,112	2,015
Mauritius . .	708	310,050	638	602	600	558	2,583	825	2,250	1,089
Labuan . . .	45	2,373	8	8	—	21	84	—	48	—
Hongkong . .	29	119,321	133	159	—	2,046	keine Berichte	—	keine Berichte	—
<i>In Africa.</i>										
Natal . . .	14,397	152,704	152	119	100	64	592	441	220	187
Cap der guten Hoffnung . .	104,931	267,096	588	634	715	541	2,493	1,777	2,614	1,626
St. Helena . .	47	6,860	23	23	—	136	123	55	27	25
Goldküste . .	6,000	150,000	—	—	—	—	keine Berichte	—	keine Berichte	—
Sierra Leone .	468	41,497	49	51	2	98	190	140	202	24
Gambia . . .	20	6,748	17	18	6	66	105	45	132	27
<i>In Amerika.</i>										
Nord-Amerika:										
Canada . . .	331,280	2,507,657	2,295	2,175	12,368	2,089	9,296	4,382	8,850	3,068
Neu-Braun- schweig . . .	27,037	252,047	214	176	2,767	1,412	1,864	750	1,053	569
Neu-Scotthland	18,670	30,857	200	199	969	1,630	2,521	1,082	1,435	66
Prinz Edward's Insel . . .	2,173	80,857	44	38	68	302	338	154	203	37
Neufundland	40,200	122,638	125	125	177	281	1,067	455	1,111	283
Britisch-Columbia	200,200	11,816	104	117	164	108	500	—	1,219	—
Vancouver-In- sel . . .	13,000	23,000	71	74	40	232	743	292	80†	—
Bermuda . . .	24	11,461	31	27	—	280	371	127	143	64
Honduras . .	13,500	25,635	31	28	22	84	291	196	373	218
<i>Westindien:</i>										
Bahama-Inseln .	2,921	35,487	107	103	13	389	5,346	1,219	4,672	3,511
Turk's Insel . .	—	4,372	13	13	—	101	70	13	54	2
Jamaica . . .	6,400	441,255	309	315	804	284	1,143	628	947	813
Virgin-Inseln .	57	6,051	2	2	4	8	8	—	12	—
St. Christopher .	103	24,440	19	21	—	50	189	60	125	103
Nevis . . .	50	9,822	5	4	3	15	28	6	16	10
Antigua . . .	183	36,412	33	36	20	43	178	70	79	64
Montserrat . .	47	7,645	4	4	5	10	18	—	19	14
Dominica . . .	291	25,065	14	15	3	15	44	15	49	43
St. Lucia . . .	250	26,705	13	13	18	20	90	31	111	101
St. Vincent . .	131	31,755	20	20	3	31	136	54	156	143
Barbadoes . .	166	152,727	107	104	23	280	910	363	926	549
Grenada . . .	133	31,900	20	17	9	34	121	66	153	140
Tobago . . .	97	15,410	8	10	4	11	50	17	64	57
Trinidad . . .	1,754	84,438	207	193	245	270	884	426	1,101	212
Britisch-Guiana .	76,000	148,026	311	270	594	317	1,509	888	1,845	1,589
Falkland-Inseln .	7,600	566	9	7	—	50	19	19	10	10
<i>In Australien.</i>										
Neu-Süd-Wales .	323,437	358,278	1,985	2,327	6,073	1,254	9,386	3,856	8,117	2,559
Victoria . . .	86,831	541,800	2,800	2,883	8,444	1,262	14,975	7,899	13,898	5,300
Süd-Australien .	383,328	126,830	809	645	900	321	2,413	1,218	3,305	919
West-Australien .	978,000	15,691	72	71	2	94	169	110	112	45
Tasmania . . .	26,215	89,977	335	319	530	248	908	348	975	421
Neu-Seeland . .	106,259	98,971	1,381	1,757	1,300	800	7,000	2,700	3,500	1,500
Queensland . .	678,000	34,885	502	439	549	246	2,268	507	1,247	355

* In der obigen Tabelle ist die Bevölkerung von Malta und Gibraltar mit Ausschluss des Militärs angegeben. Die Zahlen für Finanzen, Staatsschuld, Einfuhr und Ausfuhr representiren Tausende von Pfund Sterling, und die für die Schifffahrt Tausende von Tonnen. Die Schifffahrt bezieht sich nur auf den auswärtigen Handel.

† Nur nach den Vereinigten Staaten.

Die vorliegende Skizze der Zustände des Vereinigten Königreichs würde unvollständig sein ohne einen Hinblick auf die zahlreichen, von der Britischen Krone abhängigen, Staaten. Der Vortheile, welche der Mutterstaat durch seine gewaltigen colonialen Besitzungen genießt, sind viele. Einerseits gewähren sie einen Abfluss für die überschüssige Bevölkerung des Mutterlandes und liefern grosse Vorräthe von Rohmaterialien, deren die einheimischen Fabricanten in hohem Grade bedürftig sind; andererseits sind sie bedeutende Consumenten Britischer Producte und Fabricate.

Ausserdem ist es kein geringer Vortheil für ein handeltreibendes Volk wie das Englische, in allen Welttheilen Häfen zu besitzen, wo seine Kauffahrer die vorüberziehenden Stürme in Sicherheit bestehen oder in Kriegszeiten vor feindlichen Kreuzern Zuflucht finden können.

Ein anderer und keineswegs der geringste Vortheil, welchen Grossbritannien seinen colonialen Besitzungen verdankt, ist die weltweite Verbreitung der Englischen Sprache, Religion und Regierungsform. Von Norden nach Süden und von Osten nach Westen beherrscht der Britische Scepter ein Reich, von dem man in Wahrheit behaupten kann, dass die Sonne nie darüber untergeht, und welches mehr als einhundert und funfzig Millionen Seelen zu

seinen Unterthanen zählt, die alle mehr oder weniger Britischen Gesetzen, Gewohnheiten und Einflüssen unterworfen sind.

Die hauptsächlichsten Handelsproducte der wichtigeren Colonien sind die folgenden:

Indien. Kaffee, rohe Baumwolle, Färbestoffe, Häute, indischer Hanf, Oele, Opium, Reis, Salpeter, Samen, Kaschmir-Shawle, rohe Seide, Gewürze, Bau- und Brennholz.—*Ceylon.* Zimmet, Kaffee, Cocosnussöl.—*Insel Mauritius.* Rum, Zucker.

Natal. Häute, Elfenbein und Wolle.—*Cap der guten Hoffnung.* Kupfererz, Häute, Wein, und Wolle.

Canada. Thiere, thierische Producte, Agri-culturproducte, Fische, Perl- und Pottasche und Bauholz.—*Prinz Edward's Insel.* Fische, Getreide und Rindvieh.—*Neufundland.* Kabeljau, Oele und Seehundsfelle.—*Jamaica.* Kaffee, Ingwer, Piment, Rum, Zucker und Blauholz.—*Barbadoes.* Fische, Melasse, Reis, Rum und Zucker.—*Trinidad.* Cacao, Melasse, Rum und Zucker.—*Britisch-Guiana.* Melasse, Rum und Zucker.

Neu-Süd-Wales. Gold, Häute, Talg und, Wolle.—*Victoria.* Gold, Talg und Wolle.—*Süd-Australien.* Kupfer, Korn, Gold und Wolle.—*Neu-Seeland.* Gold und Wolle.—*Queensland.* Gold, Häute, Talg und Wolle.

STATISTISCHE BEMERKUNGEN ÜBER DEN ZUSTAND DES HANDELS UND DER GEWERBE IM VEREINIGTEN KÖNIGREICH,

ALS EINLEITUNG ZU DEN VERSCHIEDENEN KLASSEN DER PARISER ALLGEMEINEN AUSSTELLUNG VOM JAHRE 1867.

GRUPPE II.

(KLASSEN VI. bis XIII.)

APPARATE UND ANWENDUNG DER INDUSTRIEWISSENSCHAFT.

Klasse VI.

BUCHDRUCKERKUNST UND BÜCHER.

Die Buchdruckerkunst ist in dem Vereinigten Königreich zu grosser Vollkommenheit gebracht worden, und einen der besten Beweise für ihre Entwicklung liefert vielleicht die tägliche Herstellung von Tagesblättern wie die 'Times' und anderer hervorragenden Zeitungen. Die blosse Thatsache, dass man die Mittel besitzt, viele Tausende von Exemplaren solcher Zeitungen in wenigen Stunden zu setzen und zu drucken, bezeichnet hinlänglich den hohen Stand des Buchdruckergeschäfts in England.

Unter den Ursachen, welche seit kurzem die Vervollkommnung der Buchdruckerkunst in England bewirkt haben, sind die Abschaffung der Stempelsteuer auf Zeitungen und der Accise-Steuer auf Papier die wichtigsten. Die Beseitigung dieser Steuern machte es möglich, dass Zeitungen, welche an Umfang den alten gleich kamen, für einen Penny hergestellt und verkauft werden konnten, und die Folge davon war, dass, während die Zeitungen der Masse der Bevölkerung zugänglich gemacht wurden, grosse Verbesserungen in den verschiedenen mit ihrer Herstellung verbundenen Processen stattfanden. Die zunehmende Bildung der verschiedenen Volksklassen hat ausserdem eine grosse Nachfrage nach gedruckten Büchern veranlasst, und der Einfluss der ungeheuren Production billiger, zum Zwecke der Belehrung und Unterhaltung während der letzten Jahre gedruckten Bücher kann, ohne Werke einer höhern Gattung herabzusetzen, kaum überschätzt werden. Auch die Gravirkunst und die Kunst des Farbendrucks haben gleichzeitig einen hohen Grad der Vervollkommnung erreicht, wie eine Ansicht der ausgestellten Proben beweisen wird.

Die Zahl der in den verschiedenen Zweigen

des Buchdrucks arbeitenden Personen war nach dem Census von 1861:—

In England und Wales	30,590
Schottland	4,470
Irland	2,815

Summa . . . 37,905

Von dieser Zahl arbeiteten 13,937 Personen in den Buchdruckereien in London.

In London ist der Arbeitslohn für Buchdrucker festgesetzt wie folgt:—

Setzer	36s. die
Drucker	Woche von
Maschinenmeister	60 Stunden,

mit drei 3d. extra per Stunde für Ueberzeit zwischen 9 Uhr Abends und 8 Uhr Morgens an Wochentagen. Keine Berechnung darf sich auf weniger als 1s. extra in den Stunden zwischen 10 Uhr Abends und 6 Uhr Morgens an Wochentagen belaufen. Sonntagsarbeit wird nach einer Veranschlagung von 6d. extra per Stunde berechnet, aber in keinem Falle soll der Arbeiter weniger erhalten als 2s. 6d. extra.

In vielen grossen Buchdruckereien wird der Satz von Büchern stückweise bezahlt und gewöhnlich nicht von Setzern gethan, welche in gewissem Gelde stehen. Setzer können auf diese Weise 20s. bis 50s. wöchentlich verdienen, je nach der Art der Arbeit und dem Geschick und Fleiss des Arbeiters.

Zeitarbeit wird stückweise und zu unregelmässigen Stunden ausgeführt.

Die in Edinburg gezahlten Durchschnittslöhne waren im Jahre 1866:—

	In der Woche von 57 Stunden
Setzer	20 bis 40
Drucker	26 „ 28
Lehrburschen	3 „ 20

Der Werth der in das Vereinigte Königreich importirten und aus demselben exportirten Bücher, sonstigen Abdrücke (prints), Kupferstiche etc. etc. war im Jahre 1865:—

	Importirt £	Exportirt £
Bücher	119,486	511,388
Sonstige Abdrücke, Kupferstiche etc. }	36,525	30,936

Berichte über die Zahl der jährlich gedruckten Bücher fehlen. Die Zahl registrirter Zeitungen und Journale in den verschiedenen Theilen des Vereinigten Königreichs war während des mit dem 30. Juni 1864 endenden Jahres:—

In England	1,307
Wales	60
Schottland	133
Irland	157
Summa	1,657

Die hauptsächlichsten Verbesserungen seit dem Jahre 1851, welche von der in Klasse 37 der Londoner Ausstellung von 1862 sitzenden Jury hervorgehoben wurden, waren: die Einführung von Maschinen zum Schriftgiessen, anstatt des frühern Giessens mit der Hand, wodurch viel Arbeit gespart wird, und die einer Setz- und Ablegmaschine; die Einführung horizontaler Druckpressen und die Anwendung des Stereotypens auf die rasche, sichere und öconomische Hervorbringung von Zeitungen, welche eine grosse Circulation haben. Die durchgängige Vortrefflichkeit der Typographie, selbst in den billigen Büchern, wurde ebenfalls empfohlen, indem man besonders die Klarheit der Schrift und die Reinlichkeit der Arbeit lobte. Im Farbendruck war ein grosser Fortschritt bemerkbar, und in der Lithographie, und vor allem der Chromolithographie, war die Verbesserung noch auffallender.

Von dem Fortschritt, welcher in der Herausgabe 'neuer Auflagen schon bekannter Bücher' gemacht worden ist, giebt die Thatsache der kürzlichen Veröffentlichung von Shakspeare's gesammelten Werken für 1s. und der 'Waverley-Romane' für 6d. per Band, eine Vorstellung.

Klasse VII.

PAPIER; PAPIERHANDEL; BUCHBINDEREI;
MATERIALIEN ZUR WASSERFARBEN-
MALEREI UND ZUM ZEICHNEN.

1. Die Hauptindustrie, auf welche diese Klasse sich bezieht, ist die des Papiers, und dies ist eine Industrie von grosser Bedeutung. Papier wird in verschiedenen Theilen Englands gemacht; die Papiermühlen in der Grafschaft Kent aber sind lange wegen der Production schöner Schreib- und Zeichnungspapiere berühmt

gewesen. Eine umfangreiche Verfertigung der gröberen Papierarten findet in Newcastle statt. Auch Schottland und Irland fabriciren Papier, obschon in geringern Quantitäten. Die Zahl der privilegierten Papierfabricanten in den verschiedenen Abtheilungen des Vereinigten Königreichs belief sich im Jahre 1865 auf:—

In England and Wales	316
Schottland	56
Irland	20
Summa	392

Von den anderen zu dieser Klasse gehörenden Gegenständen machen Tinte und Druckerschwärze, Siegellack, Federn und sonstige auf den Schreibtisch gehörende Gegenstände, Register und Wasserfarben, jeder einen besonders und wichtigen Handelszweig aus, obgleich es, mit Ausnahme des Stahlfedergeschäfts, keine genauen Angaben über die Zahl der Personen giebt, welche mit der Verfertigung der verschiedenen, oben erwähnten Gegenstände beschäftigt sind. Die Zahl der mit der Herstellung einiger dieser Gegenstände in London beschäftigten Personen beläuft sich (mit Ausschluss der Gesellen) auf:—

Fabricanten:	
von Druckerschwärze	21
„ Tinte	43
„ Siegellack	24
„ Federposen	9

Berichte über die Zahl der Arbeiter, welche in den obigen Industriezweigen beschäftigt sind, fehlen. Aus der ungeheuren jährlichen Bücherproduction in England ergibt sich als eine natürliche Consequenz, dass das Buchbindergeschäft, welches ebenfalls zu dieser Klasse gehört, eine grosse Ausdehnung hat und in Verbindung mit dem Buchhandel in den Hauptstädten des Königreichs betrieben wird.

Der Mittelpunkt des Englischen Stahlfederhandels ist in Birmingham, und nach einem Bericht von Mr. Timmins an die 'British Association,' welche im Jahre 1865 in dieser Stadt ihre Sitzung hielt, betrug die Zahl der damals bestehenden Stahlfederfabriken 12; die Zahl der darin beschäftigten Männer, 360; der Frauen und Mädchen, 2,050; der Pferdekraft, ungefähr 330; die wöchentliche Federfabrication, 98,000 Gross; die wöchentlich verbrauchte Masse von Stahl, von 9½ bis 10 Tonnen. Der Werth der gewöhnlichen Federn schwankt zwischen 1½d. und 1s. per Gross, der von Stiefledern zwischen 7d. und 12s. per Gross und andere Arten zu höheren Preisen, je nach der Grösse und Arbeit.

Die meisten Processen der Federmanufactur, das Schneiden der Platten, das Bohren der Löcher, das Bilden der Spitzen, das Bessiren der Muster und das Einprägen der Namen werden durch Handpressen ausgeführt, Dampfmaschinen hingegen nur für die gewöhnlichsten Arten von Federn angewandt.

Die Lage der Arbeiter ist befriedigend, da die Fabriken sehr gesund sind. Der Arbeitslohn von Mädchen schwankt zwischen 5s. und 12s., und bei einigen zwischen 2s. 6d. und 3s. 6d.; während geschickte, ältere Arbeitsfrauen zwischen 15s. und 20s. wöchentlich verdienen. Männer verdienen zwischen 18s. und 25s., Knaben 4s. 6d. bis 8s. und, wenn sie geschickt sind, von 8s. bis 16s. Geschickte erwachsene Männer verdienen von 30s. bis 80s., und sogar 90s. bis 100s., wöchentlich. Die Arbeitsstunden schwanken zwischen $52\frac{1}{2}$ und 57 per Woche.

2. Die grössere Masse des zu der Papierfabrication verwendeten Rohmaterials wird in England gewonnen, obgleich eine beträchtliche Masse von Lumpen und anderen Papiermaterialien alljährlich vom Auslande eingeführt wird. Während der letzten zehn Jahre hat man zahlreiche Substanzen als Substitute für Lumpen zur Papierfabrication in Vorschlag gebracht; aber von allen diesen sind nur Esparto und Stroh bis jetzt in grossen Quantitäten gebraucht worden.

Die nachstehende Tabelle zeigt die Quantität von Lumpen und anderer Arten von Papier producirenden Stoffen, welche während der letzten vier Jahre in das Vereinigte Königreich importirt wurden:—

	1862	1863	1864	1865
	Tonnen	Tonnen	Tonnen	Tonnen
Lumpen, Linen und Baumwolle .	21,966	25,287	23,732	18,273
Esparto und andere vegetabilische Fasern .	878	19,326	43,403	52,324
Alte Seile etc.	932	736	528	463
Ganzzeug .	166	233	156	94
Gesamteinfuhr	23,942	45,582	67,819	71,154
Rückexport .	3,513	1,510	243	1,505
Bleibt für Verbrauch .	20,429	44,072	67,576	69,649

Man wird bemerken, dass die grosse Zunahme in der obigen Tabelle der vermehrten Einfuhr von Esparto zuzuschreiben ist, welcher von Spanien kommt. Er wird benutzt zu der Fabrication von gewöhnlichen und Druckpapieren, nach welchen seit kurzem eine grosse Nachfrage statt gefunden hat.

3. Berichte über die Zahl der gegenwärtig im Papierhandel arbeitenden Personen fehlen. Nach dem Census von 1861 war die Zahl der so beschäftigten Arbeiter:—

	Männer	Frauen	Summa
In England und Wales .	7,746	5,611	13,357
Schottland .	1,648	2,773	4,421
Irland .	289	113	402
	9,683	8,497	18,180

Die Zahl der Buchbinder und Falzer zu derselben Zeit war:—

	Männer	Frauen	Summa
In England and Wales .	6,556	5,364	11,920
Schottland .	1,176	1,194	2,370
Irland .	448	686	1,134
	8,180	7,244	15,624

Ein grosser Theil des Buchbindergeschäfts wird in der Hauptstadt betrieben. Im Jahre 1861 waren 3,691 Männer und 4,063 Frauen so beschäftigt.

Man muss sich jedoch erinnern, dass diese beiden Geschäfte seit 1861 zugenommen haben.

Nach einem Berichte, welcher im Jahre 1866 dem Handelsministerium durch die Edinburger Handelskammer vorgelegt wurde, waren die in jenem District den mit der Papierindustrie beschäftigten Arbeitern gezahlten Durchschnittslöhne:—

	Per Woche	
	s.	d.
An Maschinisten .	20	bis 22 0
Mechaniker .	17	„ 20 0
Fertigmacher .	12	„ 18 0
Bleicher .	16	„ 20 0
Lumpenschneider	13	„ 16 0
Leimer .	17	„ 18 6
Trockner .	15	„ 16 6
Papierschnneider	15	„ 18 0
Mühlenbauer .	22	„ 28 0
Heizer .	15	„ 18 0
Arbeiter .	11	„ 17 0

Arbeitsstunden: zehn bis zwölf täglich.

Berichte über die in den Papiermühlen in der Nachbarschaft von London gezahlten Arbeitslöhne fehlen; sie sind sehr verschieden, werden aber, der Regel nach, für höher gehalten als die oben angegebenen.

5. Eine beträchtliche Zunahme in der Einfuhr von Papier hat seit 1860 stattgefunden, was vor allem der Abschaffung der Papiersteuer zu verdanken ist:—

		Fremdes Papier (mit Ausnahme von Tapeten)		
		Importirt	Exportirt	Zum Verbrauch gelassen
		Centner	Centner	Centner
Quantitäten	1860 .	42,446	9,217	33,229
	1865 .	239,707	24,537	215,170
Werth .	1860 .	£ 128,383	£ 25,995	£ 102,388
	1865 .	£ 494,222	£ 57,477	£ 436,745

6. Die Quantität und der Werth des während desselben Zeitraums exportirten Englischen Papiers (mit Ausnahme von Tapeten) war:—

Quantität	1860 .	Centner 112,514
	1865 .	„ 141,075
Werth .	1860 .	£ 450,589
	1865 .	„ 474,741

Eine Vergleichung der obigen Tabellen

ergiebt, dass die importirten Papierarten bedeutend billiger sind als die exportirten.

Die während des Jahres 1865 exportirte Quantität Englischer Lumpen und Papier producirender Stoffe betrug 6,704 Tonnen.

Der Werth der während der Jahre 1861–65 aus dem Vereinigten Königreich exportirten, zum Papierhandel gehörenden Artikel (abgesehen von Papier) war:—

	£
1861	287,000
1862	285,000
1863	342,000
1864	360,000
1865	405,000

7. Die Benutzung des Dampfes als einer bewegendenden Kraft ist in England beinahe allgemein geworden, und, obgleich der Preis der Arbeit in England höher steht als auf dem Festlande, ist es, bei der Sorgfalt und dem Geschick der Englischen Arbeiter und der grossen Ueberlegenheit der angewandten Maschinerie, dennoch zweifelhaft, ob die Papierfabrication in England nicht ebenso billig ist wie in andern Ländern.

8. Mr. Richardson; aus Newcastle, bemerkt, dass die hauptsächlichsten Verbesserungen, welche während der letzten Jahre in der Papierfabrication stattgefunden haben, in dem Detail und der allgemeinen Wirksamkeit der Maschinerie bestehen; wodurch eine bei weitem grössere Masse von Papier mit demselben Apparat gemacht wird als früher, und in der vollkommeneren Handhabung der chemischen Processe, wodurch ein früher völlig nutzloses Material zu gewöhnlichem Ladenpapier verarbeitet und schlechte Lumpen, die man früher zu grobem Papier verarbeitete, zu einem guten weissen Papier gereinigt und gebleicht werden. Beinahe sämtliches Zeitungspapier enthält einen Theil Esparto, und einiges enthält nicht mehr als ein Viertel Lumpenmaterial.

Nach der Abschaffung der Stempelsteuer auf Zeitungen trat eine grosse Anzahl billiger Journale in's Leben und es entstand eine grosse Nachfrage nach billigem Papier. Dieser Nachfrage ist man theils durch die Verfertigung von Papier aus Esparto etc. begegnet und theils durch die Einfuhr billigen Papiers vom Auslande. Die Jury der Londoner Ausstellung von 1862, welche die zunehmende Neigung zur Fabrication untergeordneter Papierarten bemerkte, erhob weislich ihre Stimme gegen die Benutzung derselben für Werke, welche Jahre lang zu dauern bestimmt waren; aber für die Zwecke des Tages ist die Versorgung mit billigem Papier ein unschätzbares Gut für die Masse der Nation.

Ein grosser Fortschritt hat während der letzten Jahre in allen Branchen der Buchbinderei stattgefunden, besonders in der Anwendung von Farben und Ornamenten auf die billigeren Arten. So' erstaunlich war die Erweiterung dieses Geschäfts, dass die Ein-

führung von Maschinerie zur Besorgung der Bossir- und Blindwerkarbeit ('blind-tooling') nothwendig wurde, damit der Buchbinder mit den an sein Geschäft gestellten Anforderungen Schritt halten könne.

Klasse VIII.

ANWENDUNGEN DES ZEICHNENS UND MODELIRENS AUF MANUFACTUR-GEGENSTÄNDE.

Obgleich Berichte über den actuellen Fortschritt, welcher während der letzten Jahre in den verschiedenen dieser Klasse angehörenden Geschäftszweigen gemacht wurde, fehlen, kann doch im Allgemeinen bemerkt werden, dass ebensowohl in dem Style der auf Manufacturen angewandten Zeichnungen eine beträchtliche Verbesserung stattgefunden hat, als ein grösserer Geschmack entwickelt wurde in den Künsten des Modellirens, Gravirens und Stempelschneidens.

Da die Zeichnungen für Manufacturgegenstände meistens privatim ausgeführt werden, liegt das einzige Mittel zur Erprobung ihres wirklichen Fortschritts in öffentlichen Ausstellungen; und es ist daher die Sache der Preisrichter bei den verschiedenen Manufactur-Klassen der gegenwärtigen Ausstellung, zu entscheiden, in welchem Masse von den Englischen Zeichnern seit der letzten Pariser Ausstellung von 1855 Fortschritte gemacht worden sind. Es steht zu hoffen, dass das Departement für Wissenschaft und Kunst in jenen Entscheidungen eine ausreichende Belohnung für die Arbeit finden möge, mit welcher es viele Jahre hindurch beschäftigt gewesen ist, der Arbeit nämlich der erweiterten Anwendung der Kunst auf alle Zweige der nationalen Industrie.

Klasse IX.

PHOTOGRAPHISCHE PROBEN UND APPARATE.

Die Photographie, als productiver Industriezweig und unabhängig von ihrer Bedeutung als Kunst betrachtet, giebt in ihren verschiedenen Branchen mehreren Tausend Arbeitern Beschäftigung.

Es liegt nicht innerhalb der Grenzen unserer Aufgabe, die Geschichte ihrer Erfindung und raschen Entwicklung darzustellen, sondern, wie von dem Berichterstatter über Photographie in der Londoner Ausstellung von 1862 bemerkt wurde, 'es genügt zu sagen, dass es kaum einen Zweig der Kunst, der Wissenschaft, der Oeconomia, ja der menschlichen Interessen in ihrem weitesten Umfange giebt, in

welchem die Anwendung dieser Kunst nicht von Nutzen gewesen ist.'

Statistische Angaben über die Zahl der Personen, welche gegenwärtig in den verschiedenen Branchen des Photographiegeschäfts arbeiten, fehlen; aber nach dem Census von 1861 waren damals 2,957 Personen als photographische Künstler beschäftigt. Die Zahl der in den verschiedenen Branchen des Geschäfts in London arbeitenden Personen ist (mit Ausschluss der Hilfsarbeiter) wie folgt:—

Photographische Künstler . . .	284
Apparatmacher	38
Albummacher	14
Fabricanten von photographischen	} 17
Chemicalien	
Photographische Zeichner und Ein-	} 6
fasser	
Fabricanten von Photographie-Papier	15
Photographien-Drucker	7
Photographien-Händler	16
Verkäufer photographischer Materia-	} 28
lien	

Obleich die Jury über Photographie bei der Londoner Ausstellung der Meinung war, dass seit der vorhergehenden Ausstellung von 1851 grosse Fortschritte gemacht worden seien, so hielt sie doch die Kunst für viel grösserer Vervollkommnung fähig und glaubte, dass die nächste internationale Ausstellung Resultate zeigen werde, mit welchen die damals beurtheilten 'an Schönheit, Umfang und Bedeutung keinen Vergleich würden aushalten können.'

Klasse X.

MUSIKALISCHE INSTRUMENTE.

Die Verfertigung musikalischer Instrumente bildet ein ausgedehntes Geschäft in dem Vereinigten Königreich. Die Hauptarten von Instrumenten, welche gemacht werden, sind Orgeln, Pianofortes, Harfen und Blechinstrumente; die wichtigste Stellung jedoch nehmen die Pianofortes ein. Die Pianofortes der Londoner Fabricanten sind lange wegen der Schönheit ihres Tones und der Vortrefflichkeit ihrer Ausarbeitung berühmt gewesen. Die verbesserten Methoden der Construction, welche in den letzten Jahren durch die Englischen Orgelbauer zur Anwendung gebracht sind, haben diesen Instrumenten im Inlande wie im Auslande einen hohen Ruf erworben.

Genauere statistische Angaben über die Gesamtzahl der in dem Vereinigten Königreich mit der Verfertigung der verschiedenen Arten musikalischer Instrumente beschäftigten Personen fehlen; aber die nachstehende Tabelle über den Werth der Einfuhr dieser Artikel während der fünf Jahre 1861–65 zeigt, dass die inländische Production der inländischen Nachfrage nicht gleichkommt.

Werth der verschiedenen Arten der in das Vereinigte Königreich eingeführten musikalischen Instrumente.

Jahre	Piano- fortes	Harmo- niums u. Seraphine	Spieldosen	Andere Arten	Summa
	£	£	£	£	£
1861	24,542	33,971	13,774	91,271	163,558
1862	43,343	53,681	13,494	80,388	190,906
1863	97,378	18,372	12,495	80,943	209,188
1864	111,234	15,548	17,015	80,452	224,249
1865	66,702	68,313	30,384	78,414	243,813

Die Einfuhr von Pianofortes und Harmoniums findet hauptsächlich von Frankreich statt. Die Zahl von Fabricanten musikalischer Instrumente ist in London (mit Ausschluss der Arbeiter) wie folgt:—

Arten der Instrumente	Zahl von Personen
Concertina	11
Trommel	9
Flöte und Oboe	14
Guitarre	4
Harmonicum	1
Harmonium	28
Harfe	4
Horn, Trompete und Pfeife	7
Militärische	10
Seraphine	3
Violine	8
Violinbogen	8
Violoncello	2
Spieldosen	5
Pianoforte	286
Orgel	43
Saitenfabricanten	17
Verschiedene	47

Der Werth der in England verfertigten und während der fünf Jahre 1861–65 exportirten musikalischen Instrumente war:—

Jahre	Pianofortes	Andere Arten	Summa
	£	£	
1861 . . .	nicht	angegeben	147,144
1862 . . .	82,615	69,155	151,770
1863 . . .	112,821	53,972	166,693
1864 . . .	107,871	59,980	167,851
1865 . . .	93,071	59,757	152,828

Klasse XI.

MEDICINISCHE UND WUNDÄRZTLICHE INSTRUMENTE UND APPARATE.

Obleich man von den in dieser Klasse begriffenen Gegenständen nicht sagen kann, dass sie eine umfangreiche Industrie in England ausmachen, besitzen sie dennoch einen Werth, der kaum nach einem Geldmassstabe gemessen werden kann. Es giebt keine edlere Kunst als die des Wundarztes, und die Instrumente, welche er in der Ausübung derselben anwendet, haben

mithin an der mit seinem Berufe verknüpften Ehre Antheil.

Fast alle in England gebrauchten wundärztlichen Instrumente sind von inländischer Manufactur; und wegen der in verschiedenen Ländern befolgten verschiedenen Behandlungsweisen, findet nur ein geringer Austausch dieser Klasse von Gegenständen zwischen dem Vereinigten Königreich und andern Ländern statt. Die Zahl von Fabricanten wundärztlicher Instrumente in London ist 95; die von Fabricanten wundärztlicher Instrumentkasten, 5; und die von Fabricanten wundärztlicher Bandagen, 25. Die Hauptmasse der Englischen wundärztlichen Instrumente wird in Sheffield gemacht; aber die Fabricate der Londoner Häuser haben den Ruhm, die aller andern Fabricanten der Welt zu übertreffen.

Der Werth der im Jahre 1865 eingeführten wundärztlichen oder anatomischen Instrumente war 566£., der ausgeführten 12,752£.

Klasse XII.

MATHEMATISCHE INSTRUMENTE UND APPARATE ZU WISSENSCHAFTLICHEM UNTERRICHT.

Die Verfertigung der zu dieser Klasse gehörenden Gegenstände ist ansehnlich; aber bei der Abwesenheit jeder industriellen Statistik giebt es kein Mittel, den Zustand der verschiedenen Branchen des Geschäfts genau zu bestimmen. Die Zahl von Personen, welche (mit Ausschluss von Arbeitern) in London in diesem Industriezweige beschäftigt sind, ist wie folgt:—

Fabricanten mathematischer Instrumente	} 72
Fabricanten mathematischer Instrument-Kasten	} 7
Fabricanten nautischer Instrumente	32
„ philosophischer „	78
„ optischer „	204

Ausser der inländischen Production existirt ein auswärtiger Handel mit wissenschaftlichen Instrumenten. Der Werth solcher in das Vereinigte Königreich eingeführten Instrumente

und Apparate und der ausgeführten Britishen Gegenstände derselben Gattung war während des Jahres 1865:—

	Einfuhr £	Ausfuhr £
1865	14,224	71,058

Klasse XIII.

LANDKARTEN UND GEOGRAPHISCHE UND COSMOGRAPHISCHE APPARATE.

Die bedeutendsten Arbeiten, welche in dieser Klasse Erwähnung verdienen, sind die aus dem Ordnanz- und geologischen Nivellements-Bureau hervorgegangenen Karten. Die ersten sind nach drei Massstäben angefertigt, und die nach dem Massstabe von einem Zoll auf die Meile ist eine vortreffliche Karte des Landes. Die geologische Karte des Vereinigten Königreichs, von der ein Theil in der Pariser Ausstellung von 1855 ausgestellt war, wird von allen competenten Richtern als einzig in ihrer Art gerühmt. Seit 1855 ist ein Nivellement der wichtigsten Bergbau-Districte unternommen worden, und die darauf bezüglichen Karten sind vollendet. Die Karten von den nördlichen Grafschaften Englands und Irlands werden nach dem Massstabe von sechs Zoll auf die Meile ausgeführt. Mehr als die Hälfte des Flächeninhalts von England und Irland ist schon gemessen worden, und wenn man die Art der Arbeit berücksichtigt, wird alljährlich ein grosser Fortschritt damit gemacht.

Es fehlt an Mitteln zur Schätzung des Werthes oder des Umfangs des allgemeinen Landkartengeschäfts in England; aber es ist von grosser Bedeutung, und die producirtten Gegenstände sind von hohem Werth. Die Zahl der in London mit diesem Industriezweige beschäftigten Personen beträgt gegenwärtig (mit Ausschluss der Arbeiter):—

Verkäufer und Herausgeber von Karten	} 24
Verfertiger, Colorirer und Einfasser von Karten	} 44
Kartenstecher	18

Der Werth der im Jahre 1865 exportirten Land- und Seekarten betrug 6,571£.

GRUPPE III.

(KLASSEN XIV. bis XXVI.)

MÖBEL UND ANDERE FÜR WOHNUNGEN BENUTZTE GEGENSTÄNDE.

Klasse XIV.

KUNSTMÖBEL.

KEIN Zweig der einheimischen Industrie hat von den internationalen Ausstellungen grösseren Nutzen gehabt als der des Kunstmöbelgeschäfts. Vom Beginn unseres Jahrhunderts bis zum Jahre 1851 wurde im der Verfertigung von Hausmöbeln im Vereinigten Königreich verhältnissmässig wenig Fortschritt gemacht; aber seit jenem Zeitpunkt hat sich eine entschiedene Verbesserung kund gethan, nicht allein in Bezug auf die Oeconomie der Arbeit, sondern auch in Zeichnung und Ornamentirung, und hinsichtlich der bessern Anpassung der Gegenstände an die Zwecke, für welche sie bestimmt sind. Es erfordert nur eine oberflächliche Bekanntschaft mit dem modernen häuslichen Leben in England, um zu bemerken, welche grosse Veränderungen innerhalb der letzten zehn oder funfzehn Jahre in der innern Ausschmückung der Wohnhäuser der obern und der mittleren Gesellschaftsklassen stattgefunden haben; und es kann kaum ein Zweifel darüber bestehen, dass die Zunahme der ästhetischen Erziehung eine noch vermehrte Production und Würdigung von Gegenständen herbeiführen wird, welche die drei zweckdienlichen Erfordernisse vereinigen: Schönheit der Zeichnung und Ornamentirung und Vortrefflichkeit der Arbeit.

Die Zahl der in London in den verschiedenen Branchen der Kunstmöbel-Industrie beschäftigten Personen ist (mit Ausschluss der Arbeiter) wie folgt:—

Kunsttischler	. . . .	812
Tapezirer	. . . .	486
Bilderschneider und Vergolder	. . . .	342
Französische Polirer	. . . .	142
Spiegelfabricanten	. . . .	61
Versilberer von Spiegelglas	. . . .	24
Schnitzer und Einleger von Kunst-	} 108	
möbeln		
Fabricanten von Bettstellen	. . . .	43
Ditto von eisernen	. . . .	44
Stuhl-, Sofa- und Schemelmacher	. . . .	252

Der Werth der Holzmöbel und Kunstschlerwaaren, welche im Jahre 1865 in das Vereinigte Königreich importirt wurden, betrug

128,925*l.*, und der exportirten Englischen Möbel und Kunsttischlerwaaren 289,887*l.*

Klasse XV.

TAPEZIER- UND DECORATIONS-ARBEIT.

Der eben erwähnte Fortschritt in der Verfertigung der zu der vorhergehenden Klasse gehörenden Gegenstände hat sich nothwendigerweise auch auf die in dieser Klasse einbegriffenen erstreckt. Die zunehmende Wohlhabenheit der Mittelklassen hat besonders eine grössere Nachfrage nach decorativer Arbeit in der innern Einrichtung ihrer Wohnungen veranlasst. Auch in der Möblirung von Kirchen hat eine bemerkenswerthe Verbesserung stattgefunden, da die seit kurzem eingetretene Wiederbelebung der alten Architectur-Style ein höheres Mass von Verzierungen in der innern Ausschmückung der Gebäude beinahe nothwendig machte.

Die Hauptfabrication von modellirten Gegenständen ist die des Papier-mâché, welche besonders in Birmingham betrieben wird, zahlreiche decorative Mobiliarstücke hervorbringt und einigen Hundert Arbeitern Beschäftigung giebt. Die Durchschnittslöhne für gewöhnliche Arbeiter betragen von 10*s.* bis 16*s.* wöchentlich; und für Decorations-Artisten von 30*s.* bis 50*s.* Es heisst, dass diese letztere Klasse von dem in der lokalen Kunstschule in Birmingham ertheilten Unterricht bedeutenden Nutzen gehabt habe.

Klasse XVI.

CRYSTALL, KUNSTGLAS UND BUNTES GLAS.

1. Die Hauptarten des in dem Vereinigten Königreich gemachten Glases sind Spiegelglas, Kronglas, Tafelglas und Flintglaswaaren. Die Haupt-Glasfabriken sind in St. Helen's, in Lancashire; aber es giebt auch sehr grosse Glaswerke in andern Districten, besonders die der Messrs. Chance, in Birmingham, und der Messrs. Hartley, in Sunderland. Flintglas wird auch in London gemacht. Das Glasflaschengeschäft, welches hauptsächlich in der Nähe von Newcastle betrieben wird, hat

eine sehr grosse Ausdehnung. Buntes oder gemaltes Glas wird auch in London und in Sunderland und Birmingham fabricirt. Auch Glas für optische Zwecke, obgleich natürlicherweise kein bedeutender Geschäftszweig, wird in dem Vereinigten Königreiche gemacht; und das von Messrs. Chance in Birmingham zur Benutzung für Leuchthürme verfertigte ist wohlbekannt in der wissenschaftlichen Welt.

Obgleich die Fabrication dieses schönen Materials jetzt eine der Haupt-Industrien des Landes bildet, so hat sie doch erst innerhalb der letzten zwanzig Jahre rasche Fortschritte gemacht. Bis zum Jahre 1845 hielten die der Fabrication aufgelegten übermässigen Accise-steuern und die zur Eintreibung jener Steuern nothwendigen lästigen Verordnungen ihre Entwicklung völlig auf; in der That nahmen zwischen den Jahren 1789 und 1844 die Quantitäten von Glas, welche gemacht und zum Verbrauch behalten wurden, eher ab als zu, statt mit der Zunahme der Bevölkerung Schritt zu halten. Seit der Abschaffung der Glassteuer, jedoch, hat sich das Geschäft ausserordentlich erweitert, und die Beseitigung der Fenstertaxe im Jahre 1851 hatte einen noch grösseren Aufschwung der Glasindustrie des Landes zur Folge.

2. Die in dem Glasgeschäft gebrauchten Rohmaterialien verschafft beinahe ausschliesslich das Land, obgleich in einigen Branchen Sand von Fontainebleau benutzt wird.

3. Die officiellen statistischen Angaben über die Zahl der mit der Englischen Glasfabrication beschäftigten Personen reichen nicht über das Jahr 1861 hinaus; damals war die folgende Zahl von Personen damit beschäftigt:—

	Männer	Frauen	Summa
In England und Wales .	13,809	1,327	15,046
Schottland . . .	1,189	28	1,517
Irland . . .	231	31	262
Summa . . .	15,229	1,296	16,525

Die nachstehenden Auszüge aus einem Bericht von Mr. H. Chance an die 'British Association' in Birmingham im Jahre 1865 werden die Bedeutung einiger Zweige dieser Industrie in der Gegenwart darthun. Die wöchentliche Production von Spiegelglas beträgt ungefähr 100,000 Fuss. Es giebt sieben Fabricanten von Kron- und Tafelglas, von welchen drei fünf und siebenzig Procent der Gesamtmasse liefern. Die Zahl der in diesen drei Glaswerken beschäftigten Arbeiter wird zu 2,500 angegeben, die verfertigte Glasmasse zu 17,000 Tonnen. Ueber die Production von Flintglas giebt es keine vollständigen statistischen Angaben; die jährliche Production dieser Glasart in dem Tyne- und Wear-District allein wird auf 10 Millionen Pfund geschätzt. Birmingham liefert ungefähr 5 Millionen und Stourbridge 3½ Millionen Pfund jährlich. Die Fabrication von Glasflaschen in dem Tyne- und Wear-District während des Jahres 1862 wird von

Mr. Swinburne zu 4,230,000 Dutzend angegeben.

4. Die nachstehenden Durchschnittslöhne wurden im Jahre 1866 in Birmingham für die Fabrication von Flintglas und Artikel für den Hausbedarf gezahlt:—

An Männer.

Per Woche von 45 Stunden:	s. d.	s. d.
Erste Klasse . . .	48 0	bis 49 0
Zweite Klasse . . .	42 0	„ 44 6
Dritte Klasse . . .	30 0	„ 40 6
Vierte Klasse . . .	22 0	„ 34 0
Fünfte Klasse . . .	10 0	„ 31 0
Sechste Klasse . . .	21 8	

Per Woche von 55 bis 60

Stunden:

Glasschneider . . . 24 0 „ 32 0

Per Woche von 56 Stunden:

Aussonderer (teazers), Mischer, } 25 0
Packer etc. }

An Frauen.

Per Woche von 50 Stunden:

Beschäftigt als Mischer, Packer etc. 10 0

In einigen Zweigen des Glasgeschäfts sind die Beziehungen zwischen Arbeitgebern und Arbeitern und die Gewohnheiten der Arbeiter selbst grosser Verbesserung fähig. Mr. Swinburne bemerkt, dass die Beziehungen zwischen den Meistern und Arbeitern in den Blasglas- und Flaschengeschäften einer chronischen Arbeitseinstellung ('strike') gleichkommt. Ausserdem wird durch eine 'drink-money,' 'Trinkgeld,' genannte Bezahlung, welche über die Löhnung hinaus gegeben und täglich zum Ankauf berauschender Getränke verwandt wird, ein allgemeiner Mangel an Solidität in den Gewohnheiten der Arbeiter erzeugt, welcher in den meisten Fällen mit Trunksucht endet. Ueber andere Branchen wird bemerkt, dass die Arbeiter einen hohen Grad von Intelligenz und Erziehung besitzen und sich die verschiedenen für den intellectuellen Fortschritt der arbeitenden Klassen gegründeten Institute eifrig zu Nutzen machen.

5. Die nachstehende Tabelle giebt einen vollständigen Bericht über die während des Jahres 1865 in das Vereinigte Königreich eingeführten verschiedenen Glasarten:—

	Quantität	Werth
	Centner	£
Fensterglas (mit Ausnahme von Spiegelglas) . . .	264,056	211,246
Flintglas, geschnitten, geführt, oder ornamentirt . . .	32,961	172,405
Gewöhnliches Flintglas, mit Einschluss von Flaschen . . .	23,039	32,254
Spiegelglas . . .	28,631	133,613
Versilbertes Glas oder Spiegel . . .	1,699	10,700
Flaschen von grünem oder gewöhnlichem Glas . . .	17,113	8,984
Nicht aufgezählte Fabricate . . .	12,650	60,773
Summa . . .	380,149	629,975
	Pfunde	
Glasperlen	3,365,221	178,310

Die Einfuhr von Fenster- und Flintglas findet besonders von Belgien und Hamburg, die von Spiegel- und versilbertem Glas von Frankreich und Belgien statt.

Die Rückausfuhr von Fensterglas und Glasperlen während desselben Jahres war beträchtlich, da sie respective 37,842 Centner und 2,057,000 Pfund betrug.

6. Nur ein kleiner Theil des Englischen Export-Glasgeschäfts, Flaschen ausgenommen, wird mit Europäischen Staaten betrieben; die grosse Masse der Ausfuhr geht nach den Vereinigten Staaten und den Englischen Colonien. Bei der Kostspieligkeit der zur sichern Versendung von Glaswaaren erforderlichen Packkasten und dem beim Auspacken durch Zerschneiden verursachten Verluste, welche zu den Fracht- und sonstigen Transportkosten hinzukommen, hat jede Vermehrung ihres Kaufpreises in Gestalt einer Einfuhrsteuer die Wirkung eines völligen Verbotes des Handels mit diesem Gegenstande, und da die gegenwärtig in Europa erhobenen Einfuhrsteuern im Allgemeinen bedeutend sind, findet die Abwesenheit des Handels mit diesem Welttheile eine einfache Erklärung, besonders in denjenigen Staaten, welche grosse Producenten sind, und wo billige Arbeit die einheimischen Fabricanten in den Stand setzt, die einheimischen Märkte mit billigen Waaren zu versorgen.

Ogleich auf diese Weise viele Märkte den Englischen Glasfabricanten verschlossen waren und noch sind, geht trotzdem aus den nachstehenden Zahlen hervor, dass das Englische Ausfuhrgeschäft während der letzten funfzehn Jahre bedeutende Fortschritte gemacht hat:—

Jahre	Flintglas	Fensterglas	Gewöhnliche Flaschen	Spiegelglas
	Quantität			
	Centner	Centner	Centner	} siehe Werth
1851	25,900	16,459	329,025	
1855	39,295	21,537	513,140	
1860	79,544	33,408	629,511	
1865	99,314	50,955	622,496	
	Werth			
	£	£	£	£
1851	110,666	22,223	174,318	20,743
1855	141,890	33,659	279,471	52,312
1860	222,380	44,063	324,189	62,566
1865	302,105	60,857	310,245	71,387

7. Die grösste Masse von Glas wird durch Handarbeit mit Hülfe mechanischer Vorkehrungen hergestellt; die Fabrication von gegossenem Glas wird jedoch hauptsächlich durch Maschinerie betrieben. Dampf wird auch für die Arbeit des Schneidens, Schleifens etc. in dem Flintglasgeschäft sehr allgemein angewandt.

8. Mr. Swinburne bemerkt mit Bezug auf

die Processe der Glasfabrication im Allgemeinen, 'dass sie unzweifelhaft ein grosses Feld für Verbesserungen darbieten. Dennoch ist im manchen Branchen des Geschäfts ein bedeutender Fortschritt gemacht worden, worunter besonders die Zunahme in der Grösse der Platten und Tafeln etc. zu erwähnen ist, sowie die Vervollkommnung des bunten und der Fabrication gegossenen Glases. Die Einfuhrung von Waaren dieser letzteren Klasse hat das Flintglas so viel billiger gemacht, dass beinahe der ärmste Theil des Volkes mit eleganten Gegenständen zum Hausbedarf, welche noch vor wenigen Jahren weit über ihre Mittel hinauslagen, versorgt werden kann.

Der Fortschritt im Glasgeschäfte ist, wie bereits bemerkt wurde, vorzugsweise der Aufhebung der Steuern zuzuschreiben, welche früher die Entwicklung desselben hemmten. Nach der Beseitigung dieser Steuer trat ein grosser Fall in dem Preise des Glases ein, und eine gewaltige Zunahme des Verbrauchs war die Folge. Die nachstehenden von Mr. H. Chance notirten Preise der Hauptglasarten vor der Aufhebung der Steuer und heut zu Tage liefern einen merkwürdigen Beweis für die Wohlthaten, welche man der Abschaffung der Steuer verdanken muss, und bezeugen den Fortschritt der Glasindustrie überhaupt. Ein Spiegel von Plattenglas 50 x 40 Zoll kostete im Jahre 1844 ungefähr 10*l.*, im Jahre 1865 weniger als die Hälfte dieser Summe. Gutes Kron- glas kostete im Jahre 1844 ungefähr 12*l.* per Korb, im Jahre 1865 2*l.* 8*s.*; gewöhnliche Glastafeln im Jahre 1844 1*s.* 2*d.* per Fuss, im Jahre 1865 2*d.* Hätten die Glassteuern im Jahre 1851 bestanden, so würde ein Crystallpalast beinahe eine Unmöglichkeit gewesen sein; andererseits hat die Abschaffung der Fenstertaxe einen vermehrten Verbrauch von Glas in allen Gattungen von Gebäuden veranlasst und den Comfort und die Gesundheit des Volkes wesentlich gesteigert.

Was die Anwendung der Kunst auf die Englische Glasfabrication betrifft, so erklärte die Jury der internationalen Ausstellung von 1862, dass der grösste Fortschritt im gravirtem Glase bemerkbar sei. Sie wies auch besonders auf den Fortschritt hin, welcher in der Form der am allgemeinsten gebrauchten Artikel stattgefunden, und schrieb denselben im hohen Masse dem im ganzen Lande durch die Zeichenschulen genährten Geschmacke zu, den Bemühungen vieler Fabricanten, seitens der Käufer einen besseren Formsinn zu befördern, und dem allgemeinen Fortschritt des Publicums in Kunstenkenntniss, woran sie den nationalen und internationalen Ausstellungen einen grossen Antheil zuerkannten, und zwar besonders den letzteren, in welchen die Aussteller durch den Wettstreit in den Künsten des Friedens sich gegenseitig belehren.

Klasse XVII.

PORCELLAN, STEINGUT UND ANDERE
KUNST-TÖPFERWAAREN.

1. Die Steingut-Fabrication, welche jetzt eine der Haupt-Industrien des Landes bildet, ist seit mehr als zwei Jahrhunderten in Staffordshire betrieben worden. England, ungleich den meisten festländischen Nationen, besitzt keine Staatsfabriken zur Production und Entwicklung der ceramischen Künste, das Geschäft ist mithin den Bemühungen von Privatunternehmern überlassen. Der Hauptmittelpunkt der Steingut-Fabrication ist in Staffordshire, mit Zweiggeschäften in Glasgow, Worcester, Newcastle und Lambeth. Beinahe sämtliche Arten Steingut werden in den Töpfereien von Staffordshire gemacht; Worcester producirt besonders eine feinere Klasse von Waaren, Newcastle Artikel zweiten Ranges und Lambeth besonders Steinzeug, wie Flaschen, Krüge, Pfannen, Röhren etc. Es besteht auch eine grosse Fabrication von gebrannten Thonwaaren im Königreiche, welche in beträchtlichen Quantitäten in Newcastle und Stourbridge verfertigt werden.

2. Die bei der Fabrication benutzten Rohmaterialien werden hauptsächlich im Inlande gewonnen, in den Grafschaften Dorset, Devon und Cornwall. Nach den officiellen Berichten belief sich die Production von Thon- und Porcellanerde im Jahre 1865 auf 374,358 Tonnen. 751,566 Tonnen von Brennthon wurden auch in den Grafschaften Stafford, York, Derby etc. gewonnen. Die in den Töpfereien von Staffordshire jährlich verbrauchte Masse von präparirtem Thon wird auf ungefähr 160,000 Tonnen angegeben.

Abgesehen von dem Thon, giebt Mr. Coghill den nachstehenden Bericht über die andern in dem District von Staffordshire gebrauchten Rohmaterialien: 'Der Jahresverbrauch von Kohlen in dem Geschäft kann auf 450,000 Tonnen veranschlagt werden. Zum Färben des Thons und zum Bedrucken der Waare werden ungefähr 67,000 Tonnen Kobalt-Oxyd gebraucht, zum Glasiren ungefähr 1,100 Tonnen Borax und Boraxsäure und zum Vergolden und Ausschmücken 12,000 Unzen Goldlerz. Die zu der Porcellanfabrication verbrauchte Masse von verkalkten Knochen, welche hauptsächlich von Südamerika geliefert werden, beläuft sich auf 4,500 Tonnen jährlich.'

3. Dem Census zufolge betrug die Zahl der während des Jahres 1861 im Vereinigten Königreich mit der Steingut- und Porcellan-Fabrication beschäftigten Personen:—

	Männer	Frauen	Summa
In England and Wales .	26,138	11,934	38,072
Schottland . . .	1,922	595	2,517
Irland . . .	101	7	108
Summa . . .	28,161	12,536	40,697

3,471 Männer und 1,115 Frauen waren während desselben Jahres mit der Fabrication von Tabakspfeifen beschäftigt.

Die Zahl der in den Töpfereien von Staffordshire beschäftigten Arbeiter wird von Mr. Coghill, im Jahre 1864, zu 27,878 angegeben, darunter 10,598 Frauen.

4. Die an Arbeiter in dem District von Staffordshire gezahlten Durchschnittslöhne betrugen im Jahre 1866:—

	Per Tag		
	s. d.	s. d.	
An Männer . . .	1 6	bis 7 0	
An Frauen . . .	1 6	„ 1 8	
	Per Woche		
	s. d.	s. d.	
In Worcester:			
An Männer . . .	16 0	bis 50	
An Frauen . . .	10 6	„ 14	
In Newcastle:			
An Männer . . .	10 0	„ 30	
An Frauen . . .	10 0		

5. Die Einfuhr von Steingut in das Vereinigte Königreich ist sehr gering und die von Porcellanwaaren nicht gross, da sie im Jahre 1865 nur 18,705 Centner betrug, welche auf 166,098l. geschätzt wurden. Der grössere Theil dieser Einfuhr kam von Frankreich.

6. Der Werth Englischen aus dem Vereinigten Königreich während der fünf Jahre 1861-65 ausgeführten Steinguts und Porcellans betrug:—

	£
1861 . . .	1,070,000
1862 . . .	1,220,000
1863 . . .	1,341,000
1864 . . .	1,422,000
1865 . . .	1,442,000

7. In einigen Branchen des Geschäfts wird Machinery angewandt, aber nicht so allgemein, als man wünschen möchte.

8. Der während der letzten Jahre in der Fabrication von Steingut und Porcellan gemachte Fortschritt war beträchtlich, und die jetzt für den Hausgebrauch fabricirten gewöhnlichen Artikel sind ihrer Billigkeit, eleganten Form und vortrefflichen Arbeit wegen berühmt. Auch der Anwendung unschädlicher statt giftiger Stoffe zum Glasiren der Waaren hat man grosse Aufmerksamkeit geschenkt, und sehr befriedigende Resultate sind erlangt worden.

Die Vervollkommnung in der Zeichnung und Ausführung der feinern Gegenstände, welche jetzt producirt werden, sind den gemeinsamen Bemühungen einiger der hervorragendsten Fabricanten und der Unterweisung zuzuschreiben, welche den Arbeitern in den Fabrikdistricten durch die Kunstschulen zu Theil geworden ist. Eine allgemeinere Einführung von Machinery würde der Entwicklung der Steingutindustrie in England grosse Dienste leisten. Der in den gebrannten Thonarbeiten (fire clay) des Steingutgeschäfts gemachte Fortschritt war auch sehr bedeutend; 89 Millionen Backsteine werden jetzt alljährlich in dem District von Newcastle

allein fabricirt, und ungefähr 30 Millionen in Stourbridge, ausser Retorten und Röhren etc., welche auch in grossen Quantitäten gemacht werden.

Klasse XVIII.

TEPPICHE, GEWIRKTE UND ANDERE MÖBELSTOFFE.

Die in dieser Klasse einbegriffenen Hauptgegenstände, von welchen eine ansehnliche Fabrication in dem Vereinigten Königreiche stattfindet, sind Teppiche, Möbelstoffe, Wachsleinwand, Gummi-Mattenwerk und Gewebe von Pferdehaar. Die angesehensten Teppiche Englischer Fabrication sind die Jacquard-, 'Brüsseler' und die 'Tapestry'- oder gedruckten Teppiche, von welchen jene vorzugsweise in Kidderminster und auch in Halifax und Durham, diese in Halifax, gemacht werden. Von den übrigen Teppicharten werden die 'Axminster' in Wilton gemacht, die 'Kidderminster' und 'Patent-Axminster' in Glasgow und andern Theilen Schottlands, die durchwirkten 'twills' in Durham, und die billigeren Arten von 'superfeinsten' Teppichen und Holländischen und Filzwaren in dem West-Riding von Yorkshire. Die Fabrication von Indischen Hanf-Teppichen in Dundee ist jetzt ein Geschäft von einiger Bedeutung. Baumwollene Möbelstoffe werden in Manchester, Woll- und Worsted-Damaste in Halifax verfertigt.

Wachsleinwand für Fussböden und Tischdecken etc. werden in dem Vereinigten Königreich nicht allein in grossem Umfang zu häuslichen Zwecken benutzt, sondern auch in grossen Quantitäten exportirt. Ein ansehnlicher Theil des Geschäfts wird in der Nähe von London betrieben; aber die Fabrication findet auch in andern Theilen des Königreichs statt.

Gewebe von Pferdehaar für Stuhl- und Sophaüberzüge werden in ziemlicher Menge fabricirt, obgleich dieser Artikel nicht mehr so allgemein für Möbel gebraucht wird als ehemals. Die Fabrication von Gummi-Mattenwerk etc. hat in den letzten Jahren bedeutend zugenommen.

2. Von den Quellen, welche das in der Teppich-Fabrication gebrauchte Rohmaterial liefern, wird in den Bemerkungen zu den Klassen 27, 28 und 30 die Rede sein. Pferdehaar wird in beträchtlichen Quantitäten importirt, besonders aus Russland und Amerika. Die Einfuhr dieses Artikels im Jahre 1865 betrug 21,078 Centner, mit einem Werthe von 106,938*l*. Die hauptsächlichsten Rohmaterialien, welche zu der Fabrication von Gummi-Mattenwerk etc. gebraucht werden, sind Caoutchouc und Gutta-Percha. Der erstere wird viel von Südamerika eingeführt und die letztere von Singapore und dem Ostasiatischen Archipelagus. Die Gesamtmasse und der

Gesamtwertb dieser während des Jahres 1865 in das Vereinigte Königreich importirten Gegenstände betrug:—

	Centner	£
Roher Caoutchouc .	71,392	530,538
Gutta-Percha .	29,077	160,565

Eine grosse Quantität von Caoutchouc wird rückexportirt, und der Rest, sowie die Gutta-Percha bilden nicht allein das Rohmaterial für das Mattengeschäft, sondern werden zu unendlich vielen andern Zwecken benutzt.

3. Mit Ausnahme der Teppich-Industrie können keine Berichte über die Zahl der Arbeiter, welche in den andern zu dieser Klasse gehörenden Branchen des Geschäfts arbeiteten, geliefert werden. Die Jury in Klasse 22 der Londoner Ausstellung des Jahres 1862 schätzte die Zahl der in dem Teppichgeschäft des Vereinigten Königreichs arbeitenden Personen auf ungefähr 40,000.

4. Die Durchschnittslöhne der Arbeiter wurden für das Jahr 1851 auf 16*s*. bis 28*s*. per Woche angegeben; aber diese stehen wahrscheinlich weit unter den jetzigen Preisen. Die Veranschlagung des Gesamtwertbs der jährlich in England fabricirten Teppiche wird eine Vorstellung von der Bedeutung des Geschäfts geben, als eines Mittels zur Beschäftigung der arbeitenden Klassen. Die folgenden Zahlen wurden von der Jury der Londoner Ausstellung von 1862 als eine Veranschlagung der Teppich-Fabrication jenes Jahres angenommen:—

	£
In Yorkshire	980,000
Kidderminster und Umgegend .	630,000
Durham, Kendal und Umgegend .	120,000
Somersetshire und Wiltshire .	40,000
Schottland	340,000
Summa	2,110,000

5. Die folgende Tabelle zeigt die Quantität und den Werth wollener Teppiche und Decken, welche während der fünf Jahre 1861–65 in das Vereinigte Königreich importirt wurden:—

	Quadratellen	£
1861 .	61,869	27,538
1862 .	111,896	33,165
1863 .	83,696	30,743
1864 .	78,311	32,392
1865 .	98,936	39,247

6. Die Ausfuhr Englischer Teppiche und Kammwollstoffe oder Drogets ist sehr bedeutend, und während der vier Jahre 1862–65 betragen die Quantitäten und Werthe:—

Jahre	Quantitäten		
	Teppiche	Teppichdecken	Drogets oder Filzteppiche
	Ellen	No.	Ellen
1862	4,799,000	36,640	579,000
1863	5,582,000	45,907	676,000
1864	5,620,000	40,257	372,000
1865	5,284,000	60,991	459,000

Jahre	Werth		
	Teppiche	Teppich- decken	Drogets oder Filzteppiche
	£	£	£
1862	620,700	14,737	50,515
1863	747,521	17,578	63,262
1864	825,098	14,782	36,400
1865	818,847	17,904	42,600

Die Vereinigten Staaten sind die Hauptconsumenten Englischer Teppiche. Im Jahre 1865 wurden dorthin 2,164,000 Ellen versandt.

Die Ausfuhr Englischer Wachseleinwand für Tische und Wachseleinwand für Fussböden betrug im Jahre 1865:—

	Quadratellen	£
Wachseleinwand, gefirniss etc.	2,094,000	138,459
Fussboden-Wachseleinwand, mit Einschuss von Gummi - Fussbodenleinwand		
	320,000	40,448

7. Die Fabrication von Teppichen wird jetzt hauptsächlich durch Maschinerie betrieben und das Jacquard-Handstuhlweben ist beinahe völlig durch Dampfkraftweben verdrängt.

8. Dass die Teppich-Industrie des Vereinigten Königreichs seit dem Jahre 1851 grosse Fortschritte gemacht hat, wurde klar bewiesen durch die Ueberlegenheit des Geschmacks, der Farbe und der Zeichnung in den 1862 ausgestellten Proben, im Vergleich mit denjenigen, welche die frühere Londoner Ausstellung aufzuweisen hatte, während die erweiterte Anwendung von Dampfkraft auch wesentlich dazu beigetragen hat, die Fabrication dieser Klasse von Waaren zu vermehren. Die rasche Entwicklung der Wirktapeten- ('tapestry carpets') Fabrication der Messrs. Crossley, in Halifax, ist vielleicht einer der grössten Fortschritte des neuesten Englischen Teppichgeschäfts. Durham, Glasgow, Halifax und Kidderminster besitzen alle Kunstschulen, und es kann nicht bezweifelt werden, dass der Unterricht, welcher den arbeitenden Klassen in diesen Schulen ertheilt wird, eine höchst wohlthätige Wirkung auf die Fabrication der respectiven Districte ausüben muss.

Eine bedeutende Verbesserung in den Mustern zu Fussboden-Wachseleinwand hat ebenfalls seit dem Jahre 1855 stattgefunden.

Klasse XIX.

TAPETEN.

Die Fabrication von Tapeten besteht seit mehr als einem Jahrhundert in dem Vereinigten Königreich und wird in der Umgegend von London, in Manchester, Edinburg und andern Theilen des Landes betrieben. Diejenige Art von Tapeten, in welcher die Englischen Fabricanten sich am meisten auszeichnen, ist

die durch Maschinerie verfertigte, deren Preis so niedrig ist, dass die ärmsten Volksklassen ihn erschwingen und so den Wänden ihrer Wohnungen ein freundliches Aussehen ertheilen können.

2. Grosse Quantitäten von Papier, Farben, Wolle und Metall werden alljährlich durch die Tapetenfabrication consumirt, aber Berichte über den wirklichen Betrag dieser Quantitäten fehlen.

3. Nach dem Census von 1861 betrug die Zahl der Arbeiter, welche in den verschiedenen Theilen des Königreichs in dem Tapetengeschäft arbeiteten:—

	Männer	Frauen	Summa
In England and Wales	1,556	399	1,955
Schottland	77	38	115
Irland	96	9	105
Summa	1,729	446	2,175

4. Allgemeine Berichte über die in dem Tapetengeschäft gezahlten Arbeitslöhne sind nicht vorhanden. Ein Bericht der Edinburger Handelskammer an das Handelsministerium giebt die Arbeitslöhne, welche im Jahre 1866 in jener Gegend gezahlt wurden, wie folgt:—

	Per Woche von 57 Stunden	s.	s.
An Farbenmischer	12	
An Glasirer etc.	15	
An Blockdrucker u. Marmorirer 20 bis 40			

5. Die Masse und der Werth der während der fünf Jahre 1861–65 in das Vereinigte Königreich importirten Tapeten betragen:—

Jahre	Tapeten	
	Quantitäten	Werth
	Centner	£
1861	2,975	15,395
1862	4,210	17,680
1863	5,177	21,740
1864	5,979	25,110
1865	5,684	23,873

Der grössere Theil der in England eingeführten Tapeten kommt aus Frankreich.

6. Die Masse und der Werth Englischer Tapeten, welche während desselben Zeitraums exportirt wurden, betragen:—

Jahre	Englische Tapeten	
	Quantitäten	Werth
	Centner	£
1861	13,415	105,984
1862	19,874	64,505
1863	25,874	84,403
1864	25,163	82,819
1865	32,893	109,320

7. Die Hauptmasse der billigeren Arten von Tapeten wird durch Maschinerie fabricirt, welche während der letzten Jahre ausserordentlich verbessert worden ist. Die angewandten Maschinen können jede täglich von 1,000 bis 1,500 Stück drucken.

8. Bis zum Jahre 1846 hatte die auf fremde Tapeten erhobene Einfuhrsteuer die Wirkung, dieselben beinahe völlig vom Englischen Markte auszuschliessen, und die Abwesenheit der Concurrenz zog nur zu sicher eine Abwesenheit des Fortschritts seitens der Englischen Fabricanten nach sich. Seit jedoch der auswärtige Concurrent unter gleichen Bedingungen auf dem Englischen Markt zugelassen wurde, hat man, was Geschmack und Arbeit betrifft, an den Englischen Tapeten grosse Fortschritt wahrgenommen, während andererseits eine verbesserte Anwendung der beim Verfertigen benutzten Maschinerie die Hervorbringung schöner Tapeten zu sehr billigen Preisen veranlasst hat.

Klasse XX.

MESSERSCHMIEDEWAAREN.

1. England geniesst schon seit langer Zeit einen hohen Ruf wegen seiner verschiedenen Messerschmiedewaaren, deren Fabrication besonders in Sheffield betrieben wird. In geringem Umfange werden Messerschmiedewaaren auch in London und andern Theilen des Königreichs verfertigt.

2. Der zu der Fabrication benutzte Stahl wird in Sheffield hergestellt, hauptsächlich aus fremdem Eisen. Im Jahre 1862 betrug die Zahl der mit dieser Umwandlung beschäftigten Oefen in Sheffield 205, welche alljährlich ungefähr 78,000 Tonnen Blasenstahl lieferten. Die Zahl der Schmelzöfen, welche jährlich ungefähr 51,000 Tonnen Gussstahl lieferten, betrug 2,437. Nur ein Theil dieser Masse wird in dem Messerschmiedegeschäft benutzt.

3. Die Jury über Messerschmiedewaaren in der Londoner Ausstellung von 1862 erklärte, dass die Zunahme der Arbeiterzahl in den Tischmesser-, Rasir-, Feder- und Taschenmesser- und Scheren-Branchen des Sheffielder Geschäfts, zwischen jenem Zeitpunkt und der vorhergehenden Ausstellung von 1851, nicht so beträchtlich gewesen sei als früher; dass aber wegen der ausgedehnteren Anwendung von Maschinerie eine grössere Menge von Tischmessern fabricirt worden sei als in früheren Jahren. Die Zahl der Personen, welche, während des Jahres 1864, innerhalb des Stadtgebiets von Sheffield, in den Hauptbranchen des Messerschmiedegeschäfts arbeiteten, betrug:—

Geschäftszweige	Männer	Frauen	Summa
Scherenmacher	1,089	331	1,420
Feilenmacher	4,345	589	4,934
Sägensmiede	1,232	—	1,232
Messerschmiede	3,294	184	3,478
Klingenschmiede	1,797	—	1,797
Tischmesser-smiede	4,944	—	4,944
Rasirmesser-smiede	817	—	817
Summa.	17,518	1,104	18,622

4. Die während des Jahres 1866 in den Hauptbranchen des Geschäfts in Sheffield gezahlten durchschnittlichen Wochenlöhne waren:—

Tischmesserfabrication			
Beschäftigungen		Löhne	Arbeitsstunden
		s.	
Schmiede	. . . . .	28	60
Zuschläger	. . . . .	24	60
Hefter	. . . . .	21	60
Schleifer	. . . . .	30	60
Federmesserfabrication			
Beschäftigungen		Löhne	Arbeitsstunden
Beste Arbeit		s.	
Schleifer	. . . . .	30	60
Schmiede	. . . . .	30	60
Messerschmiede	. . . . .	25	60
Schalen- und Springfeder-Macher	. . . . .	25	60
Scherenfabrication			
Beschäftigungen		Löhne	Arbeitsstunden
		s. s.	
Schmiede	. . . . .	20 bis 30	60
Feiler	. . . . .	20 „ 30	60
Schleifer	. . . . .	27 „ 35	54
Polirer	. . . . .	22 „ 32	54

5. Der Werth der während der vier Jahre 1862–65 aus dem Vereinigten Königreich exportirten Englischen Messerschmiedewaaren war:—

	£
1862	291,244
1863	304,119
1864	386,859
1865	402,294

6. Maschinerie wird in einigen Branchen des Messerschmiedegeschäfts angewandt, aber viele der wichtigsten Operationen werden durch Handarbeit ausgeführt.

7. Obgleich in neuerer Zeit keine bemerkenswerthen Verbesserungen in dem Messerschmiedegeschäft stattgefunden haben, bewahren die Erzeugnisse von Sheffield dennoch ihren Ruf für Vortrefflichkeit der Qualität und Arbeit, und Schönheit der Zeichnung und Ausführung. Es besteht seit dem Jahre 1843 eine Kunstschule in Sheffield, und die Zahl der Schüler, welche darin Unterricht erhielten, betrug im Jahre 1865 1,763.

Klasse XXI.

GOLD- UND SILBERGESCHIRR.

Die Verfertigung von Gegenständen aus kostbaren Metallen wird in den Hauptstädten des Königreichs betrieben, und die grossen Geschäftshäuser Londons liefern alljährlich

lich grosse Quantitäten von Silbergeschirr. Der während der letzten Jahre so beträchtlich erweiterte Gebrauch von plattirten Waaren hat eine Beschränkung der Operationen des Geschäfts mit kostbaren Metallen veranlasst; trotzdem aber wird der Werth des in England jährlich fabricirten und gebrauchten Gold- und Silbergeschirrs auf mehr als eine Million Pfund Sterling geschätzt. Es besteht auch ein Ausfuhrgeschäft in diesen Gegenständen, dessen Werth im Jahre 1865 62,532*l.* betrug.

Statistische Angaben über die Gesamtzahl der Arbeiter, welche mit der Verfertigung der gegenwärtig zu dieser Klasse gerechneten Gegenstände beschäftigt sind, sind nicht vorhanden. Die Zahl der Goldschmiede und Juweliere in London ist 159 und die der Cissellirer 41.

In der Anwendung der Kunst auf die Verarbeitung von Gegenständen aus kostbaren Metallen ist während der letzten zehn Jahre ein bedeutender Fortschritt gemacht worden; aber in Bezug auf Umrisse und Ornamentirung bedürfen die Englischen Zeichner von Gold- und Silbergeschirr noch gar sehr der weitern Ausbildung eines reinen Styls.

Klasse XXII.

BRONZEN UND ANDERE ARTEN VON GUSS-ARBEIT UND REPOUSSÉ-ARBEIT.

Die Fabrication von Bronzen ist in dem Vereinigten Königreich von sehr geringem Umfang. Die Seltenheit guter Englischer Cissellirer ist der in den Zeichenschulen befolgten Methode zugeschrieben worden, welche mehr die Ausbildung von Künstlern und Bildhauern als von guten Metallarbeitern befördert.

Frankreich liefert den grössten Theil der nach England eingeführten Bronzen, und während des Jahres 1865 kam aus einer Gesamteinfuhr von 61,307*l.* 55,168*l.* Werth von dort.

Klasse XXIII.

UHREN.

Die Uhrenfabrication wird besonders in London, Coventry, Liverpool und Manchester betrieben. Die Uhren, für welche die Englischen Fabricanten besonders berühmt sind, sind Chronometer und andere höhere Arten von Uhren, obgleich auch grosse Massen von billigen Uhren in England gemacht werden. Die besten Uhrwerke werden in Lancashire gemacht, und eine beträchtliche Ausfuhr von Uhrwerken findet alljährlich nach den Vereinigten Staaten statt, wo sie mit Gehäusen versehen und vollendet werden. Nach dem Census von 1861 war die folgende Anzahl von Personen in den ver-

schiedenen Theilen des Landes mit der Uhrenindustrie beschäftigt:—

	Männer	Frauen	Summa
In England und Wales . .	20,221	536	20,787
Schottland	1,699	8	1,707
Irland	951	8	963
Summa	22,871	556	56,427

Die Zahl der Personen, welche (mit Ausschluss von Gehülfen) gegenwärtig in den verschiedenen Branchen des Geschäfts in London arbeiten, beträgt:—

Uhrmacher	412
Uhrgehäusemacher	55
Uhrjuweliere	31
Uhrmacher (Theile)	277
Wanduhrmacher	162
Wanduhrgehäusemacher . . .	14

Der Werth von importirten Uhren ist während der letzten fünf Jahre beinahe unverändert geblieben; im Jahre 1865 wurden 216,677*l.* Werth Stutz- und Wanduhren und 257,076*l.* Werth Taschenuhren in das Vereinigte Königreich eingeführt. Der Werth der während desselben Jahres ausgeführten Englischen Waaren betrug: Stutz- und Wanduhren 24,695*l.* und Taschenuhren 69,179*l.*

Klasse XXIV.

APPARATE UND VORKEHRUNGEN FÜR HEIZUNG UND ERLEUCHTUNG.

Die Fabrication der besten Arten von Eisen- und Stahl-Kamingittern, Feuerschirmen und Schüreisen wird in Sheffield betrieben, wo dieser Industriezweig seit 60 bis 70 Jahren bestanden hat; vor diesem Zeitpunkt wurden die besten Kamingitter in London und Edinburgh gemacht. Die gewöhnlicheren Arten von Wärmöfen werden hauptsächlich in der Carron und andern Fabriken in Schottland verfertigt; in den Coalbrookdale-Fabriken und in den Schmelzhütten in London, Northampton, Dudley, Rotherham, Birmingham, Mansfield, Nottingham und Derby. Die Kunst des Stahlschmiedens, Schleifens und Polirens beschränkt sich beinahe auf Sheffield und dessen Umgegend. Districte, wo Eisen geschmolzen wird, bieten dem Eisengiesser den grossen Vortheil billigen Eisens und billiger Steinkohlen, und in diesen wird die grosse Masse des Wärmofengeschäfts betrieben. Man kann kaum zugeben, dass der Apparat zum Heizen mittelst der Circulation heisser Luft und der Ventilations-Apparat schon zu einem hohen Grade von Vollkommenheit gebracht worden sind; der Mangel an Erfolg ist vielleicht in gewissem Masse der Constructionsort der Gebäude zuzuschreiben, in welchen man solche Apparate anwandte.

Was das Lampengeschäft betrifft, so hat der

vermehrte Gebrauch von Gas während der letzten Jahre den Gebrauch von Oel zu Zwecken der Erleuchtung in grosser Masse beseitigt, und ein bedeutender Theil der Fabrication der älteren Art von Lampen ist jetzt durch die Fabrication von Gasapparaten verdrängt worden. Obgleich der Gebrauch von Fischöl und vegetabilischem Oel abgenommen hat, so hat der des kürzlich entdeckten Paraffinöls ausserordentlich zugenommen und die Fabrication einer neuen Art von Lampen in's Leben gerufen, welche in grosser Menge, zu Preisen von 4d. bis 50s. per Stück, in Birmingham gemacht werden. Die rasche Entwicklung der Dampfverbindung zu Land und zu Wasser hat auch eine grosse Nachfrage nach Signal- und andern Lampen veranlasst und den Fabricanten, welche früher das Oellampengeschäft betrieben, Beschäftigung gegeben.

Klasse XXV.

PARFÜMERIEN.

Der Hauptmittelpunkt des Parfümeriegeschäfts ist in London, obgleich die Fabrication wohlriechender Essenzen, Pomaden, Schönheitsmittel etc. in geringerem Umfange in den meisten grossen Städten von England betrieben wird. Wenige der zur Fabrication von Parfümerien gebrauchten Rohmaterialien werden in England gewonnen; meistens werden sie aus den Südstaaten Europas und aus Asien eingeführt. Die Fabrication von Toilettenseife im Vereinigten Königreich ist sehr beträchtlich. Die berühmteste ist vielleicht die unter dem Namen der 'Windsor-Seife' bekannte, welche nicht allein viel im Inland gebraucht, sondern auch nach allen Welttheilen exportirt wird. Englisch Lavenderwasser hat ebenfalls viele Jahre hindurch eines grossen Rufes genossen.

Es fehlt an statistischen Berichten über die Gesamtzahl der Personen, welche in der Parfümerie- und Seifen-Fabrication beschäftigt sind. Bei der umfassenden Ausdehnung dieser Geschäfte haben sie jedoch vielen Händen Beschäftigung gegeben, und die Einführung weiblicher Arbeit in die feineren Branchen hat der Beschäftigung dieses Volkstheils einen neuen Spielraum eröffnet. Die Zahl der Personen, welche (mit Ausschluss der Arbeiter) gegenwärtig in London das Parfümeriegeschäft betreiben, beläuft sich auf:—

Parfümeure, en gros	151
„ en detail	849
Fabricanten von Stoffen zum	} 16
Haarfärben	

Der im Jahre 1865 exportirte Werth Engländer Parfümerien (mit Ausschluss von Toilettenseife) betrug 94,351l. Die Ausfuhr von Toilettenseife in demselben Jahre erreichte 7,628 Centner, zu einem Werthe von 32,361l.

Während der letzten zehn Jahre ist in den verschiedenen Branchen des Parfümeriegeschäfts ein grosser Fortschritt gemacht worden; auch hat die Abschaffung der Accisesteuer auf Seife, im Jahre 1853, eine höchst wohlthätige Wirkung auf die Fabrication dieses so bedeutenden und allgemein unentbehrlichen Gegenstandes ausgeübt.

Klasse XXVI.

LEDERARBEIT, MODE- UND KORBWAAREN.

Es fehlt an Mitteln, den Betrag der Fabrication der verschiedenen, zu dieser Klasse gehörenden, Gegenstände zu bestimmen. Vielleicht die wichtigste Industrie innerhalb ihrer Grenzen ist die der Bürstenmacherei. Bei dem allgemeinen Gebrauch von Bürsten für Haus- und Geschäftszwecke, ist die Fabrication nothwendigerweise sehr gross, obgleich keine Berichte über ihren Umfang existiren. Nach dem Census von 1861 befand sich die folgende Zahl von Bürsten- und Besenmachern in den verschiedenen Theilen des Königreichs:—

In England und Wales	11,178
Schottland	535
Irland	617
	12,330

Die Einfuhr von Bürsten und Besen ist von geringem Werth, und die Ausfuhr Engländer Bürsten und Besen im Jahre 1865 belief sich auf nur 52,000l., wovon der grösste Theil nach Australien geschickt wurde. Andererseits findet eine grosse jährliche Einfuhr von Schweineborsten statt; im Jahre 1865 wurden 2,566,000 Pfund eingeführt, hauptsächlich von Russland. Grosse Quantitäten von Bürsten werden auch von Cocosnussfasern gemacht.

Das Korbgeschäft des Vereinigten Königreichs ist auf die Fabrication von gröberen Gegenständen, wie Tragkörben und Packkörben, beschränkt, obgleich auch verschiedene Modegegenstände für den Hausgebrauch gemacht werden.

Englische Toilettentischkasten geniessen eines hohen Rufes wegen der Vortrefflichkeit ihrer Arbeit und der Vollständigkeit ihrer Ausstattung; sie können zu allen Preisen gekauft werden, von wenigen Schillingen bis zu tausend Guineen das Stück. Grosse Fortschritte sind seit 1851 in der Fabrication dieser Artikel gemacht worden.

GRUPPE IV.

(KLASSEN XXVII. bis XXXIX.)

KLEIDUNGSSTOFFE (FABRICATE EINBEGRIFFEN) UND ANDERE AM KÖRPER GETRAGENE GEGENSTÄNDE.

Klasse XXVII.

BAUMWOLLEN-GARN UND ZEUGE.

Die Baumwollen-Fabrication bildet noch immer den Hauptzweig der einheimischen Industrie des Vereinigten Königreichs, trotz der schweren Crise, welche der Englische Baumwollenhandel, so wie der von ganz Europa, kürzlich bestanden hat.

1. Die Hauptsitze dieser Industrie sind Lancashire, in England, und Lanarkshire, in Schottland. Die Grafschaften York, Chester, Derby und Nottingham enthalten auch eine grosse Anzahl von Baumwollenfabriken.

Nach dem letzten Bericht (1861) belief sich die Gesamtzahl der Baumwollenfabriken in dem Vereinigten Königreich auf 2,887, wovon 2,715 auf England und Wales, 163 auf Schottland und 9 auf Irland kamen. Eine kurze Tabelle wird vielleicht eine bessere Vorstellung geben von dem Umfange dieser Industrie in den drei Provinzen des Königreichs:—

Abtheilungen und Grafschaften	Zahl von Fabriken	Zahl von Spindeln	Zahl von Webmaschinen
England und Wales:			
Lancashire . . .	1,979	21,530,532	306,423
Yorkshire . . .	369	2,414,898	17,393
Cheshire . . .	212	3,373,113	32,926
Derby . . .	79	682,008	7,581
Nottingham . .	26	36,000	—
Andere Graf-schaften . }	50	315,574	3,802
Summa . . .	2,715	28,352,125	368,125
Schottland:			
Lanarkshire . .	96	1,138,602	24,149
Renfrew . . .	44	408,742	2,968
Andere Graf-schaften . }	23	368,054	2,993
Summa . . .	163	1,915,398	30,110
Irland . . .	9	119,944	1,757
Vereinigtes Königreich . }	2,887	30,387,467	339,922

Die obigen Zahlen können als eine richtige Darstellung der Baumwollen-Industrie in einer Zeit gewöhnlicher Thätigkeit angenommen werden. Eine grosse Menge neuer Maschinerie

ist seit 1861 hinzugefügt worden; aber mehrere Fabriken sind noch ausser Arbeit.

In den Districten von Lancashire und Cheshire, als deren Mittelpunkt Manchester betrachtet werden kann, werden alle Arten von Garn und leichten und schweren Zeugen, Kattun, Sammet etc., producirt, während in Glasgow, welches der Mittelpunkt der Schottischen Baumwollenindustrie ist, hauptsächlich die leichteren Arten von Zeugen, wie Batist, Jaconet etc., gemacht werden.

Was die gemischten Zeuge angeht, welche zu dieser Klasse gehören, so ist es kaum möglich, die beinahe zahllosen Artikel zu nennen, wovon Baumwolle einen Theil ausmacht. Die wichtigsten jedoch werden in Bradford und andern Theilen von Yorkshire fabricirt, nämlich die aus Baumwolle und Wolle gemachten Stoffe, welche ganz den Anschein reiner Wollenstoffe haben, obschon sie natürlich viel billiger sind. Eine fernere Bemerkung über diese Waaren wird in Klasse 39 beigefügt werden.

2. Vor dem Bürgerkriege in den Vereinigten Staaten bezog England den grössten Theil des zu der Baumwollenfabrication benutzten Rohmaterials aus Nordamerika. Die gesammte Durchschnittseinfuhr roher Baumwolle belief sich während der fünf Jahre 1856–1860 auf 1,129 Millionen Pfund jährlich, wovon 869 Millionen Pfund jährlich aus den Vereinigten Staaten bezogen wurden.

Während desselben Zeitraums wurden 171 Millionen Pfund jährlich exportirt, was 958 Millionen Pfund für den jährlichen Durchschnittsverbrauch übrig liess.

Bei dem Ausbruch des Amerikanischen Krieges that die Handelskammer von Manchester energische Schritte, um den Anbau von Baumwolle in verschiedenen Welttheilen zu befördern, und viele Länder, vor allem das Englische Indien, Egypten, Brasilien und andere Südamerikanische Staaten, ja sogar China und Japan, gaben ihrer Baumwollencultur eine beträchtliche Ausdehnung und trugen während der Jahre 1861–1865 zur Versorgung der Englischen Märkte bei. Während des letzteren Jahres nahm jedoch die Zufuhr aus einigen dieser Länder ab, und man darf kaum bezweifeln, dass sie nicht im Stande sind, in Zeiten des

Friedens und der Ruhe den Amerikanischen Producenten Concurrenz zu machen.

Die drei Länder, welche während des Amerikanischen Krieges die grösste Baumwollenzufuhr lieferten, waren das Englische Indien, Egypten und Brasilien. Die Einfuhr roher Baumwolle im Jahre 1865 betrug:—

Aus dem Englischen Indien	Pfund 446,000,000
„ den Vereinigten Staaten, mit Einschluss der Bahama- inseln und Mexicos	190,000,000
„ Egypten	177,000,000
„ Brasilien	55,000,000
„ China	36,000,000
„ den Mittelmeerstaaten (mit Ausschluss Egyptens)	27,000,000
„ andern Ländern	47,000,000
Summa	978,000,000

Von dieser Quantität wurden 303 Millionen Pfund rückexportirt, wonach 675 Millionen Pfund zur Consumption übrig blieben.

Die Einfuhr roher Baumwolle während der ersten elf Monate des Jahres 1866 belief sich auf 1,260 Millionen Pfund, oder 482 Millionen Pfund mehr als die entsprechende Einfuhr des vorhergehenden Jahres. Aus diesem Gesamtbetrage wurden 474 Millionen Pfund durch die Vereinigten Staaten geliefert und 586 Millionen Pfund durch das Englische Indien. 361 Millionen Pfund wurden während der elf Monate rückexportirt, was 899 Millionen Pfund zur Consumption übrig liess.

Die Preise der Baumwolle seit dem Jahre 1860 bis zur Gegenwart waren wie folgt:—

Im December	Gute Amerikanische per Pfund
1860	d. 7 $\frac{1}{4}$
1861	11
1862	23 $\frac{5}{8}$
1863	27 $\frac{1}{2}$
1864	27 $\frac{1}{2}$
1865	22

Im Juli und August 1864 erreichten die Preise die Höhe von 31 $\frac{1}{2}$ d. per Pfund. Auch Indische Baumwolle brachte hohe Preise von 1862 bis 1865. Die gegenwärtigen Preise (December 1866) sind 16d. für gute Amerikanische und 12 $\frac{3}{4}$ d. für gute Dhollehah (Indische).

Man darf nicht vergessen, dass während der Crise der Preis der Baumwollenfabricate nicht in demselben Verhältniss stieg, wie der Preis des Rohmaterials, weil die Kosten der Fabrication seit mehreren Jahren dieselben geblieben waren oder vielmehr, in Folge der angewandten bessern Maschinerie, ein wenig abgenommen hatten; und um den Preis der Fabricate noch mehr niederzuhalten, wurden sie an Qualität leichter gemacht und enthielten demnach weniger von dem theuern Rohmaterial. Die Abnahme der Baumwollenpreise und die Rückkehr einer regelmässigen Nachfrage nach Fabricaten hat jetzt glücklicherweise die Fabricanten in den Stand gesetzt, zu ihren früheren Qualitäten

zurückzukehren und den Credit ihrer Fabricate wieder herzustellen.

3. Von 451,000 Personen, die während des Jahres 1861 in den Baumwollenfabriken des Vereinigten Königreichs beschäftigt waren, kamen 315,000, oder 70 Procent, auf den District von Lancashire. Die nachstehende Tabelle zeigt das Geschlecht und Alter der Gesamtzahl der Arbeiter:—

	In Eng- land und Wales	In Schott- land	In Irland	In dem Vereinigten Königreich
Männliche:	Zahl	Zahl	Zahl	Zahl
Unter 13	21,774	307	—	22,081
13 bis 18	38,210	2,661	336	41,207
Ueber 18	113,720	5,060	488	119,268
Summa	173,704	8,028	824	182,556
Weibliche:				
Unter 13	17,382	325	—	17,707
Ueber 13	216,512	32,884	1,910	251,306
Summa	233,894	33,209	1,910	269,013
Summa	407,598	41,237	2,734	451,569

Die Geschichte der Baumwollentheuerung und ihres Einflusses auf die Baumwollensarbeiter braucht hier nicht wiederholt zu werden. Das Resultat jenes Ereignisses war, mehrere Jahre lang alle diejenigen, welche Beschäftigung finden konnten, zu veranlassen, sie in anderen Branchen der Industrie zu suchen, und bei der Wiedereröffnung der Baumwollenfabriken fand man es daher einigermassen schwer, gute Arbeiter aufzutreiben. Wenn man nach dem gegenwärtigen Betrage der Production und der wahrscheinlich anhaltenden Nachfrage im In- und Auslande urtheilt, so scheint die Annahme gerechtfertigt, dass die Baumwollenfabrication jetzt wieder eben so vielen Personen ihren Lebensunterhalt verschafft als im Jahre 1861. Guten Autoritäten zufolge ist die gegenwärtig (December) verbrauchte Quantität Baumwolle der Consumption von 1860 beinahe gleich.

4. Die Durchschnittslöhne in den Hauptdistricten der Baumwollendindustrie in Lancashire betrugen im Jahre 1860:—

	Per Woche von 60 Stunden	
Spinnen:	s. s. d.	
Spinner an selbstspinnenden Mulemaschinen	20 bis 22 0	
Weben:		
Maschinenweber (besonders Frauen) an zwei Maschinen	10 „ 10 9	
„ drei „	15 „ 16 0	
„ vier „	16 „ 20 0	

Die gegenwärtigen Arbeitslöhne stehen, wegen des Mangels an Arbeitern, ungefähr 10 Procent über denjenigen, welche im Jahre 1860 gezahlt wurden.

Wenn man die schwere Prüfung in Anschlag bringt, welche die Fabrikbevölkerung in den Baumwollendistricten vor kurzem bestanden hat, so ist die allgemeine Lage der Arbeiter

sehr zufriedenstellend. Es fehlt nicht an Beschäftigung mit gutem Lohn, und da viele Mitglieder derselben Familie Arbeit in den Fabriken finden, genügt die Gesamtsumme ihrer Verdienste, sie in bequemen Umständen zu erhalten.

Mr. H. Ashworth bemerkte in einem vor der 'Social Science Association' in Manchester gehaltenen Vortrage (October 1866), 'dass die Zunahme der Werktag-, Sonntag- und Fabrik-schulen während der letzten Jahre höchlich zu der Vermehrung der Intelligenz, der Verbesserung des Characters und der Sitten der arbeitenden Klassen beigetragen habe.

'Es existirt eine grosse Anzahl von Handwerker-Instituten, Arbeiter-Clubs und Bildungs-Anstalten, freien Bibliotheken und ähnlichen Instituten, welche die Mittel geistiger Cultur darbieten und von der Arbeiterklasse viel benutzt und hoch geschätzt werden. Ausserdem hat eine billige freie Presse dem Englischen Arbeiter ein Erziehungsmittel gegeben, dessen sich bis jetzt kaum ein anderes Land der Welt erfreut.

'Mässigkeit und Klugheit zeigen sich in dem Verlangen vieler, den Besitz von Hülfquellen zu erreichen, welche sie vor wirklichem Mangel schützen oder zum Wohlstand führen würden.' 'Die Einrichtung von co-operativen Gesellschaften und Fabrications- und Handels-Compagnien unter den Arbeitern, welche aus ihren eigenen Reservefonds geschaffen und ausschliesslich durch die tüchtigsten und ehrbarsten ihrer Mitglieder geleitet werden, ist ein Zeichen ihrer weisen Vorsicht und öconomischen Gewohnheiten.' Am 31. December 1865 waren in Lancashire allein 139 dieser Gesellschaften in Thätigkeit.

5. Der Werth der in das Vereinigte Königreich eingeführten Baumwollenfabricate ist gering im Vergleich mit dem der Ausfuhr, denn er beträgt nicht ganz eine Million Pfund Sterling jährlich. Die importirten Waaren bestehen hauptsächlich aus Französischen Mousselines, Indischen und anderen Zeugen (von welchen ein grosser Theil rückexportirt wird) und Strumpfwirkereiwaaen, besonders aus Deutschland.

6. Baumwollengarn und Zeuge bilden dagegen die grösste Klasse von Waaren, welche aus dem Vereinigten Königreich exportirt werden, wie die nachstehende Tabelle zeigt:—

Jahre	In Millionen von £ Sterling					Werth der gesammten Ausfuhr
	Garn	Zeuge		Andere Arten	Gesamm- masse von Garn und Fabri- caten	
		Weisse oder schlichte	Gedruckte gestreifte oder gefärbte			
1860	10	23	17	2	52	136
1861	9	22	14	1	46	125
1862	6	16	12	2	36	124
1863	8	23	14	2	47	146
1864	9	27	17	2	55	160
1865	10	28	17	2	57	166

Die folgende Tabelle der Quantitäten und des Werthes der Zeuge und des Garns, welche

in den Jahren 1860 und 1865 exportirt wurden, wird eine allgemeine Ansicht von dem vermehrten Werthe der Baumwollenfabricate geben:—

Baumwollengarn :	Quantitäten		Werth
	Pfund	£	
1860 .	197,343,000	9,870,000	
1865 .	103,533,000	10,343,000	
Nähgarn :			
1860 .	6,297,000	741,000	
1865 .	4,626,000	753,000	
Allerlei Zeuge :			
	Yard		
1860 .	2,776,000,000	40,346,000	
1865 .	2,015,000,000	44,860,000	

7. Die Baumwollenfabrication wird beinahe ausschliesslich durch Maschinerie betrieben. Die bewegende Kraft betrug im Jahre 1861 281,663 Dampf-Pferdekraft und 12,467 Wasser-Pferdekraft. Eine grosse Vermehrung der Maschinerie hat jedoch seit dem Jahre 1861 stattgefunden.

8. Die hohe Ausbildung, welche die Baumwollenfabrication seit einer Reihe von Jahren in dem Vereinigten Königreich erreicht hat, macht es schwierig, die zahlreichen Verbesserungen anzuführen, welche in der Maschinerie und dem bei der Baumwollenfabrication angewandten Verfahren stattgefunden haben. Die gemachten Fortschritte bestehen mehr in der Vereinfachung und Vervollkommnung der vorhandenen Maschinerie, als in der Einführung neuer Fabrications-Methoden.

Die Jury, welche über die Maschinerie in der Londoner Ausstellung von 1862 Bericht zu erstatten hatte, erklärte, 'dass die Englische Maschinerie zum Baumwollenspinnen nicht zu höchlich gerühmt werden könne, sowohl was allgemeine Construction der Maschinen, geschickte Anordnung, Anpassung der verschiedenen Theile an einander und die durch neue Verbesserungen erlangte Vollkommenheit an betrifft, als auch wegen der Vortreflichkeit und tadellosen Vollendung der Arbeit.

'Durch die eingeführten Verbesserungen hatten die Aussteller sich bemüht, ihre Maschinen in deren verschiedenen complicirten Bewegungen so sicher, so automatisch und vollkommen zu machen als möglich. Diese Bemühungen, waren in hohem Grade erfolgreich gewesen und haben zur Herstellung von Maschinen geführt, welche nicht allein in Rücksicht auf Production, sondern auch auf Qualität, eine grössere, bisher unerreichte Arbeitsfähigkeit besitzen.'

Was die Maschinerie zum Weben betrifft, so wurde erklärt, 'dass in Hinsicht auf Anordnung und Arbeit das den Spinn-Maschinen ertheilte Lob in gleichem Masse den Webemaschinen gebühre.'

Auch in den Winde-, Schlichte- und Haspel-Maschinen war, im Vergleich mit den 1851 ausgestellten, ein grosser Fortschritt bemerkbar.

Die wichtigste seit 1862 gemachte Verände-

rung besteht in der Anpassung der vorhandenen Maschinerie zur Bearbeitung der kurzen Fasern Ostindischer und anderer Baumwollenarten, welche vor dem Amerikanischen Kriege nur in geringem Umfang gebraucht wurden. Vermehrung der Schnelligkeit der Maschinerie wird überall versucht, wo sie ausführbar ist; aber die untergeordneten Baumwollenarten können nicht mit grosser Schnelligkeit bearbeitet werden und erfordern eine grössere Masse von Maschinerie als die bessern Qualitäten.

9. Neben dem in den mechanischen Branchen der Baumwollenindustrie stattgefundenen Fortschritte müssen die Mittel, welche die Regierung angewandt hat, um die Erziehung und den Geschmack der Arbeiter zu heben, nicht übersehen werden. Es bestehen jetzt, wissenschaftliche und Kunstschulen in Verbindung mit dem Departement für Wissenschaft und Kunst, sowohl in den Mittelpunkten der Fabrikdistricte als in anderen Theilen des Landes, und viele Tausende von Schülern empfangen alljährlich Unterweisung in den Elementen der Wissenschaft und den Grundsätzen der Kunst. Ausser diesen Schulen sind 'umherreisende Sammlungen' von Kunstgegenständen organisiert worden, welche die Runde durch die Provinzen machen, und manchem Arbeiter, der nicht im Stande sein würde, eine Reise nach London, zur Ansicht der dortigen Kunstsammlungen, zu unternehmen, werden auf diese Weise gute Modelle an die eigene Thüre gebracht.

Der so ertheilte Unterricht hat eine höchst wohlthätige Wirkung auf die Englischen Fabriken ausgeübt. Ein grosser Fortschritt in dieser Hinsicht war allen denen bemerkbar, welche die Ausstellungen von 1851 und 1862 gesehen; und man ist der Meinung, dass die in der gegenwärtigen Ausstellung in dieser Klasse der Britischen Section ausgestellten Gegenstände, im Vergleich mit den im Jahre 1855 nach Paris gesandten, in der Würdigung der schönen Kunst, sowohl in Bezug auf Farbe als auf Form, grosse Fortschritte bethätigen werden.

[Ueber *Strumpfwirkerwaaren* und *Unterzeug* siehe Klasse 34.]

Klasse XXVIII.

GARNE, FLACHS- UND HANF-FABRICATE ETC.

1. Zu dieser Klasse gehören Garne und Fabricate, die aus andern Pflanzenfasern als aus Baumwolle verfertigt werden. Die Leinwand-Industrie, oder Flachs- und Hanfverarbeitung, erstreckt sich über das ganze Königreich, am ausgebreitetsten jedoch ist sie in den Irischen Grafschaften Antrim und Down.

In England befinden sich die Hauptzweige dieses Handels in den Grafschaften York und Lancaster, in Schottland in den Grafschaften Forfar und Fife. Die Verarbeitung von Jute (Ostindischem Hanf, in andern fremden

Ländern, Frankreich und Holland ausgenommen, kaum bekannt) nimmt jetzt in Schottland eine so wichtige Stellung ein, dass wir davon besonders reden müssen.

Dundee ist der Hauptsitz dieses Handelszweiges. Jute ist ein dem Hanf ähnlicher Faserstoff, woraus hauptsächlich grobe Leinwand, Sack- und Packtuch, so wie auch Fuss- teppiche gemacht werden. Die Zahl der im Jahre 1861 im Vereinigten Königreiche bestehenden Flachs-, Hanf- und Jute-Fabriken war wie folgt:—

Abtheilungen und Grafschaften	Fabriken	Spindeln	Dampf- webe- stühle
FLACHSFABRIKEN			
England und Wales:			
Lancashire . . .	13	117,412	489
Yorkshire . . .	70	172,272	1,403
Andere Grafschaften	53	54,624	268
Summa .	136	344,308	2,160
Schottland:			
Forfar . . .	85	160,090	5,108
Fife . . .	46	54,383	1,823
Andere Grafschaften	32	64,912	1,035
Summa .	163	279,385	7,966
Irland:			
Antrim . . .	47	360,592	2,854
Down . . .	15	103,630	128
Andere Grafschaften	38	128,759	1,684
Summa .	100	592,981	4,666
Gesamtzahl im Ver- einigten Königreiche }	399	1,216,674	14,792
HANF-FABRIKEN			
England und Wales .	3	264	1
Schottland . . .	2	2,816	—
Irland . . .	—	—	—
Summa .	5	2,580	1
JUTE-FABRIKEN			
England und Wales .	4	620	—
Schottland . . .	27	30,538	554
Irland . . .	5	1,824	—
Summa .	36	32,982	554

Seit dem Jahre 1861 jedoch hat der Leinwand- und Jute-Handel, wie aus folgendem amtlichen Berichte erhellt, bedeutend zugenommen. Hier folgt eine Schilderung von dem Zustande der Irischen Leinwand-Industrie am 1. Januar 1866, veröffentlicht durch Herrn Mellyrath, Secretair des 'Belfast Linen Committee.'

Flachsspinnmühlen.

Anzahl, 86; beschäftigte Spindeln, 759,452; ditto, unbeschäftigt, 11,362. Summa 770,814, deren Anzahl man um 103,792 zu vermehren gedachte.

Dampfwebereien.

Fabriken, 44; Webestühle, beschäftigt, 10,538; ditto, unbeschäftigt 266. Summa

10,804, deren Anzahl man um 6,484 zu vermehren gedachte. Ausserdem gab es noch 17,786 Spindeln zum Fadenzwirnen, die man auch um 4,656 zu vermehren beabsichtigte. Neue Mühlen und im Bau begriffene Fabriken waren zur fernern Aufnahme von 62,000 Spindeln und 1,400 Webestühlen bestimmt.

Gewöhnliche Leinwand, Damaste, Cambries, Taschentücher und leichte Linnenwaaren verfertigt man in den Districten von Belfast, Forfar, Brechin, Dunfermline, Barnsley und Manchester, während die Bezirke von Dundee, Hull, Greenock und Arbroath die gröbern Sorten, Segel- und Sacktuch einbringen, liefern. Leeds producirt gleichfalls Leingarne in grosser Menge.

Mr. R. Sturrock, Secretair der Handelskammer zu Dundee, berichtet, dass die Jute-Verarbeitung dort zuerst im Jahre 1830 bekannt geworden sei, und man im Jahre 1865 fast fünf und siebenzig tausend Tonnen roher Jute in jene Stadt eingeführt habe. Er schätzt die gegenwärtige Zahl der Jute-Spinnereien und Webereien auf etwa sechszig, die 100,000 Spindeln und 5,000 Webestühle beschäftigen.

2. Ein grosser Theil des zur Leinwandverarbeitung im Vereinigten Königreich erforderlichen Rohmaterials bringt das Land hervor. Folgende Tabelle zeigt den respectiven Betrag des im Jahre 1866 veranschlagten einheimischen Ertrages und was in diesem Artikel während der fünf Jahre 1861-65 vom Auslande eingeführt wurde.

EINHEIMISCHES ERZEUGNISS.

	Acker
Der mit Flachs angepflanzte Flächenraum in Irland betrug im Jahre 1866	263,649
	Centner
Der etwaige Ertrag im Jahre 1866	1,054,000

AUSLÄNDISCHES ERZEUGNISS ZUM VERBRAUCH EINGEFÜHRT

Jahre	Flachs	Hanf	Jute
	Centner	Centner	Centner
1861	1,286,000	738,000	817,000
1862	1,778,000	908,000	849,000
1863	1,416,000	956,000	1,057,000
1864	1,774,000	943,000	1,754,000
1865	1,816,000	913,000	1,691,000

Sehr viel Hanf wird auch zur Anfertigung von Seilen und Schnüren verwendet. Im Jahre 1861 bestand der mit Flachs angepflanzte Flächenraum in Irland nur aus 148,000 Acker, und der Durchschnittsertrag betrug 451,000 Centner. Ueber den Flachsertrag in Schottland fehlen die genauern Angaben; auch ist dort der Flachsbaues keineswegs ausgedehnt und soll noch in den letzten zehn Jahren sehr abgenommen haben. Die Ausfuhr von Britischem Flachs ist unbedeutend und belief sich im Jahre 1865 auf 35,000 Centner. Der Gesamtbetrag des in der Leinwand und Jute-Industrie verbrauchten Rohmaterials mag annähernd auf vier bis fünf Millionen Centner geschätzt werden.

Von dem im Jahre 1865 eingeführten Flachs

und Rohhanf lieferte Russland, vom erstern 76 Procent, vom letztern 60 Procent.

Oestreich und die Philippinischen Inseln sandten gleichfalls grosse Beiträge. British-Indien liefert allein die Jute.

3. Die Anzahl der in den Flachs-, Hanf- und Jutefabriken Beschäftigten beiderlei Geschlechts und verschiedenen Alters war nach dem letzten im Jahre 1861 veröffentlichten Berichte folgende:—

	England und Wales	Schott- land	Irland	Verein- igtes König- reich
Arbeiter:				
Unter 13 Jahren . .	886	328	236	1,450
13 bis 18	1,422	3,461	3,771	8,654
Ueber 18	3,682	6,842	6,142	16,666
Summa	5,990	10,631	10,149	26,770
Arbeiterinnen:				
Unter 13	1,108	627	459	2,194
Ueber 13	13,376	28,304	23,359	65,039
Summa	14,484	28,931	23,818	67,233
Gesammtzahl der Arbeiter und Ar- beiterinnen . . .	20,474	39,562	33,967	94,003

Die Anzahl der jetzt in der Leinwand- und Jute-Industrie Beschäftigten ist bedeutend grösser als die oben angegebene. Von dem während der letzten fünf oder sechs Jahrestatistiken gefundenen vermehrten Gebrauche des Rohmaterials haben wir bereits gesprochen; die unvermeidliche Folge davon war denn auch eine vermehrte Anzahl von Arbeitern. Die in den Jutefabriken zu Dundee Beschäftigten belaufen sich jetzt auf etwa 28,000, von denen ein Drittel dem männlichen, zwei Drittel dem weiblichen Geschlechte angehören.

4. Die im Leinwandhandel im Jahre 1865 zu Dundee gezahlten Durchschnittslöhne waren:—

	Per Tag von 10 Stunden
In Belfast	s. d.
(Leinwand) { An Spinnerinnen	1 4½
{ „ Weberinnen (Junge)	1 8
{ Mädchen)	

	Per Woche von 60 Stunden
In Dundee	s. d. s. d.
(Leinwand) { An Spinnerinnen 8 6 bis 14 6	
{ Weberinnen	8 0 „ 15 0

Die Lage der in der Leinwand-Industrie Beschäftigten hat sich, zugleich mit den vermehrten Bestellungen, wesentlich verbessert.

Die im Jahre 1866 im Jute-Handel gezahlten Durchschnittslöhne waren:—

	Per Woche von 60 Stunden
	s. d. s. d.
An Spinnerinnen	10 0
„ Weberinnen	12 6 bis 13 4

Die Jute-Factoreien sind gut gebaut und gut gelüftet; auch berücksichtigt man alles, was

zur Annehmlichkeit der Arbeiter beitragen kann. Letztere sind gesund, mässig, fleissig und sparsam.

5. Im Vergleich zum Export führt man nur wenig Leinwandgarne und gewebte Stoffe ein. Im Jahre 1865 wurden 1,216,480 Centner Leinwand und gewebte Stoffe, im Werthe von 153,104 $\frac{1}{2}$., in's Vereinigte Königreich eingeführt. 1,958,000 Centner Jutegarn kam fast ausschliesslich von Frankreich. Der Gesamtwerth desselben betrug 278,000 $\frac{1}{2}$.

6. Andererseits ward in diesem Artikel bedeutend ausgeführt. Die folgende Tabelle giebt den Werth der während der sechs Jahre 1860-65 in's Ausland versendeten Artikel an:—

Jahre	Leinene		Jute *	
	Garne	Stoffe etc.	Garne	Stoffe etc.
	£	£	£	£
1860	1,801,000	4,804,000	nicht	angegeben
1861	1,622,000	3,852,000	85,126	127,031
1862	1,852,000	5,133,000	96,152	123,149
1863	2,530,000	6,508,000	154,618	243,379
1864	2,991,000	8,172,000	114,503	356,764
1865	2,535,000	9,156,000	82,141	3.1,540

* Diese Zahlen sind indessen keineswegs massgebend für den Gesamt-Jute-Export, der grossentheils in die Klasse der Leinwaaren einbegriffen ist.

Der Werth weisser, einfacher und damastener Stoffe belief sich im Jahre 1865 auf achtzehn Millionen, bei einem Gesamtwerthe von neun Millionen. Der des in demselben Jahre ausgeführten zum Nähen bestimmten Leinfadens betrug 558,000 $\frac{1}{2}$. Von 1851 bis 1860 litt der Leinwaaren-Export aus dem Vereinigten Königreiche keine Veränderung und belief sich jährlich auf etwas über vier Millionen.

Das gegenseitige Verhältniss, was die Quantität und den Werth der verschiedenen von 1860-1865 ausgeführten Leinwaaren anbetrifft, zeigt folgende Uebersicht:—

		Quantitäten	
		1860	1865
Leingarne . . . Pfund		31,210,000	36,796,000
Leinene Stoffe:			
Weisse, einfache und damastene	Yard	136,936,000	222,790,000
Gedruckte, gefärbte oder carrirte	„	3,203,000	16,965,000
Segeltuch . . . „		3,857,000	7,250,000
Zwirn . . . „		3,229,000	3,935,000
		Werth (£ Sterling)	
Leingarne . . . Pfund		1,801,000	2,535,000
Leinene Stoffe:			
Weisse, einfache und damastene	Yard	4,161,000	7,537,000
Gedruckte, gefärbte oder carrirte	„	98,000	606,000
Segeltuch . . . „		175,000	333,000
Zwirn . . . „		360,000	558,000

7. Beim Verfertigen der Leinwand bedient man sich fast ausschliesslich der Maschinen; zwar benutzt man hier und da noch Handwebestühle in Irland, jedoch verschwindet der Gebrauch derselben von Tag zu Tag. Dr. Watts berichtet in seiner Schrift, *The Facts of the Cotton Famine*, dass man, was Arbeitersparen bei Verfertigung der Leingarne anbetrifft, während der letzten zehn Jahre grosse Fortschritte gemacht habe. Vor zehn Jahren hielt man noch 9 oder 10 'Leas' (zu 7 Gebinden) per Spindel vom Garne No. 30 für eine hübsche Wochenarbeit, aber im Jahre 1865 verfertigte ein Arbeiter wöchentlich 18 'Leas' von derselben Nummer. Bei der Jute-Verarbeitung bedient man sich auch nur der Maschinen.

8. Die bei der Londoner Ausstellung im Jahre 1862 zur Prüfung der Leinwaaren ernannten Preisrichter erklärten, dass England und Irland im Anbau sowohl als in der Behandlungsweise beim Vollenden des Flachses grosse Fortschritte gemacht hätten. Irland, sagte man damals, verdiene besonderes Lob, denn es verrathe bei der Wahl gedruckter Cambrics und leinener Waaren viel Geschmack. Gedruckte Leinzeuge gehen meistens in's Ausland. Man belobte auch die guten Eigenschaften der gebleichten Irischen Leinwand, deren Güte theils dem für Bleichzwecke günstigen Klima, theils der Behandlungsweise in freier Luft und der Anwendung chemischer Mittel zuzuschreiben ist. Man erkannte auch die im Verfertigen der Taugarne gemachten grossen Fortschritte, sowie die allgemeinere Einführung der Dampfwebestühle an.

Der unveränderte Zustand, worin sich der Export-Leinwandhandel vor dem Jahre 1861 befand, ist bereits erwähnt worden.

Mr. Alcan, Berichterstatter für Klasse 19 während der Ausstellung im Jahre 1862, machte einige sehr interessante Bemerkungen, worin er den Mangel an Fortschritt den Schwierigkeiten zuschrieb, welche die Verarbeitung des Rohmaterials, im Vergleich mit der Leichtigkeit, rohe Baumwolle zu spinnen, darbietet. Er sagte, dass Maschinen-Flachsgarne von gleicher Länge und demselben Fasergewicht kostspieliger seien als Baumwollgarne. Die zum Flachsspinnen erforderlichen Maschinen sind viel stärker und erheischen mehr Dampfkraft als die beim Baumwollspinnen benutzten. Dies liegt an der noch immer mangelhaften Methode des Flachsröstens, wobei viel Gummi in der Faser zurückbleibt und daher das Spinnen bedeutend erschwert.

Eine von den Folgen der Stockung des Baumwollhandels während des Amerikaner Krieges war die vermehrte Nachfrage nach Leinwandfabricaten, was dieser Industrie natürlich einen grossen Aufschwung verlieh. Die während der Baumwoll-Crise bezahlten hohen Preise für Leinwand veranlassten die Grundbesitzer, mehr Flachs anzubauen, und feuerten fremde Flachsbebauer an, ihren Ertrag nach den Englischen Märkten zu senden, ein Umstand, der den Leinwandhandel nur heben

konnte. Es lässt sich mit gutem Grunde annehmen, dass, falls man die während der letzten zehn Jahre gemachten Bestrebungen fortsetzt, der Leinwand-Industrie eine grosse Glanzperiode bevorsteht und die vorübergehende Baumwoll-Crise später zum höhern Wohlstande des Landes beitragen wird.

Was die Jute-Industrie anbetrifft, so schreiten darin die Verbesserungen im Maschinenwesen immer vorwärts; auch wendet man in Folge neuerer Entdeckungen in weit höhern Grade die Jute zu verschiedenen Fabrikzwecken an. Die Zahl der die Kunstschule zu Dundee Besuchenden betrug im Jahre 1865 1,922, und die bei der Juten-Industrie beteiligten Arbeiter sollen aus dem dort genossenen Unterrichte grossen Nutzen gezogen haben.

[*Strumpfwaren und Unterzeug* findet man unter Klasse 34 angegeben.]

Klasse XXIX.

KAMMWOLLE UND WOLLSTOFF-FABRICATE.

1. Das Wort 'Worsted,' worunter man alle aus Kammwolle verfertigten Stoffe versteht, soll von einem Dorfe gleichen Namens in Norfolk, wo dieses Fabricat zuerst gemacht wurde, abstammen. Die Wollen-Industrie, eine sehr alte, hat erst in neuerer Zeit ihre hohe Stellung eingenommen. Vom Jahre 1825 an machte man grosse Fortschritte darin, jedoch wurden bis zu jener Zeit nur 'Worsted's' aus ungemischter Wolle bereitet. Einige Jahre später, nach Einführung der Baumwollkette, gewann diese Industrie einen bedeutenden Aufschwung. 'Worsted's' macht man jetzt sowohl aus ungemischter als gemischter Wolle, Baumwolle, Seide, Alpaca, Mohair etc., und der jährliche Ertrag des Wollhandels ist jetzt an Werth der Wollindustrie fast gleich, wenn nicht grösser. Zu den Reinwoll-'Worsted's' gehören einfache und geköpte Merinos, feine und gewöhnliche Sarsche, Lastings etc., auch Damaste, zu Vorhängen bestimmt. Unter den gemischten Fabricaten haben die aus Wolle und Baumwolle verfertigten, wie zum Beispiel die sogenannten 'Coburgs' und 'Orleans,' einen grossen Absatz; andere Mischungen jedweder Qualität werden gleichfalls in grosser Anzahl gemacht.

Bradford geniesst wegen seiner einfach geköpten Merinos und gemischten Fabricate, Halifax wegen seiner schweren Kammwollstoffe und Damaste eines hohen Rufes.

Bradford, in der Grafschaft York, ist der Hauptsitz dieser 'Worsted'-Industrie. Die Zahl der Wollfabriken in den verschiedenen Provinzen des Königreichs war im Jahre 1861 folgende:—

Provinzen	Anzahl der Fabriken	Anzahl der Spindeln	Anzahl der Dampfwehstühle
England und Wales:			
Yorkshire	443	1,149,072	40,577
Andere Grafschaften	69	96,454	2,391
Summa . .	512	1,245,526	42,968
Schottland . .	17	38,946	80
Irland . . .	3	4,700	—
Summa, Vereinigtes Königreich .	532	1,289,172	43,048

Obleich keine weitere amtliche Berichte über die Anzahl der bei der Wollfabrication angewandten Spindeln und Webestühle vorliegen, so nimmt man doch allgemein an, dass dieselbe seit 1861 sich sehr vergrössert habe.

2. Die Quellen, woraus die Wollfabriken die zu dieser Industrie erforderliche Rohwolle, Baumwolle und Seide beziehen, finden sich unter den in den Klassen 27, 30 und 31 gemachten Bemerkungen. Was die Mohairlieferungen anbetrifft, so zeigt folgende Tabelle die seit den fünf Jahren 1861–65 stattgefundenen Einfuhren:—

Ziegenhaar oder Wolle.

	Pfund
1861	3,335,000
1862	4,048,000
1863	3,434,000
1864	4,737,000
1865	5,402,000

Herr Behrens schätzt das Gesamt-Rohmaterial (Wolle, Mohair, Baumwolle etc.), welches im Jahre 1864 im Wollhandel verbraucht wurde, auf ungefähr 150 Millionen Pfund, und den Werth davon nach der Verarbeitung auf 33,600,000£ Sterling.

3. Von der Gesamtanzahl der in den Wollfabriken des Vereinigten Königreichs im Jahre 1861 angestellten Personen, befanden sich 76,000, oder 88 Procent, in den Fabriken der Grafschaft York. Das Alter und Geschlecht sämtlicher Arbeiter zeigt folgende Tabelle:—

	In England und Wales	In Schottland	In Irland	In Vereinigten Königreiche
Arbeiter:				
Unter 13	6,268	—	—	6,268
13 bis 18	6,424	178	12	6,614
Ueber 18	17,700	895	24	18,619
Summa .	30,392	1,073	36	31,501
Arbeiterinnen:				
Unter 13	6,906	4	—	6,910
Ueber 13	45,674	1,839	139	47,652
Summa .	52,580	1,843	139	54,652
Summa .	82,972	2,916	175	86,063

Dies ist der letzte amtliche Bericht über die Arbeiteranzahl; man glaubt aber, dass die bei

der Wollindustrie Beschäftigten jetzt noch viel grösser sei.

4. Die in den Hauptzweigen der Wollindustrie im Jahre 1866 gezahlten Durchschnittslöhne waren:—

In Bradford.

	s. d.	s. d.	
Spinnerinnen .	7 0	bis 10 0	55 Stunden
Weber .	18 6	.	60 „
Weberinnen .	12 0	.	55 „

In Halifax.

	s. d.	s. d.	
Spinner .	30 0	.	60 „
Spinnerinnen .	7 6	bis 8 6	60 „
Weber .	16 0	„ 24 0	60 „
Weberinnen .	8 0	„ 21 0	60 „

5. Von den eingeführten Wollgarnen haben wir in den unter Klasse 30 gemachten Bemerkungen geredet. Die Einfuhr von Wollstoffen ist unbedeutend. Im Jahre 1865 wurden 154,000 Stücke, auf 334,000l. geschätzt, und meistens aus Frankreich kommend, eingeführt.

6. Die folgende Tabelle zeigt, wie sehr die Ausfuhr der 'Worsted'-Fabricate in den letzten sechs Jahren zugenommen hat:—

Gegenstände	1860	1865
Wollgarne . { Pfund	26,455,000	30,221,000
	£ 3,578,000	5,074,000
Wollstoffe . { Yard	148,685,000	233,078,000
	£ 7,013,000	13,361,000

Seit dem Abschlusse des Handelsvertrags hat der Wollstoffhandel mit Frankreich sehr zugenommen. Der Betrag dieses Exports war im Jahre 1865 auf 1,332,000l. gestiegen.

7. Bei der Wollfabrication bedient man sich der Maschinen. Die in den Wollfabriken im Jahre 1861 angewandte Bewegkraft betrug 25,426 Dampf-Pferdekraft und 1,667 Wasser-Pferdekraft.

8. Den Erfolg der Wollindustrie in England schreibt man der Beharrlichkeit, Geschicklichkeit und dem Schöpfungsgeiste zu, die es verstanden, Thier- und Pflanzenfasern gemeinsam zu benutzen und auf diese Weise der Bevölkerung billige, gute und unentbehrliche Kleidungsstoffe und Hausgeräthe zu verschaffen.

Die chemischen Processe, welche erforderlich sind, um die aus Thier- und Pflanzenfasern zusammengesetzten Stoffe für gleich- und regelmässige Färbung empfänglich zu machen, sind natürlich mannigfaltig und verwickelt, aber die in der Färbekunst gemachten Fortschritte sind so gross, dass jetzt weisse Baumwollkettenzeuge mit Wollenschlag eben so schön gefärbt werden können wie Französische Merinos aus ungefärbter Wolle. Hinsichtlich der in diesem Zweige gemachten Fortschritte sagt die im Jahre 1862 ernannte Jury für gemischte Stoffe:—

‘Ein grosser Fortschritt zeigt sich im Färben der Baumwollkettenzeuge, in der Art und Weise, helle Wolle und Mohair zu behandeln,

und namentlich in der Kenntniss und dem Geschmacke beim Färben derjenigen Modewaaren, welche jetzt einen so bedeutenden Theil dieses Handelszweiges ausmachen.’

Eine im Jahre 1865 zu Bradford gegründete Kunstschule wird gewiss den Geschmack aller bei der Wollindustrie dieses Districtes Beschäftigten noch mehr veredeln.

[Strumpfwaaren und Unterzeug findet man unter Klasse 34 angegeben.]

Klasse XXX.

TUCHWOLLE UND WOLLENZEUGE.

1. Obgleich die Wollenindustrie in sehr früher Zeit in England existirte, so kann doch kaum bezweifelt werden, dass sie ihre dauernde Begründung in hohem Masse der Verordnung König Edwards III. verdankt, welcher die Flämischen Fabricanten im Jahre 1331 einlud, sich in England niederzulassen. Vor diesem Ereigniss wurde Englische Wolle nach Flandern exportirt und in fabricirter Gestalt zurückgebracht; seit jener Zeit jedoch hat die Baumwollenindustrie stätig zugenommen und wird als einer der wichtigsten Industriezweige des Staates betrachtet.

Die Wollenfabriken des West-Riding von Yorkshire und die in West-England, welche während der Regierung Edwards III. gegründet wurden, sind bis heut zu Tage die Hauptsitze dieser umfangreichen Industrie geblieben. Leeds ist der wichtigste Mittelpunkt des West-Riding-Districts und kann als die Metropole des Wollhandels betrachtet werden. Huddersfield, nebst Umgegend, steht an Bedeutung in zweiter Reihe und ist, ausser seiner Production von feinem Tuch, wegen seines grossen Geschäfts in Modebekleiderstoffen etc. berühmt. In West-England ist Trowbridge, in Wiltshire, der Mittelpunkt eines grossen Districts, welcher Modestoffe und viele Arten von leichtem Tuch producirt; und Stroud, in Gloucestershire, ist wegen seiner Scharlach- und anderer hellfarbigen Tuchstoffe berühmt, und diesen Ruf verdankt es dem Umstande, dass das Wasser dort sich zu Färbeprocessen eignet. Die Schottischen Stoffe, Tweeds, Tartans etc., sind gewöhnlich von schöner weicher Art und dauernder Farbe. Wollene Decken, die ebenfalls zu dieser Klasse gehören, werden besonders in Witney, in Oxfordshire, und in Dewsbury, in Yorkshire, gemacht. Flanell wird in Wales verfertigt, hauptsächlich durch Handarbeit, und Rochdale, nebst Umgegend, ist jetzt der Mittelpunkt der Englischen Branche dieses Geschäfts. Filzteppiche werden in dem District von Yorkshire gemacht und in England als ein billiges Substitut für Teppiche viel gebraucht.

Ein sehr wichtiger Theil des Wollgeschäfts, der mehr als eine vorübergehende Beachtung verdient, ist der des 'Shoddy'-Handels. Die folgenden interessanten Bemerkungen wurden von der Jury über Wollstoffe in der Ausstel-

lung von 1862 gemacht: 'Es giebt dreierlei Shoddy: 1. Shoddy, aus weichen wollenen Lumpen, wie Flanell, Decken, Strümpfen, Teppichen etc.; 2. Mungo, aus harten und weichen wollenen Lumpen und Abfall von neuem Tuch etc. gemacht; 3. Wolleextract, d. h. Wolle aus gemischten Baumwollen- und Wollenlumpen, durch einen chemischen Process gewonnen, welcher die Baumwolle verzehrt und die Wolle unberührt lässt. Die Mischung von Shoddy und Wolle, nebst der Benutzung von Garnenden der Baumwolle, ist die werthvollste Anwendung von Materialien in der Geschichte des Baumwollengeschäfts, welche der erfinderische Geist des Menschen entdeckt hat. Durch sie wird eine grosse Menge der untern Gesellschaftsklassen in den Stand gesetzt, sich nützliche und bequeme Kleidungsstücke, welche ehemals ihre Mittel überstiegen, zu verschaffen. Dewsbury, Batley und die umliegenden Städte des West-Riding von Yorkshire sind die Mittelpunkte dieser Fabrication.'

Die Statistik der Wollenindustrie des Vereinigten Königreichs für das Jahr 1861 ist wie folgt:—

Provinzen und Grafschaften	Zahl von Wollenfabriken	Zahl von Spindeln	Zahl von Webemaschinen
England und Wales:			
Yorkshire . . .	924	1,296,190	11,405
Devonshire . . .	16	12,585	255
Gloucestershire . . .	49	59,986	618
Lancashire . . .	101	277,655	6,377
Montgomery . . .	43	20,920	262
Somersetshire . . .	26	31,401	401
Wiltshire . . .	32	44,825	549
Andere Grafschaften	265	103,288	477
Summa . . .	1,456	1,846,850	20,344
Schottland:			
Aberdeen . . .	25	17,510	93
Clackmannau . . .	15	38,311	214
Peebles . . .	7	51,142	101
Perth . . .	16	16,353	—
Roxburgh . . .	21	60,747	300
Selkirk . . .	16	46,368	158
Sterling . . .	23	32,950	64
Andere Grafschaften	61	53,804	378
Summa . . .	184	317,185	1,303
Irland . . .	39	18,574	123
Summa für das Vereinigte Königreich . . .	1,679	2,182,609	21,770

Die für das Jahr 1861 angegebene Zahl von Webemaschinen ist jedoch viel geringer als die der jetzt gebrauchten, da das Steigen der Baumwollenpreise während der Baumwollentheuerung der Wollindustrie einen grossen Aufschwung gegeben hat.

2. Das Rohmaterial der Wollindustrie wird in beträchtlichem Umfang im Inlande producirt, aber da keine genauen Daten über den Betrag der einheimischen Production vorhanden sind, kann nur eine Veranschlagung gegeben werden. Wenn man diese Veranschlagung auf die Zahl

der einheimischen Schafe gründet, so beläuft sich die einheimische Production wahrscheinlich auf 152,000,000 Pfund jährlich.

Die jährliche Durchschnittsausfuhr Britischer Wolle während der letzten fünf Jahre betrug 10,000,000 Pfund.

Von der fremden Zufuhr werden durchschnittlich mehr als 70 Procent von den Englischen Colonien geliefert, unter welchen Australien und die Südafrikanischen Besitzungen voranstehen. Deutschland liefert einige der feineren Wollarten, und eine grosse Quantität wird auch aus Süd-Amerika importirt. Der rasche Fortschritt des Wollgeschäfts während der letzten Jahre erhellt aus der nachstehenden Tabelle über die Einfuhr aller Arten roher Wolle (Schaf- und Lamms-, Alpaca-, Llama- und Vicuna-Wolle) während der Jahre 1855, 1860 und 1865:—

Länder, woher importirt	1855	1860	1865
	Pfund	Pfund	Pfund
Englische Colonien:			
Australien . . .	49,142,000	59,166,000	109,734,000
Indien . . .	14,383,000	20,214,000	17,105,000
Cap der guten Hoffnung etc. . .	11,075,000	16,574,000	29,220,000
Fremde Länder:			
Spanien . . .	68,000	1,000,000	115,000
Deutschland . . .	6,128,000	9,292,000	6,858,000
Andere Europäische Staaten . . .	8,119,000	28,570,000	27,693,000
Südamerika . . .	7,106,000	8,950,000	17,867,000
Andere Länder . . .	3,379,000	4,630,000	3,614,000
Gesamteinfuhr . . .	99,300,000	148,396,000	212,206,000
Gesamtausfuhr . . .	29,453,000	30,761,000	82,445,000
Blieb für Consumption übrig . . .	69,847,000	117,635,000	129,761,000

Man darf nicht vergessen, dass die obigen statistischen Angaben sich auf die rohe Wolle, etc. beziehen, welche sowohl in der Wollgarn- als in der Wollenstoff-Industrie benutzt wurde. Von der Gesamteinfuhr von 212 Millionen Pfund kamen beinahe drei Millionen Pfund auf Alpaca-, Llama- und Vicuna-Wolle.

Ausser dem obigen wurden die folgenden Quantitäten wollener Lumpen etc. für das Shoddy-Geschäft importirt:—

	Wollene Lumpen	Wollene Lumpen, zerissen um als Wolle gebraucht zu werden
	Tonnen	Tonnen
1861 . . .	3,290	7,602
1862 . . .	4,311	8,972
1863 . . .	5,766	9,866
1864 . . .	5,909	10,037
1865 . . .	5,462	9,316

Mr. Behrens schätzt die jährliche Production von Shoddy-Wolle in England auf 52 Millionen Pfund und von Wolleextract auf 5 Millionen Pfund.

Die Gesamtveranschlagung der in dem

Wollenstoff- und Wollgarngeschäft Englands gebrauchten Rohmaterialien war im Jahre 1865 wie folgt:—

	Millionen Pfund
Englische Wolle (mit Abzug der Ausfuhr)	142
Fremde Wolle	130
Shoddy-Wolle, einheimische Fabrication	52
„ „ importirt	22
Wollextract	5
Wollgarn	4½
Ziegenhaar oder Wolle	5

360½

Mr. Behrens schätzte die Gesamtmasse der in der Wollen- und Worsted-Industrie im Jahre 1864 benutzten Rohmaterialien auf 384 Millionen Pfund und vertheilte diese Masse zwischen die beiden Industrien wie folgt: In der Wollen-Industrie 234 Millionen Pfund, die als Fabricate einem Werthe von 30,800,000£. Sterling gleichkamen, und in der Worsted-Industrie 150 Millionen Pfund, in fabricirtem Zustande 33,600,000£. Sterling werth. Die Einfuhr fremder Wolle im Jahre 1865 war bedeutend geringer als die im Jahre 1864 stattgefunden.

3. Die während des Jahres 1861 in den Wollfabriken beschäftigte Zahl von Arbeitern jedes Geschlechts und Alters war:—

	England und Wales	Schott- land	Irland	Vereinigtes Königreich
Abeiter:				
Unter 13 .	3,933	29	—	3,362
13 bis 18 .	9,811	1,327	75	11,213
Ueber 18 .	30,954	3,855	370	35,179
Summa .	44,098	5,211	445	49,754
Arbeiterinnen:				
Unter 13 .	2,598	9	—	2,607
Ueber 13 .	29,613	4,592	417	34,622
Summa	32,211	4,601	417	37,229
Arbeiter und Arbeiterinnen zusammen	76,309	9,812	862	86,983

Bei der raschen Ausdehnung der Wollindustrie seit dem Jahre 1861 sind die obigen Zahlen beträchtlich niedriger als die der jetzt wirklich beschäftigten Arbeiter.

4. Die Durchschnittslöhne in den zwei Hauptdistricten des Wollgeschäfts waren im Jahre 1866 wie folgt:—

Männer.

		Per Woche von 60 Stunden s. s. d.
In Huddersfield	Spinner .	18 bis 30 0
	Weber .	18 „ 23 6
	Muster-Weber	16 „ 30 0
	„ Zeichner	30 „ 50 0
In Dewsbury	Spinner .	34
	Weber .	20
	Muster-Weber	22
	„ Zeichner	36

5. Die Englischen Geschäftsberichte unterscheiden nicht die Einfuhr von Wollgarn von der von Worsted-Garn. Die seit kurzem stattgehabte Zunahme der Quantität importirten Garns, welches in den officiellen Berichten als Woll- und Worsted-Garn angegeben wird, ist wahrscheinlich mehr der Nachfrage in der Worsted- als in der Woll-Branche des Geschäfts zuzuschreiben. Die folgenden Massen beider Arten von Garn wurden zwischen den Jahren 1861 und 1865 importirt:—

	Pfund
1861	1,577,000
1862	2,244,000
1863	4,526,000
1864	4,654,000
1865	4,392,000

Die obigen Zahlen schliessen auch Berliner Wolle und Garn für Modeszwecke ein, welche sich im Jahre 1865 auf 211,000 Pfund beliefen.

Der Werth der während desselben Zeitraums importirten Wollenzeuge war:—

	£
1861	119,654
1862	124,245
1863	147,757
1864	177,922
1865	190,221

6. Die Berichte über die Ausfuhr der in diese Klasse gehörenden Hauptwaaren bezeugen einen blühenden Zustand dieses Geschäftszweigs, wie die nachstehende vergleichende Tabelle beweist:—

	Quantitäten		Werth	
	1860	1865	1860	1865
Wollgarne {	Pfund nicht angegeben	Pfund	£	£
	203,929		nicht-angegeben	35,694
Wollenzeuge: Verschiedene Tucharten	Ellen	Ellen		
	23,968,000	25,616,000	2,996,000	4,024,000
Flanell, Decken und Boy ('baize')	12,641,000	14,769,000	848,000	1,203,000

7. Der grössere Theil der Wollfabrication findet durch Maschinerie statt, aber obgleich ein beträchtlicher Fortschritt in der Vervollkommnung der dazu angewandten Maschinerie gemacht worden ist, steht die Wollindustrie in dieser Hinsicht doch weit hinter der Baumwollenindustrie zurück. Weben mit dem Handwebestuhl wird noch in einigen ländlichen Districten von Yorkshire betrieben, aber der Gebrauch von Handwebestühlen nimmt allmählig ab. Die während des Jahres 1861 in den Wollfabriken angewandte Maschinenkraft war 26,879 Dampf-Pferdekraft und 9,598 Wasser-Pferdekraft.

8. Der Fortschritt der Wollindustrie in allen ihren Branchen war während der letzten zehn Jahre sehr bedeutend. Die vermehrte Zufuhr von Rohmaterial, die Einführung neuer Com-

binationen von Wolle mit anderen Materialien, verbesserter Maschinerie und neuer Färbeprozesse mögen als Beweise des Fortschritts erwähnt werden. Der erweiterte Gebrauch von Webemaschinen, besonders mit Bezug auf die Einrichtung derselben zum Weben von Mustern in allen möglichen Farben, hat wesentlich zu dem verbesserten Stande des Wollgeschäfts beigetragen. Grosse Verbesserungen sind auch in fast allen Maschinen angebracht worden, welche zur Fabrication benutzt werden. Das wichtige Element vermehrter Schnelligkeit im Maschinengange ist ebenfalls sorgfältig berücksichtigt worden.

Die Production von Shoddy-Zeugen, welche im Vergleich mit den Preisen wirklichen Tuchs gering sind, während die erstern, mit Ausnahme der Güte der Arbeit und der Dauerhaftigkeit der Farbe, dieselbe Qualität haben wie reine Wollenstoffe, hat sich für viele Volksklassen als eine grosse Wohlthat erwiesen, nicht allein indem die ärmeren Klassen dadurch mit guten Kleidungsstücken versehen wurden, sondern auch indem man dadurch ein Material verwerthete, welches man früher als nutzlos betrachtet hatte, und dessen Fabrication mehreren Tausend Arbeitern Beschäftigung gewährte.

Die grosse Nachfrage nach wollenen Modewaaren hat während der letzten Jahre sowohl Musterzeichnern als Färbern vollauf zu thun gegeben. Leeds, Huddersfield, Stroud und Trowbridge besitzen sämmtlich Kunstschulen, und mehr als 8,000 Schüler empfangen während des Jahres 1865 in diesen Schulen Unterricht. Die Entdeckung des Anilins hat mächtige Verbesserungen sowohl in den Mustern als in den Farben der besseren Arten von Wollenzeugen veranlasst.

Die rasche Zunahme co-operativer Gesellschaften, die Versorgung der Arbeiter mit Lebensmitteln und Kleidungsstücken zu En-gros-Preisen bezweckend, wird hoffentlich zur Ausbreitung öconomischer Gewohnheiten unter der arbeitenden Bevölkerung in den Woll-districten mitwirken.

Klasse XXXI.

SEIDE UND SEIDENSTOFFE.

1. Die Seidenindustrie des Vereinigten Königreichs, obgleich von geringerem Umfang als die der anderen gewebten Fabricate, ist nichtsdestoweniger von beträchtlicher Bedeutung. Die Ausbildung derselben wurde viele Jahre hindurch verzögert durch ein System von Verböten und Beschränkungen der Einfuhr fremder Seidenstoffe, und da die Concurrenz, welche unter allen Umständen für eine grosse Production nothwendig ist, auf diese Weise ausgeschlossen wurde, blieb die einheimische Seidenindustrie lange Zeit in einem höchst unbefriedigenden Zustande. Die Sicherheit vor fremder Eifersucht und das Monopol des beschränkten einheimi-

schen Markts, deren das Geschäft sich so lange erfreute, wurden theuer erkauft. Während in England die Mehrzahl der Fabricanten sich damit begnügte, den geschlossenen einheimischen Markt zu versorgen, ohne in ihren Fabricaten wesentliche Verbesserungen zu bewirken, wurden in fremden Ländern in den verschiedenen Processen der Fabrication grosse Fortschritte gemacht, und bei der Einführung des Freihandelsystems fanden die Britischen Fabricanten sich daher in einer sehr unvortheilhaften Stellung. Seit dem Jahre 1851 ist das Englische Seidengeschäft jedoch sehr vorgeschritten, trotz der vielen Schwierigkeiten, mit welchen es zu kämpfen hatte.

Zwischen den Jahren 1850 und 1861 vermehrte sich die Zahl der Seidenfabriken in dem Vereinigten Königreich von 277, im erstern Jahre, auf 771, im letzteren, die von Spindeln von 1,225,000 auf 1,338,000 und die Zahl von Webemaschinen von 6,092 auf 10,709. Die Vertheilung der Seidenfabriken in den drei Provinzen des Königreichs war im Jahre 1861 folgende:—

	Zahl von Fabriken	Zahl von Spindeln	Zahl von Webemaschinen
England und Wales:			
Cheshire . . .	175	409,470	1,509
Derbyshire . . .	42	98,210	449
Essex . . .	9	155,681	591
Lancashire . . .	48	128,109	4,201
Warwickshire . . .	331	6,732	2,065
Yorkshire . . .	27	122,952	8
Andere Grafschaften	129	384,756	1,812
Summa . . .	761	1,305,910	10,635
Schottland . . .	8	31,452	60
Irland . . .	2	1,182	14
Gesamtsumme für das Vereinigte Königreich . . .	771	1,338,544	10,709

Seidenzeuge werden hauptsächlich in Manchester, Bänder in Coventry und Modeseidenwaaren in Macclesfield fabricirt.

2. Das in der Seidenindustrie benutzte Rohmaterial wird besonders aus Italien, China, Indien und Japan bezogen, und die Hauptmasse liefern die drei letztgenannten Länder.

Die Masse des Rohmaterials, welches während der sechs Jahre 1860–65 zum eignen Verbrauche behalten wurde, betrug:—

	Rohe Seide Pfund	Knäuel, Schalen und Abfall Pfund
1860 . . .	6,024,000	1,784,000
1861 . . .	4,613,000	3,225,000
1862 . . .	5,166,000	2,678,000
1863 . . .	5,368,000	3,455,000
1864 . . .	1,733,000	2,091,000
1864 . . .	4,595,000	3,608,000

Durchschnitt 4,583,000 2,907,000

Eine kleine Quantität flirte Seide wird

ebenfalls importirt, aber die Einfuhr hat seit 1860 bedeutend abgenommen. Im Jahre 1865 betrug sie 60,130 Pfund.

Die obigen Zahlen beziehen sich auf die Gesamtzufuhr roher Seide, von der ein Theil zur Fabrication gemischter Stoffe, Strumpfwirkerwaaren, Spitzen etc. verwandt wird.

3. Die Zahl von Personen jeden Geschlechts und Alters, welche während des Jahres 1861 in England und Wales mit der Seidenfabrication beschäftigt waren, belief sich auf:—

	Zahl
Arbeiter . { Unter 13 .	2,120
13 bis 18 .	3,185
Ueber 18 .	9,996

Summa . 15,301

Arbeiterinnen { Unter 13 .	4,673
Ueber 13 .	31,217

Summa . 35,890

Gesamtsumme der Arbeiter und Arbeiterinnen . 51,191

Ueber die Zahl der gegenwärtig beschäftigten Arbeiter sind keine Berichte vorhanden.

4. Die Arbeitslöhne in dem Seidengeschäft von Manchester haben zwischen den Jahren 1849 und 1859 um 10 Procent zugenommen; während des letzteren Jahres betrugen die den Hauptarbeitern gezahlten Durchschnittslöhne:—

	Per Woche von 60 Stunden
Mühlenleute und Fadendreher .	17 0
Spinner (junge Burschen und Knaben) .	10 0
Doublirer (Frauen) .	8 9
Werfer (Männer) .	24 0
Weber „ .	20 0

In dem Bericht eines Local-Comités an die 'British Association' im Jahre 1865 wurde erklärt, dass die Zahl der mit dem Bandgeschäft von Coventry beschäftigten Personen im Jahre 1864 auf 2,000 Männer und 4,000 Frauen veranschlagt wurde, obgleich man die Veranschlagung, besonders der Frauen, für zu gering hielt. Die in dem Bandgeschäft angestellte Arbeiter gezahlten Durchschnittslöhne schwankten zwischen 25s. und 28s. per Woche. Die von Frauen verdienten Wochenlöhne betrugen von 7s. bis zu 10s.

5. Der Werth der in das Vereinigte Königreich importirten Seidenfabricate hat seit dem Jahre 1860 rasch zugenommen. Diese Zunahme rührt her von der Ausdehnung des Handels zwischen England und Frankreich, in Folge des Handelsvertrages mit diesem Lande. Die Haupteinfuhr von Frankreich besteht in einfachen Seide- und Atlas-Breitstoffen ('broadstuffs') und Bändern.

Der Gesamtwerth der während der sechs Jahre 1860–65 importirten Seidenfabricate betrug:—

	£
1860	3,344,000
1861	5,906,000
1862	6,618,000
1863	6,639,000
1864	7,620,000
1865	8,496,000

6. Der Werth der während derselben Jahre exportirten Englischen Seidenfabricate betrug:—

	£
1860	1,587,000
1861	1,395,000
1862	1,264,000
1863	1,421,000
1864	1,460,000
1865	1,404,000

7. Ein Theil des Seidenbandgeschäfts wird noch in den Wohnungen der Arbeiter betrieben, aber die allgemeine Richtung der Zeit geht auf Vereinigung der Arbeiter in den Fabriken.

Aus manchen Ursachen ist die Seidenindustrie, von sämmtlichen Webeindustrien, vielleicht den grössten Schwankungen unterworfen. Der Englische Seidenhandel hat, in Gemeinschaft mit dem anderer Länder, während der letzten Jahre wesentlich gelitten durch eine Krankheit des Seidenwurms und einen Modewechsel, welcher die Bandbranche des Geschäfts stark beeinflusst hat. Wenn man diese Thatsachen berücksichtigt, so darf die Statistik des Ausfuhrgeschäfts Britisher Seidenstoffe als ein befriedigenderer Beweis für den Geschäftszustand gelten, als ein solcher unter den Umständen hätte erwartet werden können.

Grosse Verbesserungen haben in der Ausarbeitung und Farbe der Englischen Seidenbänder stattgefunden, und man ist der Ansicht, dass die Proben von diesen und andern Fabricaten in der gegenwärtigen Ausstellung ein Zeugniß ablegen werden für die bedeutenden Fortschritte, welche seit der Pariser Ausstellung von 1855 in dem Englischen Seidengeschäft im Grossen und Ganzen gemacht worden sind.

[Ueber *Strumpfwirkerwaaren* und *Unterzeug* siehe Klasse 34.]

Klasse XXXII.

SHAWLE.

Die Fabrication von Shawlen hat während der letzten funfzehn Jahre in dem Vereinigten Königreich grosse Fortschritte gemacht. Wollenshawle werden besonders in Schottland und in Yorkshire fabricirt. Paisley, in Schottland, ist viele Jahre hindurch für die vortreffliche Qualität von Fabricaten dieser Gattung berühmt gewesen, und Bradford fabricirt jetzt viele Arten von Worsted-Shawlen. Seidenshawle werden hauptsächlich in Norwich gemacht.

Die vorzüglichsten importirten Shawle kommen aus Cashmere, in Indien, Seidencrepp aus

China etc. und Wollenshawle besonders aus Frankreich.

Nachstehend folgt die Statistik des Englischen Exportgeschäfts in dieser Klasse von Fabricaten während des Jahres 1865:—

	No.	£
Wollen- und Worsted-Shawle	431,350	145,570
Taschentücher, Halstücher und Shawle von reiner Seide	Dutzend 129,560	235,825
Ditto von Seide mit anderen Stoffen gemischt	15,513	16,461

Grosse Verbesserungen in den für Shawle benutzten Zeichnungen haben seit 1851 besonders in den Schottischen Fabricaten stattgefunden. Paisley besitzt seit 1848 eine Kunstschule, in welcher während des Jahres 1865 1,063 Schüler Unterricht erhielten.

Klasse XXXIII.

SPITZEN-, NETZ-, STICKEREI- UND KURZWAAREN-FABRICATE.

1. Der Hauptsitz der Spitzenfabrication mit Maschinen ist in Nottingham und dessen Nachbarschaft. Spitzen werden auch in Derbyshire, Tiverton, Barnstaple und Chard fabricirt. Die anderen Spitzengattungen werden in den Grafschaften Buckingham, Bedford, Oxford, in Northampton, Honiton und Limerick gemacht. Das Mousselin-Stickereigeschäft wird in Irland und Schottland betrieben.

Die nachstehenden statistischen Angaben über das Maschinen-Spitzengeschäft von Nottingham und anderen Districten, während des Jahres 1866, sind einem Bericht der Handelskammer in Nottingham an das Handelsministerium entnommen:—

	No.
Circulär-Maschinen zur Anfertigung von Spitzengrund	1,797
Lever's Maschinen zur Anfertigung von Modespitzenwaaren	1,589
Verschiedene Maschinen	166

Von den oben angegebenen 1,797 Circulär-Maschinen waren 700 in Nottingham und dessen Nachbarschaft, 500 in Derbyshire, 200 in Tiverton, 100 in Barnstaple und 300 in Chard beschäftigt. Sämmtliche 'Lever's' und 'verschiedene' Maschinen arbeiteten in Nottingham.

2. Die Quellen, aus welchen die Zufuhr des in diesen Industriezweigen benutzten Rohmaterials stattfindet, wird man in den Bemerkungen zu Klassen 27 bis 31 angegeben finden.

3. Die Zahl der mit dieser Industrie in dem District von Nottingham beschäftigten Personen (mit Ausschluss von Mädchen, die von früher Jugend an in den Häusern von Herinnen, oft ihrer eigenen Mütter, mit Arbeit

verschiedener Art aus den Waarenhäusern etc. beschäftigt werden) beträgt etwa 38,000.

Nach dem Bericht der Jury, in Klasse 24 der Londoner Ausstellung von 1862, giebt die Klöppelspitzen-Industrie ungefähr 25,000 Frauen und Kindern Beschäftigung, die ihre Arbeit zu Hause betreiben; und das Mousselin-Stickereigeschäft, wenn es in vollem Gange ist, nicht weniger als 200,000 Personen in Irland und 25,000 in Schottland, welche ebenfalls zu Hause arbeiten.

4. Die den Hauptklassen von Arbeitern in dem District von Nottingham gezahlten Durchschnittslöhne waren im Jahre 1866:—

An Spitzengrund-Maschinen, mit der Fabrication aller Arten von einfachen und Modespitzen beschäftigt.

Arbeiter:	Wochenlohn s. s.	Arbeitsstunden per Tag
Knaben	5	10½
Junge Leute	16	Jede Maschine beschäftigt der Regel nach zwei Männer, die abwechselnd von 9 bis 10 Stunden täglich arbeiten
Männer	25	
„ geschickteste Arbeiter	35 bis 50	
Aufseher der Maschinerie	35	
Arbeiterinnen:		
Von sieben Jahren an, Ausbesserer und Einfädler	4 bis 8	Wechselnde Stunden
Weissausbesserer und Falter	9 „ 12	In Fabriken: 10½; in Waarenhäusern: von 8 Uhr Morg. bis 7 Uhr Abends
Ausstatter	10	
Aufseher und geschickte Waarenhaus-Frauen	13 „ 15	

Die als Ausbesserer arbeitenden Mädchen, von sieben Jahren an, sind vorzugsweise zu Hause beschäftigt. Gelegentliche Ueberzeit wird gewöhnlich extra bezahlt.

5. Die nachstehende Tabelle zeigt den Werth der Spitzen und Stickereien, welche im Jahre 1865 in das Vereinigte Königreich importirt wurden:—

Spitzen:	£
Mohair oder Worsted	256
Klöppelspitzen von Garn oder Baumwolle	78,861
Klöppelspitzen von Seide	18,855
Maschinen- oder nachgeahmte (falsche) Spitzen, nicht mit der Hand gemacht	69,734
Stickereien und Nadelarbeit:	
Vorhänge auf Mousselin oder Tüll gestickt	16,115
Andere Arten	41,970

Klöpfelspitzen werden hauptsächlich aus Belgien und Maschinenspitzen aus Frankreich importirt.

6. Die Ausfuhr der zu dieser Klasse gehörenden Englischen Fabricate betrug während desselben Jahres:—

	£
Baumwollenspitzen und Patent- Tüll	465,611
Leinwandspitzen	322
Seidenspitzen, aus reiner Seide	63,351
„ mit anderen Mate- rialien gemischt	84,314
Stickereien und Nadelarbeit von allen Arten	174,670

7. Die Branchen des Geschäfts, welche mit der Hand und mit Maschinerie betrieben werden, sind bereits angeführt worden.

8. Mr. Birkin sagt in einem Bericht über den Fortschritt in der Fabrication von Maschinenspitzen im Jahre 1862, 'dass der Styl der Arbeit und der Zeichnungen im Allgemeinen sehr verbessert ist und kunstreichere Muster producirt werden als früher. Diese Ausbildung wurde ohne Zweifel befördert durch die grössere Vervollkommnung, welche die Anwendung des Jacquard der Spitzenmaschinerie ertheilt, und durch den besseren Geschmack, welchen die Kunstschulen unter den Musterzeichnern verbreitet haben.' Seit dem Jahre 1843 besteht in Nottingham eine Kunstschule.

Auch in der Fabrication von Spitzengardinen hat ein bedeutender Fortschritt stattgefunden.

Klasse XXXIV.

STRUMPFWIRKERWAAREN UND UNTERZEUG,
NEBST DEN DAZU GEBÖRIGEN GEGEN-
STÄNDEN.

1. Das Strumpfwirkergeschäft wird hauptsächlich in den Grafschaften Nottingham, Leicester und Derby und in einigen Städten anderer Englischer Grafschaften; in Balbriggan, in Irland, und in Hawick, Galashiels etc., in Schottland, betrieben. Nottingham producirt Baumwollen- und Seidenfabricate, Derby besonders Seiden- und Leicester Wollfabricate.

Die Statistik des Geschäfts von Nottingham war, nach einem Berichte der Handelskammer dieser Stadt an das Handelsministerium, im Jahre 1866 wie folgt:—

	No.
Enge Handrahmen	11,000
Weite Handrahmen	4,250
Drehrahmen	1,000
Circulärrahmen	1,200
Abscherrahmen	400

Es fehlt an neuern Berichten über die verschiedenen Arten der in Leicester benutzten Maschinerie; aber die Handelskammer bemerkt, dass die altmodischen engen Rahmen allmählig durch weite Rahmen ersetzt werden, und die Zahl der, hauptsächlich zu bil-

ligen Fabricaten gebrauchten, Circulärrahmen rasch zunimmt. Die Zunahme der Gesamtbevölkerung in dem District von Leicester, von 67,000 Personen im Jahre 1861, auf 80,000 Personen im Jahre 1866, wird den Fortschritt, welcher in dem Geschäft des Districts stattfindet, einigermassen andeuten.

Die letzten Berichte für Derby und Schottland sind die im Jahre 1861 veröffentlichten, zu welcher Zeit vier Strumpfwirkerfabriken in Derby und vier in Schottland bestanden.

Die Handschuh- und Regenschirmgeschäfte sind beide von grosser Bedeutung, obgleich keine Berichte über den wirklichen Retrag der Production dieser Fabricate vorhanden sind. Handschuhe werden hauptsächlich in Worcester, Leicester, Nottingham and London gemacht. Ansehnliche Branchen des Regenschirmgeschäfts befinden sich in Lancashire und in London, und die Fabrication von Regenschirmgestellen wird in grossem Umfang in Birmingham betrieben.

2. Die Quellen, aus welchen die in dem Strumpfwirker-Geschäft gebrauchten Rohmaterialien bezogen werden, wird man in den Bemerkungen zu Klassen 27 bis 31 angegeben finden.

3. Die Zahl der in dem Strumpfwirkergeschäft in Nottingham und dessen Umgegend beschäftigten Personen beträgt ungefähr 64,000. Berichte über die Zahl der in der Leicester-Branche dieser Fabrication gegenwärtig beschäftigten Personen sind nicht vorhanden; aber in dem Census von 1861 wurde dieselbe auf 22,000 angegeben.

Die Durchschnittslöhne, welche den Arbeitern der Strumpfwirkergeschäfte in Nottingham und Leicester während des Jahres 1866 gezahlt wurden, betrugen:—

In Nottingham.

Beschäftigt an:	Per Woche s. d.
Engen Hand- rahmen { Männer, Frauen { und Burschen }	10 6
Weiten Hand- rahmen { Männer	15 0
{ Mädchen und	4 0
{ Frauen	
Drehrahmen . { Männer	20 bis 32
{ Mädchen und	5
{ Frauen	
Circulärrah- men { Männer	20 „ 35
{ Burschen und	12 „ 20
{ Frauen	
{ Mädchen und	
{ Frauen (Aus- besserer	7 „ 12
Abscherrahmen { Männer	16 „ 35
{ Burschen	12 „ 20

Die engen und weiten Rahmen waren in Thätigkeit in 4,700 Werkstätten (in jeder durchschnittlich drei bis vier Rahmen), welche gewöhnlich einen Theil der Wohnhäuser der Arbeiter bildeten. Die Arbeiter an den anderen Maschinen werden während der gewöhnlichen Zahl von Fabrikstunden beschäftigt.

In Leicester.

Einfache Strumpfwirkerarbeit und Unterzeug:	Per Woche von 60 Stunden	s.
An engen Rahmen beschäftigt (Männer)	9 bis 15	
An weiten Rahmen beschäftigt (Männer)	20 „ 30	
An Circulärrahmen (Frauen)	12 „ 20	
Mode-Strumpfwirkerarbeit und Unterzeug:		
Gewöhnliche Arbeiter (Männer)	14 „ 28	
Geschickte Arbeiter (Männer)	20 „ 35	

Die allgemeine Lage der Arbeiter in diesen Geschäften hat sich während der letzten Jahre sehr verbessert.

5. Der Werth der zu dieser Klasse gehörenden Fabricate, welche im Jahre 1865 in das Vereinigte Königreich eingeführt wurden, betrug:—

Strumpfwirkerarbeit, Baumwolle	70,502
„ „ Wolle	18,480
Corsets	8,890
Regen- und Sonnenschirme (Seide)	4,722
Stöcke	85,200

6. Der Werth der Britischen Hauptfabricate derselben Gattung, welche im Jahre 1865 exportirt wurden, betrug:—

Strumpfwirkerarbeit, Unterzeug, Handschuhe etc.:	£
Von Baumwolle	453,837
„ Leinwand	20,091
„ Seide	26,698
„ Wolle	307,782
Regen- und Sonnenschirme	160,177

7. Ein beträchtlicher Theil des Strumpfwirkergeschäfts wird durch Handarbeit ausgeführt, aber die Maschinenfabricate nehmen jährlich an Quantität, Qualität und Billigkeit zu.

Die Erweiterung der einheimischen Nachfrage nach den zu dieser Klasse gehörenden Fabricaten, sowie die Nachfrage in den Colonien, hat grosse Fortschritte und Verbesserungen in diesen Branchen der nationalen Industrie veranlasst. Eine der wichtigsten Errungenschaften in Nottingham ist vielleicht die Herstellung von vollkommen fertigen Strümpfen und Unterzeug durch Maschinerie. Auch in den Farben der Mode-Strumpfwirkerarbeit hat eine grosse Verbesserung stattgefunden.

Klasse XXXV.**KLEIDUNGSSTÜCKE FÜR BEIDE GESCHLECHTER.**

Es ist kaum nöthig zu bemerken, dass Kleidungsstücke aller Art, in grösserem oder geringerem Umfange, in jeder Stadt und jedem Dorfe des Landes producirt werden. Drei wichtige Industriezweige sind jedoch in dieser Klasse einbegriffen, nämlich die der Hut-, Stiefel- und Schuh Fabrication, welche, da sie an besonderen Orten betrieben werden, kurz erwähnt werden mögen. Was die den verschiedenen Professionen und Geschäften eigenthümliche Kleidung betrifft, so ist der Costümunterschied,

welcher bestimmte Klassen des Volkes kennzeichnet, mit wenigen Ausnahmen in England verschwunden. Die Nationaltrachten von Wales, Schottland und Irland werden bis zu einem gewissen Grade aufrecht erhalten, aber die allgemeine Neigung der mittleren und niederen Gesellschaftsklassen geht dahin, in Kleidungsstücken den Styl der höhern Klassen nachzuahmen, und der Hauptunterschied der Kleidung besteht in der Eleganz der Arbeit und Qualität der verarbeiteten Stoffe. In keinem andern Lande der Welt, Amerika vielleicht ausgenommen, kleiden die arbeitenden Klassen sich so gut und so kostspielig wie in dem Vereinigten Königreiche.

Hüte werden in London, in Manchester und dessen Umgegend und in andern Theilen von Lancashire, Cheshire, Edinburg, Glasgow etc. gemacht. Die Industrie des Strohflechtens, welche das Rohmaterial für Strohhüte liefert, wird hauptsächlich in St. Alban's, Dunstable, Tring und einigen andern Orten in England betrieben. Die Fabrication von Stiefeln und Schuhen findet in sehr grossem Umfange in Northampton, Norwich und Leicester statt. Sie umfasst ein specielles En-gros-Geschäft von genagelten statt genähten Fabricaten und giebt einigen Tausend Arbeitern Beschäftigung.

Die folgende Zahl von Personen war während des Jahres 1861 in einigen der Hauptbranchen der Fabrication von Kleidungsstücken beschäftigt:—

Geschäftszweige		In England und Wales	In Schottland	Irland
Schneider	{ Arbeiter	109,004	17,276	22,523
	{ Arbeiterinnen	27,386	473	932
	Summa	136,390	17,749	23,455
Putzmacher	{ Arbeiter	803	31	—
	{ Arbeiterinnen	286,298	33,066	50,854
	Summa	287,101	33,097	50,854
Hut- und Mützenmacher	{ Arbeiter	11,502	707	886
	{ Arbeiterinnen	7,911	1,697	719
	Summa	19,413	2,404	1,605
Strohhut- und Damenhutmacher	{ Arbeiter	1,740	313	15
	{ Arbeiterinnen	22,245	1,336	1,343
	Summa	23,985	1,649	1,358
Strohgeflechtmacher	{ Arbeiter	2,128	1	6
	{ Arbeiterinnen	27,739	30	162
	Summa	29,867	31	168
Stiefel- und Schuhmacher	{ Arbeiter	211,233	26,786	41,297
	{ Arbeiterinnen	39,358	2,093	5,329
	Summa	250,591	28,879	46,623

Die Zahl der mit der Fabrication von Stiefeln und Schuhen beschäftigten Arbeiterinnen schliesst die Frauen der Schuhmacher aus, welche in manchen Fällen ihren Männern bei einigen Arbeitsverrichtungen Hülfe leisten. Die Gesamtzahl von Schuhmacherfrauen wurde in Grossbritannien auf 90,790 veranschlagt.

Die Durchschnittslöhne, welche in dem Schuh- und Stiefelgeschäft in Leicester während des Jahres 1866 gezahlt wurden, betragen :—

	Per Woche von 60 Stunden	
	s.	d.
An Maschinenarbeiter (Frauen) .	12	0
Anpasser "	11	0
Nagler (Männer) .	22	0
Fertigmacher "	30	0
Zuschneider "	23	0

Fünzig Procent der Arbeit wird von weiblichen Arbeitern ausgeführt.

Neuere statistische Angaben über das Geschäft von Northampton sind nicht vorhanden, aber nach dem Census von 1861 waren in jenem Jahre ungefähr 20,000 Personen in dem Stiefel- und Schuhgeschäft beschäftigt.

Die an den unten erwähnten Orten in dem Hutgeschäft gezahlten Durchschnittslöhne betrugen im Jahre 1866 :—

Seidenhutmacher	In Bristol	In Edin- burg	In Glasgow
	Per Woche s.	Per Woche s.	Per Woche s.
Formmacher	25	33	34
Seidenfertigmacher .	25	30	36
Krämpenverfertiger (tippers off)	30	39	40
Arbeitsstunden per Tag .	8	12 bis 15	10

Der Werth der Einfuhr und Ausfuhr von Herren- und Damenhüten und von Stiefeln und Schuhen betrug im Jahre 1865 :—

Einfuhr.	
Hüte:	£
Von Stroh	556,065
„ Filz	35,812
Flechtstroh zu Hüten . .	102,886
Anderer Arten von Flechtwerk .	30,225
Stiefeln und Schuhe . . .	104,693
Ausfuhr (Englische Fabrication).	
Hüte:	£
Von Filz	280,851
„ Seide	25,909
„ Stroh	166,599
„ anderen Arten	10,235
Hutmacher-Waaren . . .	70,343
Flechtstroh etc.	49,996
Stiefeln und Schuhe . . .	1,462,105

Frankreich liefert den grössten Theil der eingeführten, und die Australischen Colonien sind die Hauptconsumenten der von England ausgeführten, Waaren.

Es besteht auch ein grosses Ausfuhrge- schäft von Kleidungsstücken und Schifferhosen aus dem Vereinigten Königreich, welches sich im Jahre 1865 belief auf :—

Kleidungsstücke, alte und neue	£ 1,933,000
Schifferhosen und Negerkleidung	706,000
	2,639,000

Etwa die Hälfte dieser Ausfuhr ging nach den Australischen Colonien.

Klasse XXXVI.

JUWELIERWAAREN UND KOSTBARE STEINE.

Die Fabrication von echten und falschen Juwelierwaaren im Vereinigten Königreich ist von grosser Bedeutung; der Sitz der ersteren ist hauptsächlich in London, der der letzteren in Birmingham. Bei der zunehmenden Wohlhabenheit der Bevölkerung war die Nachfrage nach dieser Klasse von Waaren während der letzten Jahre sehr gross. Berichte über die Production der höhern Arten von Juwelierwaaren sind nicht vorhanden. Der Werth des in dem Geschäft von Birmingham jährlich gebrauchten Goldes, Silbers und der kostbaren Steine wird auf etwa eine und eine Viertel Million Pfund Sterling veranschlagt. Die Zahl der Personen, welche in der Birming- hamer Branche des Geschäfts arbeiten, ist un- gefähr 7,500 und die Durchschnittslöhne von Juwelieren zwischen 25s. und 50s. wöchentlich und in einigen Fällen mehr. Emaillirer verdienen von 3l. bis zu 5l. wöchentlich; Knaben von 4s. bis 11s.

Die Zahl der gegenwärtig in dem Juwelier- geschäft von London beschäftigten Personen beträgt (mit Ausschluss der Gehülfen) :—

Juweliere	484
„ und Goldschmiede . .	159
Cisellirer	41
Juwelenkastenmacher . . .	36

Der Werth der im Jahre 1865 hauptsächlich von Frankreich und Belgien importirten Ju- welierwaaren betrug 87,981l. und der der kost- baren Steine (mit Ausschluss von Diamanten) 32,000l. Der Werth der während desselben Jahres exportirten Juwelierwaaren Britischer Fabrication betrug :—

	£
Juwelierwaaren etc. von Gold und Silber }	94,313
„ anderer Art	69,918
	164,231

Ein beträchtliches Steigen hat in dem Werthe kostbarer Steine während der letzten zwanzig Jahre stattgefunden.

Die in einigen Branchen des Juweliergeschäfts angewandte Maschinerie und Dampfkraft haben die Fabricanten in den Stand gesetzt, eine grosse Ermässigung in dem Preise der Waaren ein- treten zu lassen.

Mr. J. S. Wright, in einem Berichte über das Juweliengeschäft von Birmingham, sagt, es würde nicht recht sein, die Erwähnung der Thatsache zu vergessen, dass die in jener Stadt gegründete Kunstschule in hohem Masse zur Entwicklung des artistischen Talents unter den dortigen Juwelieren beigetragen habe. Viele Hundert Arbeiter sind daselbst gebildet worden. Die Wirkungen des empfangenen Unterrichts werden sich noch entschiedener in der Zukunft offenbaren.

Klasse XXXVII.

TRAGBARE WAFFEN.

1. Die Fabrication der kleineren Waffenarten wird in Enfield (der Regierungsfabrik), in Birmingham und in London betrieben. Bajonette, Flintenschlösser und Degen werden hauptsächlich in Birmingham gemacht, die Letzteren aus Stücken von Stahl, Degenklingenzaine oder Degenklingenschienen (sword-moulds) genannt, die in Sheffield fabricirt werden. Die grosse Masse der zur Ausfuhr bestimmten Feuerwaffen wird in Birmingham gemacht. Die Londoner Fabricanten sind berühmt für die vorzügliche Ausarbeitung von Büchsen und Jagdgewehren ersten Ranges. Sowohl die 'Birmingham Small Arms Association' als die 'London Armoury Company' machen Feuerwaffen für die Regierung.

2. Das für Flintenschnitte gebrauchte Holz ist Buchenholz, besonders aus Gloucestershire und Herefordshire, und Wallnussholz, welches aus Italien und Deutschland eingeführt wird. Die Zubereitung des zu der Fabrication der Flintenläufe gebrauchten Eisens erfordert ausserordentliche Sorgfalt, und die Arbeiter von Birmingham besitzen einen hohen Grad von Geschicklichkeit in der Fabrication desselben.

3. Die Zahl der Arbeiter, welche in der Regierungsfabrik beschäftigt werden, beträgt, wenn in voller Thätigkeit, etwa 2,000. Die Zahl der in Birmingham beschäftigten Arbeiter wird auf 7,000 veranschlagt. Das Londoner Geschäft gab im Jahre 1861 ungefähr 2,000 Personen Beschäftigung.

Die Gesamtzahl von Personen, welche als Flintenschmiede oder als Flintenfabricanten beschäftigt waren, betrug im Jahre 1861, nach den Angaben des Census:—

In England und Wales	11,873
Schottland	204
Irland	256
Summa	12,333

4. Nach einem Bericht der Handelskammer von Birmingham an das Handelsministerium standen die Durchschnittslöhne in dem Geschäft der Flintenfabrication im Jahre 1866 wie folgt:—

	Per Woche von 60 Stunden
	s. d.
Arbeiter, erwachsene	12 bis 60 0
„ Knaben	3 „ 15 0
Arbeiterinnen, erwachsene	6 „ 12 0
„ Mädchen	3 „ 4 6

Mr. Goodman, Vorsitzender der 'Birmingham Small Arms Company,' erklärte in einem Bericht an die 'British Association,' im Jahre 1865, man dürfe kaum bezweifeln, dass während der letzten zehn Jahre die in dem Flintengeschäft verdienten Löhne diejenigen sämtlicher andern Geschäfte übertroffen hätten, und dass die Arbeiter in einigen grosse Geschicklichkeit erfordernden Zweigen dieses Geschäfts, wenn sie in voller Thätigkeit sind, wöchentlich zwischen 5*l.* und 6*l.* verdienen.

5. Der Werth der Feuer- und Seitenwaffen aller Arten, welche im Jahre 1865 in das Vereinigte Königreich importirt wurden, betrug 243,699*l.*, wovon 192,000*l.* auf Belgien kamen. Die Gesamteinfuhr von Wallnussholz betrug 5,689 Tonnen und die von unpolirten Flintenschnitten 5,204 Centner. Mehr als acht und dreissig Millionen Zündhütchen wurden ebenfalls importirt.

6. Das Nachstehende ist der officiële Bericht über die Zahl und den Werth der kleineren Waffenarten Englischer Fabrication, welche während der fünf Jahre 1861–65 aus dem Vereinigten Königreich exportirt wurden:—

	Zahl	Werth £
1861	315,000	515,000
1862	702,000	1,573,000
1863	439,000	856,000
1864	254,000	348,000
1865	291,000	424,000

Die grosse Ausfuhr zu Anfang des obigen Zeitraums wurde durch die Nachfrage in den Vereinigten Staaten veranlasst. Mr. Goodman ist der Ansicht, dass die obigen Berichte den wahren Werth des Britischen Exportgeschäfts unterschätzen, da eine grosse Anzahl besonders kostspieliger Jagdflinten in's Ausland versandt wird, ohne dass man sie im Zollamte notirt.

Die Hauptarten der während des Jahres 1865 exportirten Feuerwaffen etc. waren:—

	No.
Musketen	173,153
Büchsen	85,322
Vogelflinten	15,505
Revolver	8,061
Pistolen	8,994
Degen, Säbel, Bajonette etc.	4,538
Zündhütchen	284,895

7. Maschinerie wird jetzt in der Fabrication aller Theile von Feuerwaffen angewandt und dadurch der Englische Fabricant in den Stand gesetzt, mit den Fabricanten fremder Länder erfolgreich zu concurriren, da sonst Letztere, wegen der ihnen zu Gebote stehenden billigen

Arbeit, im Stande sein würden, ihn von den verschiedenen Märkten der Welt zu verdrängen.

8. Die Verbesserungen, welche während der letzten Jahre in der Fabrication der kleineren Waffenarten stattgefunden haben, sind so allgemein bekannt, dass eine Hinweisung darauf an diesem Orte kaum nöthig ist. Die wichtigste neuere Verbesserung beim Laden ist die allgemeine Annahme des Schwanzschraubensystems (breech-loading).

Es giebt manche Branchen dieses Geschäfts, in welchen der Kunstarbeiter einen weiten Spielraum für seine Talente finden könnte, und in welchen die Englischen Fabricanten bereits einen beträchtlichen Grad von Geschmack entwickeln. Die Englischen Arbeiter, welche die gegenwärtige Ausstellung besuchen, werden jedoch wohl daran thun, sich durch die von den Pariser Flintenfabricanten ausgestellten Waaren, so berühmt wegen der künstlerischen Schönheit ihrer Verzierungen, belehren zu lassen.

Klasse XXXVIII.

REISE-APPARATE UND LAGERGERÄTH.

Die Fabrication von Koffern, Reisesäcken und andern in diese Klasse gehörenden Gegenständen bildet einen sehr wichtigen Industriezweig, über es fehlt an Mitteln, ihren wirklichen Umfang zu bestimmen. Neue Arten von Mantelsäcken, bestimmt, den Bedürfnissen der zahlreichen Klasse von Reisenden in unsern Tagen Genüge zu thun, erscheinen beinahe

täglich. Auch in der Ausarbeitung von Reisesäcken haben während der letzten zehn Jahre grosse Verbesserungen stattgefunden. Die Fabrication von Reise- oder Eisenbahndecken wird in Dewsbury und Huddersfield betrieben und ist gegenwärtig eine Hauptbranche des Wollgeschäfts geworden. Der Gebrauch von Zelten, mit Ausnahme der für die Zwecke des Ackerbaus benutzten, ist in dem Vereinigten Königreich sehr gering, und die Hauptfabrication beschränkt sich auf die Bedürfnisse der in fremden Ländern stationirten Heerestheile.

Klasse XXXIX.

SPIELWAAREN.

Viele Arten von Spielsachen (besonders Wachspuppen) werden in grosser Menge im Vereinigten Königreich producirt; aber wegen der Eigenthümlichkeiten des Spielwaarengeschäfts ist es unmöglich, den Werth der jährlichen Fabrication dieser Waaren zu bestimmen.

Die Zahl der Fabricanten, welche in London das Spielwaarengeschäft betreiben, ist:—

Spielwaarenmacher . . .	44
Spielwaarenhändler . . .	153
Puppenmacher . . .	19
Schaukelpferdmacher . . .	8

Das Einfuhrgeschäft mit fremden Spielwaaren hat seit dem Jahre 1850 sehr zugenommen, da es von 46,130*l.* in diesem Jahre auf 163,024*l.* im Jahre 1865 gestiegen war.

GRUPPE V.

(KLASSEN XL. bis XLVI.)

ROHE UND VERARBEITETE ERZEUGNISSE DER BERGBAU-
INDUSTRIE, WALDCULTUR ETC.

Klasse XL.

BERGBAU UND METALLURGIE.

1. DIESE Klasse umfasst die wichtigste Branche der einheimischen Production des Landes. Denn dass England eine so hervorragende Stellung als Fabrik-Staat erlangt hat, ist vor allem der Fülle seines Metallreichthums und dem glücklichen Umstände zuzuschreiben, dass Steinkohlen und Eisen in denselben Gegenden gewonnen werden. Auch die schnelle Entwicklung der Eisenbahnen und der Dampfschiffahrt lassen sich auf diese Ursache zurückführen. Die folgenden Daten über die Production von Mineralien und Metallen in dem Vereinigten Königreich während des Jahres 1865 sind den officiellen Berichten des Herrn Robert Hunt, Aufseher des Bergbau-Archivs, entlehnt:—

Steinkohlen-Production im Jahre 1865.

Wo gewonnen	Masse der Production
	Tonnen
Durham und Northumberland	25,032,694
Cumberland	1,431,047
Yorkshire	9,355,100
Derbyshire	4,595,750
Nottinghamshire	1,095,500
Leicestershire	965,500
Warwickshire	859,000
Stafford und Worcestershire	12,200,989
Lancashire	11,962,000
Cheshire	850,000
Shropshire	1,135,000
Gloucester, Somerset und Devon- shire	1,875,000
Monmouthshire	4,125,000
Süd-Wales	7,911,507
Nord-Wales	1,983,000
Schottland	12,650,000
Irland	123,500
Summa	98,150,587

Nach Abzug einer Ausfuhr von 9,000,000 Tonnen und von beinahe 29,000,000 Tonnen, die zur Fabrication von Roheisen und Eisenstangen gebraucht wurden, blieben ungefähr 60,000,000 Tonnen für einheimische Consumption, zu Haushalts- und andern Zwecken,

oder eine Durchschnittsmenge von mehr als 2 Tonnen auf jeden Bewohner des Landes. Die jährliche Durchschnittsmenge von Steinkohlen, welche in den mit dem Jahre 1865 endenden zehn Jahren producirt wurden, betrug 84,900,000 Tonnen.

EISENERZ.—Die Gesamtproduction dieses Erzes im Jahre 1865 betrug 9,910,000 Tonnen. Es wurde gewonnen in zwanzig Englischen Grafschaften, unter denen der North-Riding von Yorkshire, Cumberland und Staffordshire die grössten Quantitäten lieferten; und in Wales, Schottland und Irland.

ROHEISEN-FABRICATION.—Die Gesamtfabrication von Roheisen im Jahre 1865 betrug 4,819,000 Tonnen. Die nachstehende Tabelle zeigt die Hauptgegenden, wo die Fabrication stattfindet:—

Provinzen und Grafschaften	Zahl von Eisenwerken	Zahl von gebauten Oefen	Zahl von Hoch-oefen	Tönnen von producirtem Roheisen
England:				
S. Staffordshire	64	172	114	692,627
York: N. Riding	14	65	53	486,421
Durham	19	65	47	476,767
N. Staffordshire	8	35	27	206,268
Lancashire	6	24	16	204,925
Derbyshire	15	41	34	189,364
York: W. Riding	14	38	29	123,233
Shropshire	11	29	23	117,343
Cumberland	4	16	9	107,430
Andere Graf-schaften	21	42	24	134,489
Summa	176	527	376	2,738,867
Wales:				
Glamorganshire	18	81	64	408,416
Monmouthshire	10	68	45	357,656
Andere Graf-schaften	21	63	31	150,837
Summa	49	212	140	916,909
Schottland:				
Lanarkshire	15	101	84	1,163,478
Andere Graf-schaften	17	79	57	
Summa	32	180	141	

Die nachstehende Zahl von Eisenhämmern

und Schweissöfen war im Jahre 1865 mit der Herstellung fertigen Eisens beschäftigt:—

Provinzen und Grafschaften	Zahl von Werken	Zahl von Flammöfen	Zahl von Streckwerken
England:			
Süd-Staffordshire . .	118	2,116	224
Durham	16	688	61
Yorkshire	30	922	115
Andere Grafschaften .	34	903	113
Summa	189	4,629	513
Wales	39	1,395	170
Schottland	15	383	47
Summa	252	6,407	730

Berichte über die Gesamtproduction von *fertigem Eisen* in dem Vereinigten Königreich sind nicht vorhanden. Mr. J. Jones schätzte in einem Bericht an die 'British Association' in Birmingham, im Jahre 1865, die jährliche Production des Districts von Staffordshire auf 855,000 Tonnen, und die Production der mit den Kohlenlagern von Northumberland und Durham verbundenen Eisenwerke wird jährlich auf ungefähr 300,000 Tonnen veranschlagt.

Die Stahlfabrication wird in bedeutendem Umfang im Inlande betrieben, vorzugsweise in Sheffield und in Staffordshire und Northumberland; aber es fehlt an statistischen Angaben über den Gesamtbetrag der Production.

Nach einer allgemeinen Veranschlagung betrug während des Jahres 1862 in Sheffield die Production von Blasenstahl 79,000 Tonnen und die von Gusstahl 52,000 Tonnen.

BLEI.—Die Masse des zu Tage geförderten Erzes betrug 90,452 Tonnen und die Production von Blei 67,181 Tonnen. Blei wird in allen Theilen des Königreichs gewonnen; die grösste Masse wurde im Jahre 1865 aus den Minen in Durham und Northumberland zu Tage gefördert.

KUPFER.—198,298 Tonnen Erz wurden, hauptsächlich in den Grafschaften Cornwall, Devonshire und Cheshire, gewonnen; und 11,888 Tonnen Kupfer wurden während des Jahres 1865 in dem Vereinigten Königreich producirt.

ZINN.—Dieses Metall wird in Cornwall und Devonshire gefunden und die im Jahre 1865 gewonnene Masse von Zinnerz betrug 15,686 Tonnen. 10,039 Tonnen metallisches Zinn wurden in demselben Jahre producirt.

Auch Zink, Strahlenkies, kleine Quantitäten von Silber und Gold und verschiedene Arten mineralischer Erden producirt das Vereinigte Königreich, sowie Bausteine und Thon in grossen Quantitäten.

Salz wird gewonnen in Cheshire, in Worcestershire und in Irland. Die Salzwerke in Cheshire können jährlich 1,000,000 Tonnen produciren; die Production der Werke in Worcestershire beträgt ungefähr 200,000 Tonnen jährlich. In Irland findet die Salzproduction in verhältnissmässig geringem Masse statt.

Der Gesamtwerth der mineralischen Producte des Vereinigten Königreichs im Jahre 1865 wird angegeben wie folgt:—

	£
Metalle	15,773,000
Steinkohlen	24,538,000
Mineralische Erden	1,434,000
	41,745,000

Der Werth von Salz, Thon und Bausteinen ist in den obigen Zahlen nicht einbegriffen.

Es würde unmöglich sein, in dem beschränkten Raume, welcher diesen Bemerkungen gestattet ist, einen Umriss von den ebenso zahlreichen als wichtigen mit dieser Klasse verbundenen Geschäften zu geben. Wir können nur kurz erwähnen, dass die Eisenwaarengeschäfte hauptsächlich in Birmingham, Wolverhampton, Walsall und Sheffield ihre Mittelpunkte haben, die Bronze- und Kupfer-Fabrication in Birmingham und Bristol, plattirte Waaren in Sheffield und Birmingham, Nähnadeln und Angelhaken in Redditch, Stecknadeln in Birmingham, Drähte in Birmingham, Sheffield und Manchester und Schneidewaaren in Sheffield.

2. Die in der Britischen Metall-Fabrication benutzten Rohmaterialien werden hauptsächlich aus einheimischen Quellen bezogen. Ansehnliche Massen von Mineralien und Metallen werden jedoch jährlich importirt. Die beigefügte Tabelle zeigt die Massen der Hauptarten, welche im Jahre 1865 importirt wurden:—

Gegenstände	Quantitäten
	Tonnen
Kupfererz	82,562
Kupfer-Regulus	39,686
Kupfer, unverarbeitet und theilweise verarbeitet	21,717
Eisenerz	76,977
Roheisen	11,380
Stangeneisen	51,464
Stahl	6,777
Bleierz	5,584
Rohblei und Plattenblei	34,903
Silbererz	6,587
Zinnerz	639
Zinnblöcke, Stangen etc.	5,698
Zink, in Kuchen	22,193
„ gerollt	8,492

Chili lieferte den grössten Theil von Kupfererz und Regulus, Spanien, Frankreich und Schweden das Eisenerz, Schweden Roheisen, Stangeneisen und Stahl, Italien Bleierz, Spanien Rohblei und Plattenblei, die Holländischen Colonien in dem Ostasiatischen Archipelagus Zinn. Zink wurde hauptsächlich aus Belgien, Holland, Hamburg und Preussen importirt.

3. Die Zahl der Arbeiter, welche während des Jahres 1865 in den Kohlenbergwerken des Vereinigten Königreichs beschäftigt waren, wird auf 315,000 veranschlagt. Die an erwachsene Bergleute und Kohlenhauer ('hewers') gezahlten Durchschnittslöhne betrugen im Jahre 1866 in Newcastle 5s. 9d. per Tag von 7 Stunden. Die

Arbeiterlöhne in andern mit dem Kohlenbergbau verbundenen Beschäftigungen schwankten zwischen 3s. und 5s. per Tag, für Knaben zwischen 1s. und 3s. per Tag. Der Reinverdienst in dem Eisengeschäft von Staffordshire wird im Grossen und Ganzen zu 28s. bis 30s. per Kopf wöchentlich veranschlagt, obschon einige Arbeiter von 2l. bis 4l. verdienen. In Glasgow erhielten erwachsene Eisengiesser im Jahre 1866 29s. per Woche von 60 Stunden; Knaben, 4s. bis 16s.; für andere Beschäftigungen in Eisenhütten, 15s. bis 25s. In dem Schmiedegeschäft von Birmingham: Grobschmiede und Weisschmiede, 24s.; Modellverfertiger, 33s., und Ingenieur-Tischler, 30s. per Woche von 58 Stunden. Schlosser für Kunstschlechterarbeit, 40s. In dem Schneidewaarengeschäft von Sheffield, im Jahre 1866: Schmiede, 31s. bis 36s.; Hämmerer, 21s. bis 24s.; Schleifer, 45s. bis 50s., und Metallhärter, 24s. bis 28s., per Woche von 42 Stunden. Officielle Berichte über die Zahl der in den obigen Geschäften arbeitenden Personen sind nicht vorhanden, und bei der Verschiedenheit der damit verknüpften Beschäftigungen ist es kaum möglich, eine genaue Veranschlagung zu machen. Die Gesamtzahl der Personen, welche in Verbindung mit der Bergbau- und Metallarbeit während des Jahres 1861 in dem Vereinigten Königreich beschäftigt waren, betrug ungefähr $1\frac{1}{4}$ Million. Die Lage der Bergleute erfreut sich gegenwärtig eines weit lebhafteren Interesses seitens der Arbeitgeber, als früher der Fall war, und die grosse Menge der Grubenbesitzer und Metallfabricanten ist bemüht, nicht allein den Gesundheitszustand ihrer Arbeiter zu bessern, sondern thut auch viel, die Erziehung ihrer Kinder und die Wohlfahrt ihrer Familien im Allgemeinen zu befördern.

4. Der Gesamtwert der während des Jahres 1865 in das Vereinigte Königreich importirten Metallfabricate betrug weniger als eine halbe Million Pfund Sterling. Die Hauptmasse der Einfuhr bestand aus Eisenwaaren, hauptsächlich aus Belgien und Holland.

5. Die nachstehende Tabelle zeigt die Quantität der in diese Klasse gehörenden Hauptgegenstände Britischer Production, welche im Jahre 1865 aus dem Vereinigten Königreich exportirt wurden:—

Gegenstände	Quantitäten
Steinkohlen und Coke . . Tonnen	9,170,000
Kupfer und Fabricate . . Centner	632,000
Messing "	44,000
Eisenwaaren £	3,924,000
Eisen—Roheisen . . . Tonnen	547,000
„ Stangen Eisen "	254,000
„ Eisenbahn- "	434,000
„ Andere Arten und Waaren }	357,000
Stahl "	24,000
Blei "	27,000
Plattirte Waaren £	112,000
Salz Tonnen	579,000
Zinn Centner	104,000
Zinnplatten £	1,481,000
Zink Centner	89,000

Der Gesamtwert der obigen Gegenstände überstieg 28 Millionen Pfund Sterling.

6. Es ist nicht möglich, die Abtheilungen der obigen Geschäfte, welche durch Handarbeit, und die, welche durch Maschinen betrieben werden, zu unterscheiden. Die allgemeine Tendenz ist jedoch, Maschinen an die Stelle der Handarbeit zu setzen, wo dies irgend ausführbar ist.

7. Von dem Fortschritt in der Bergbauindustrie des Vereinigten Königreichs seit der letzten Pariser Ausstellung mag die vermehrte Production von Mineralien und Metallen während des Jahres 1865, im Vergleich mit derjenigen des Jahres 1855, eine Vorstellung geben. Die Steinkohlenproduction nahm während des genannten Zeitraums 59 Procent zu; die von Roheisen, 50 Procent; die von Zinn, 66 Procent; die von Blei, 3 Procent, während die von Kupfer 44 Procent abnahm.

Grosse Verbesserungen haben seit dem Jahre 1851 in der Britischen Eisenwaarenfabrication stattgefunden, von denen die meisten, wenn nicht alle, direct oder indirect auf die Industrie-Ausstellung zurückgeführt werden können, welche während jenes Jahres in London gehalten wurde. Das durch die Ausstellung, begonnene Werk wurde von dem Departement für Wissenschaft und Kunst fortgeführt, und in Folge localer Ausstellungen und des Unterrichts localer Kunstschulen, welche in den Mittelpunkten der Fabrikdistricte gegründet wurden, hat sich in Zeichnung und Styl der Englischen Waaren ein gewaltiger Fortschritt geltend gemacht.

Die Jury über Eisenwaaren in der Ausstellung von 1862 berichtete: 'Es ist erfreulich, erklären zu können, dass in einer oder der andern Beziehung eine Verbesserung in beinahe sämtlichen ausgestellten Gegenständen bemerkbar ist. Die billigen Fabricate zeigen eine grössere Nettigkeit und Regelmässigkeit der Form. Diejenigen Gegenstände, welche zugleich nützlich und ornamental sind, bekunden grössere Angemessenheit der Verzierungen, und ein höherer Massstab der Kunst ist in der ornamentalen Metallarbeit für Decorationen in Häusern und Kirchen erreicht worden.'

Klasse XLI.

PRODUCTE DER WALDCULTUR UND DER DAZU GEHÖRENDE GEFÄHRTSZWEIGE.

Im Vergleich mit den Wäldern anderer Länder sind die des Vereinigten Königreichs von geringem Umfang. Der jährliche Werth der Production von Bauholz und anderen Holzarten wird auf zwei Millionen Pfund Sterling geschätzt. Die Eiche, obgleich nicht am reichlichsten vorhanden, ist der wichtigste und werthvollste der Englischen Bäume und wird in bedeutendem Umfang in den königlichen Forsten cultivirt.

Die einheimische Production von Bauholz

ist weit unter der Nachfrage, und eine grosse Einfuhr findet jährlich vom Auslande statt. Auch viele andere nicht in England gewonnene Producte der Waldcultur werden in ungeheurer Menge verbraucht. Die folgende Tabelle zeigt die hauptsächlichsten Artikel dieser Art, welche im Jahre 1865 importirt wurden:—

Gegenstände	Quantitäten
Perl- und Pottasche . . . Centner	144,000
Baumrinde zum Gerben oder Färben }	431,000
Kork	122,000
Korke, fertig geschnitten . . . Pfund	2,012,000
Galläpfel Centner	16,000
Sumach Tonnen	13,000
Terra Japonica	16,000
Valonia	20,000
Brennholz und Bauholz: Nicht gesägt oder gespalten, mit Einschluss von Teak . . . Ladng.	1,686,000
Balken, Latten etc., gesägt oder gespalten }	2,136,000
Stäbe	67,000
Brennholz	180,000
Reifen	8,000
Lattenholz	105,000
Färbeholz Tonnen	44,000
Hartholz	68,000

Der Gesammtwerth der obigen Artikel betrug 15,888,000/. Sterling. Eine kleine Quantität fremden Bauholzes wird rückexportirt; aber dieselbe ist nicht von hinreichender Bedeutung, um erwähnt zu werden.

Perl- und Pottasche werden hauptsächlich von den Englischen Colonien in Nord-Amerika geliefert, Baumrinde von Belgien und Holland, Kork von Portugal, fertig geschnittene Korke von Frankreich, Spanien und Portugal, Galläpfel von China, Indien und der Türkei, Brennholz und Bauholz von dem Englischen Nord-Amerika und den Ostseeländern, Teak von Indien und Singapore, Cedern von Cuba, und Mahagoni von Central-Amerika und den Vereinigten Staaten.

Klasse XLII.

PRODUCTE DER JAGD, DES FISCHFANGS UND DES EINSAMMELNS VON FRÜCHTEN, WELCHE OHNE BODENCULTUR GEWONNEN WERDEN.

Verschiedene in diese Klasse gehörende Gegenstände, wie Hasen-, Kaninchen- und andere Felle, Federn, Horn, Knochen, Wachs etc., werden in dem Vereinigten Königreich producirt; aber es fehlt an Mitteln, den Umfang ihrer Production zu bestimmen. Die Zufuhr von Fischöl und Fischbein hat in den letzten Jahren abgenommen, grossentheils wegen der Entdeckung von Materialien, welche man besser geeignet fand für die Zwecke, zu welchen die älteren Gegenstände angewandt wurden.

Ogbleich viele der wichtigsten in diese Klasse gehörenden Gegenstände nicht im Inlande pro-

ducirt werden, werden sie doch stark consumirt. Die folgenden Zahlen zeigen die Quantitäten der hauptsächlichsten fremden Producte der Jagd, des Fischfangs etc., welche im Jahre 1865 in das Vereinigte Königreich eingeführt wurden:—

Baumrinde, gelbe Ameri- kanische Eichen- } Centner	24,954
Baumrinde, für Gerber }	405,856
Knochen für Fabrikzwecke . . . Tonnen	8,666
Borsten Pfund	2,566,000
Kork, ungeschnitten . . . Tonnen	6,103
Federn, zu Betten . . . Centner	13,493
„ zur Verzierung . . . Pfund	54,211
Nüsse, Cocos- . . . Anzahl	2,545,000
„ gemahlene . . . Tonnen	1,939
Gummi Centner	182,000
Caoutchouc	71,392
Gutta-Percha	29,077
Haar, Kuh-, Ochsen-, } Pferde- etc. }	74,851
Hörner Tonnen	3,678
Hausenblase Centner	2,764
Oel, Thran- Tonnen	10,005
„ Wallrath-	2,438
Gänsefedern Anzahl	10,949,000
Colophonium Centner	459,000
Häute, Kaninchen- . . . Anzahl	1,059,000
„ Hirsch-	92,000
„ Ziegen-	2,797,000
„ Zicklein-	330,000
„ Lamm-	708,000
„ Schaf-	4,300,000
„ Seehund-	529,000
Elfenbein, Elefanten- } zähne }	Centner 10,268
Elfenbein, vegetabilisches . . .	22,313
Schildpatt Pfund	39,288
Wachs, Bienen- Centner	10,600

Die obigen Zahlen beziehen sich auf das ganze Einfuhrgeschäft; in einigen Fällen findet eine ansehnliche Rückausfuhr statt.

Klasse XLIII.

PRODUCTE DES ACKERBAUES, WELCHE NICHT ALS NAHRUNGSMITTEL GEBRAUCHT WERDEN UND SICH LEICHT AUFBEWAHREN LASSEN.

Die hauptsächlichsten, in dem Vereinigten Königreich producirt Gegenstände, welche in diese Klasse gehören, sind roher Flachs und Wolle, Samenöl und Eichenrinde. Die Production der beiden ersten Gegenstände ist in den Klassen 28 und 30 erwähnt; aber es fehlt an Mitteln, den Umfang der Production von Eichenrinde in England zu bestimmen. Was die von Samenöl betrifft, so sind keine Berichte über seine Zubereitung für häusliche und andere Zwecke vorhanden. Eine bedeutende Masse wird jedoch aus dem Vereinigten König-

reich exportirt. Im Jahre 1865 wurden nicht weniger als elf Millionen Gallonen, zu einem Werthe von etwa 1,547,000*l.*, von England versandt; aber diese Quantität wurde nicht aus Britischen Samen allein verfertigt, da alljährlich grosse Massen von Samen eingeführt werden, um Oel daraus zu gewinnen. Im Jahre 1865 wurden 1,697,000 Quart Leinsamen, Rapssamen und andere Arten von Oelsamen importirt. Ausser der einheimischen Production von Eichenrinde etc. werden grosse Massen von Gerbematerialien importirt. Im Jahre 1865 waren die Hauptgegenstände dieses Einfuhrgeschäfts:—

	Tonnen
Baumrinde, für Färber oder Gerber	20,292
Cutch	2,120
Gambier	13,588
Valonia	19,702
Dividivi	3,711
Sumach	13,045

Die Einfuhr von Samenöl, hauptsächlich von Frankreich, Holland und Hamburg, belief sich während desselben Jahres auf 12,811 Tonnen, zu einem Werthe von 695,000*l.*

Klasse XLIV.

CHEMISCHE UND PHARMACEUTISCHE PRODUCTE.

Die Fabrication chemischer Producte macht einen der Hauptindustriestämme des Landes aus und ist von Wichtigkeit nicht bloss, weil sie ein unabhängiges Geschäft von beträchtlichem Umfang bildet, sondern auch in Zusammenhang mit den verschiedenen einheimischen Fabricationsmethoden, bei welchen eine so grosse Menge chemischer Producte angewandt wird. Die Hauptsitze dieser Industrie sind in der Umgegend von Newcastle, Liverpool, Glasgow, Bristol und Birmingham. Chemicalien werden ebenfalls in andern Theilen von Lancashire und in den mittleren und südlichen Grafschaften von England producirt. Die Fabrication der andern in diese Klasse gehörenden Gegenstände ist so weit verbreitet, dass es schwer ist, besondere Orte als Mittelpunkte anzuführen. Was die Fabrication von Seife und Lichtern betrifft, so werden die gewöhnlichen Arten in beinahe sämtlichen grossen Städten des Königreichs gemacht. Seife wird in grosser Menge producirt; während des Jahres 1862, ein Jahr vor der Abschaffung der Accisesteuer auf Seife, wurde jene Steuer auf circa 203 Millionen Pfund harter und 21 Millionen Pfund weicher Seife in dem Vereinigten Königreich erhoben. Seit der Abschaffung der Steuer hat man sich keine zuverlässigen Berichte über die Production verschaffen können, obgleich man weiss, dass sie beträchtlich zugenommen hat. So lange die Accisesteuer auf der Seifen-Production lastete, geschah wenig, sie zu verbessern und billiger zu machen, aber seit der

Abschaffung der Steuer ist ein hoher Grad chemischer Kenntniss diesem Gegenstande zugewandt worden, und Seife, welche früher eine Steuer von 3*d.* auf das Pfund würde zu zahlen gehabt haben, wird jetzt für 2*d.* das Pfund verkauft. Grosse Verbesserungen haben in der Production verschiedener Arten von parfümirten und Modeseifen stattgefunden, und die Consumption derselben ist beträchtlich. Diese Modeseifen werden in grosser Menge in London und einigen andern grossen Städten Englands fabricirt.

Was die Lichterfabrication angeht, so wird das Talglichtgeschäft in fast sämtlichen Städten des Landes betrieben und giebt vielen Hundert Arbeitern Beschäftigung. Die Fabrication anderer Lichterarten, wie Wachs- und Sperm-, findet hauptsächlich in grossen Städten statt; und die von Stearin-, Paraffin- und Composite-Lichtern etc. ist, mit Ausnahme zweier Fabriken in Schottland und einer in Irland, ganz auf London und dessen Umgegend beschränkt. Berichte über die Zahl der gegenwärtig mit der Lichterfabrication beschäftigten Personen sind nicht vorhanden. Nach dem Census von 1861 war die folgende Anzahl in den verschiedenen Theilen Grossbritanniens damit beschäftigt:—

Talglichtzicher.

	Arbeiter	Arbeiterinnen	Gesamtsumme
In England und Wales	4,467	219	4,686
Schottland	298	25	323
	4,765	244	5,009

Seit der Einführung von Paraffinlichtern hat sich das Geschäft bedeutend verbessert und erweitert. Messrs. Field, welche Aussteller in dieser Klasse sind, führten diese Art Lichter zuerst, im Jahre 1857, ein und haben seitdem grosse Verbesserungen in ihrer Fabrication bewirkt, von welchen die neueste in einer Methode zum Selbstanpassen der Lichter besteht. Die Hauptvorzüge von Paraffinlichtern sind: Völlige Freiheit von Fett, die Production eines reinen und schönen Lichtes, von hoher Leuchtkraft, und Billigkeit des Preises, wenn man ihre guten Eigenschaften in Anschlag bringt. Paraffin ist seiner Natur nach im Stande, alle Arten von Farben anzunehmen, ohne dadurch etwas von seiner Leuchtkraft einzubüssen.

Die Fabrication von Gummi und Gutta-Percha hat während der letzten zehn Jahre bedeutend zugenommen und wird in vielen Theilen des Königreichs in grossem Umfang betrieben. Auch in der Production von Farbstoffen und Farben ist während desselben Zeitraums ein grosser Fortschritt gemacht worden. Alaun, welches einen ziemlich wichtigen Handelsartikel bildet, wird reichlich producirt in Whitley, in Yorkshire. Phosphor wird in grossen Quantitäten von Messrs. Albright und Wilson, in Oldbury, gemacht. Die Production von mineralischen und andern Wasserarten wird in vielen Theilen von England betrieben

und gab im Jahre 1866 1,501 Arbeitern und 98 Arbeiterinnen Beschäftigung.

Da officiële statistische Angaben über die Industrieproducte von England nicht vorhanden sind, ist es unmöglich, die Gesamtzahl der Personen zu bestimmen, welche in den verschiedenen, zu dieser Klasse gehörenden, Geschäften arbeiteten. Die Gesamtzahl chemischer Fabricanten in Grossbritannien betrug nach dem Census von 1861:—

	Arbeiter	Arbeiterinnen	Summa
In England und Wales	7,505	243	7,748
Schottland . . .	1,253	50	1,303
Summa . . .	8,758	293	9,051

Die wichtigste Industrie in dieser Klasse ist die des Alkaligeschäfts, welche die vereinten Industrien von kohlenisaurem Natrium, Schwefelsäure, Wasserchlorsäure und Bleiche-Agentien umfasst; und da diese Industrie jetzt unter der Aufsicht der Regierung betrieben wird, so geben die Berichte über die Masse von zersetztem Salz einen Massstab für den Umfang und die Zunahme des Geschäfts. Zur Zeit des Englisch-Französischen Handelsvertrags von 1860 wurde die zur Fabrication von Alkali in England verbrauchte Quantität von Salz durch die Vertreter des Geschäfts auf ungefähr 250 Tonnen jährlich veranschlagt. Der erste Bericht des Alkali-Inspectors schätzt die im Jahre 1864 verbrauchte Quantität auf ungefähr 300,000 Tonnen, und der zweite Bericht, vom Jahre 1865, auf 350,000 Tonnen, oder eine Zunahme von dreissig Procent in fünf Jahren. Genaue Berichte über die aus dieser Zersetzung gewonnenen Producte sind nicht vorhanden, aber Veranschlagungen sind häufig gemacht worden.

So veröffentlichte die Jury in Klasse 2 der Ausstellung von 1862 einige von Mr. C. Allhusen mitgetheilte interessante Thatsachen über das Alkaligeschäft des Vereinigten Königreichs, woraus sich ergab, dass sich die Production desselben bereits im Jahre 1852 belief auf:—

	Tonnen	Werth £
Alkali	71,193	711,930
Crystallisirte Soda . . .	61,044	305,220
Bicarbonat von Natrium . .	5,762	86,430
Bleichpulver	13,100	131,000
	151,099	1,234,580

Die Zunahme des Geschäftszwischen den Jahren 1852 und 1861 wird angegeben wie folgt:—

	1852 (Herr Allhusen's Bericht)	1861 (Herr Gossage's Bericht)
	Tonnen	Tonnen
Alkali	71,193	56,000
Crystallisirte Soda . . .	61,044	104,000
Bicarbonat von Natrium . .	5,762	113,000
Bleichpulver	13,100	20,000

Herr Gossage veranschlagte den Gesamtwert der Producte im Jahre 1861 auf mehr als zwei Millionen Pfund Sterling und die Zahl der Arbeiter, welche in ungefähr fünfzig Etablissements beschäftigt wurden, auf 10,000.

Die folgende Tabelle zeigt die Production der beiden Haupt-Alkali-Districte im Jahre 1861:—

	Newcastle-upon-Tyne	Lancashire (nach dem Bericht der Herren Shunk, Smith und Roscoe)
	Tonnen	Tonnen
Alkali	35,000	93,600
Crystallisirte Soda . . .	82,000	8,840
Bicarbonat von Natrium . .	12,000	11,700
Bleichpulver	11,400	8,060

Mr. E. K. Muspratt, der Ehrensecretair des Lancashire-Zweiges der 'Alkali Manufacturers Association,' erklärt, dass, nach den Berichten der Fabricanten in jenem District, die gegenwärtige Masse des jährlich zersetzten Salzes ungefähr 170,000 Tonnen beträgt, oder mehr als fünfzig Procent von dem gesammten Geschäfte des Königreichs.

Die Quantitäten der nachstehenden, im Jahre 1866 in dem westlichen oder Lancashire-District gewonnenen, Fabricate betragen:—

	Tonnen
Aschensalz	81,800
Aetzsoda	11,500
Crystallisirte Soda . . .	23,000
Doppelt-kohlensaure Soda . .	6,400
Schwefelsäure Soda, verkauft } als schwefelsaures Salz	24,600
Bleichpulver	17,500

Der veranschlagte Werth der obigen Fabricate war nach den laufenden Preisen 1,726,200£.

Ausser den in diesem District fabricirten Alkalien wurden auch grosse Quantitäten von Schwefelsäure (18,000 Tonnen) und Hydrochlorsäure (14,000 Tonnen) im Jahre 1866 producirt. Die Quantitäten vieler andern Producte sind nicht ermittelt worden, aber der Gesamtwert der chemischen Production des Districts kann auf ungefähr zwei Millionen Pfund Sterling geschätzt werden.

Der Ertrag der Tyne-Branche des Alkaligeschäfts wird gegenwärtig (Februar 1867) von Herrn Cail angegeben wie folgt:—

	Quantitäten	Werth £
	Tonnen	£
Crystallisirte Soda . . .	86,000	473,000
Sodaasche	74,000	814,000
Doppeltkohlensaure Soda . .	11,000	198,000
Schwefelsäure Soda . . .	2,400	10,200
Bleichpulver	27,000	278,000
Epsom-Salz	590	4,720
Aetzsoda, 70 %	3,720	96,720
Glaubersalz	20	135
Vitriolöl, zum Verkauf . .	9,000	36,000
Schwefelsaures Kupfer . .	200	5,200
Salzsäure	700	2,100
Unterschwefelsäure Soda . .	400	7,200
Salzsaure Braunstein . . .	300	4,550
Summa	216,330	1,929,825

Die zwei grössten Verbesserungen in der Alkali-Industrie waren während der letzten Jahre die vermehrte Production von Aetzsoda und die von Bleichpulver, welche in grossem Umfange von Papierfabricanten, für die Zubereitung von Esparto-Gras, als eines Substituts für Lumpen, gebraucht werden.

Der Abschaffung der Accisesteuer auf Salz, Glas, Seife und Papier verdankt das Alkali-geschäft von England seine grosse Entwicklung und Vervollkommenng.

Ueber die Fabrication anderer Arten chemischer Producte sind keine Berichte vorhanden; aber sie werden in verschiedenen Theilen des Landes in grossem Umfange hergestellt.

Neben der einheimischen Production von Rohmaterialien, welche zu der Fabrication der in diese Klasse gehörenden Gegenstände benutzt werden, findet eine beträchtliche Einfuhr vom Auslande statt, wie aus der nachstehenden Tabelle erhellen wird, welche die Einfuhr in das Vereinigte Königreich während des Jahres 1865 angiebt:—

Gegenstände	Quantitäten
Alkali:	
Barilla	Centner 15,762
Perl- und Pottasche	„ 143,779
Flüssiges Ammoniak	Pfund 11,334
Andere Arten	Centner 19,352
Alaun	„ 10,890
Annatto, Brasilisch und }	„ 3,647
Cayenne	„ 20,004
Weinstein	„ 20,004
Balsam:	
Capivi	Pfund 230,508
Peru	„ 17,626
Nicht aufgezählt	„ 46,240
Baumrinde:	
Peruvianische	Centner 15,510
Gelbe Amerikanische	„ 24,954
Beeren, gelbe	„ 5,184
Boraxsäure	„ 20,627
Borax	„ 6,209
Schwefel	„ 981,106
Kampfer:	
Nicht raffiniert	„ 10,430
Caoutchouc	„ 71,392
Cochenille	„ 24,260
Weinsteinrahm	„ 49,165
Schwanzpfeffer	Pfund 53,443
Dividivi	Tonnen 3,711
Gambier	„ 13,588
Harz:	
Copal	Centner 8,607
Benzoin	„ 1,883
Gummi-Arabicum	„ 46,032
Färbelack (lac-dye)	„ 11,673
Shellac	„ 46,032
Mastix	„ 1,860
Gutta-Percha	„ 29,077
Indigo	„ 66,506
Salap	Pfund 166,761
Grapp	Centner 88,033
Wurzel	„ 147,482
Munjeet	„ 1,837
Garancine	„ 33,571

Gegenstände	Quantitäten
Braunstein	Tonnen 46,478
Naphtha	Gallonen 238,360
Natron	Centner 1,020,383
Oel:	
Thran	Tonnen 10,005
Spermaceti	„ 2,438
Cocosnuss	Centner 190,228
Palm	„ 798,724
Terpentin	„ 112,129
Felsöl oder Petroleum:	
Nicht raffiniert	Fässer 5,662
Raffinirt	Gallonen 2,112,831
Orchal	Centner 34,298
Paraffin	„ 8,556
Pottasche:	
von blausaurem Salz	Pfund 936,298
von schwefelsaurem Kali	„ 1,421,102
von doppelt-chromsaurem Salz	„ 183,352
von salzsaurem Salz	Centner 49,567
Strahlenkies von Eisen oder Kupfer (pyrites) }	Tonnen 193,626
Chinin, schwefelsaures	Unzen 364,089
Salpeter	Centner 311,390
Sarsaparilla	Pfund 472,968
Senna	„ 749,389
Schmalte	Centner 1,300
Stearin	„ 9,298
Talg	„ 1,361,248
Weinsteinsäure	Pfund 299,810
Terpentin	Centner 44,428
Ultramarin	„ 27,512
Mineralische Wasser	Gallonen 83,580
Bienenwachs	Centner 10,678
Vegetabilisches Wachs	„ 3,079

Est ist jedoch in Anschlag zu bringen, dass in einigen Fällen ein grosser Theil dieser Gegenstände zurück exportirt wird.

Die Durchschnittslöhne, welche den Arbeitern in mehreren der Hauptbranchen der chemischen Fabricate des Landes gezahlt werden, betragen, nach den Berichten der Handelskammern von Newcastle und Bristol an das Handelsministerium, im Jahre 1866:—

	In Newcastle per Tag von 10 Stunden	In Bristol per Tag von 10½ Stunden
	s. d.	s. d.
Verfertiger von Schwefelsäure	4 6	3 6
„ „ schwefelsaurer Soda	4 8	4 8
„ „ roher Soda	4 6	4 0*
„ „ kohlsaurer Soda	4 6	4 8
„ „ crystallisirter Soda	3 8	3 0
„ „ doppelt-kohlensaurer Soda	3 8	—
„ „ Bleichpulver	5 2	4 0*
„ „ Aetzsoda	—	4 0
„ „ Chlorcalcium	—	3 0
„ „ Salmiac	—	4 0

* Acht Stunden per Tag.

Die in dem Seifensiedergeschäft gezahlten wöchentlichen Durchschnittslöhne betragen

während des Jahres 1866 an den drei nachstehenden Orten:—

	In Bristol	In Edinburgh	In Glasgow
Seifensieder	40s.	25s.	36s.
Gehülfen	16s. 6d.	15s. bis 19s.	18s.
Küfer	18s. bis 20s.	15s.	12s. bis 18s.

In dem Paraffinlichtergeschäft beträgt der Durchschnittslohn der Hauptarbeiter ungefähr 30s. bis 42s. per Woche, zehn und eine halbe Arbeitsstunden per Tag.

Die Ausfuhr der hauptsächlichsten Arten von Englischen chemischen Producten, Seife, Lichtern etc. betrug im Jahre 1865:—

		Quantitäten	Werth
Alkali:			
Aetzsoda, Soda- asche und raffi- nirtes Alkali	Centner	1,799,637	£ 842,170
Crystallisirte Soda	„	641,442	199,376
Doppelt-kohlen- saure Soda	„	131,715	82,400
Alaun	„	75,166	26,885
Anilin, Färbestoffe	Pfund	41,165	1,914
Schuhschwärze	„	—	20,674
Bleiche-Materialien	Centner	220,140	117,148
Borax, im Ver- einigten Königreich raffinirt	„	16,897	46,440
Schwefel	„	57,795	31,783
Lichter:			
Stearin	Pfund	3,222,585	110,575
Andere Arten	„	403,833	12,973
Caoutchouc-Fabricate	£	—	475,700
Kupferose	Centner	79,420	47,721
Apothekerwaaren und chemische Producte:			
Arzneien	£	—	477,026
Unaufgezählte, gebraucht zum Färben und andern der Indu- strie und Kunst dienenden Pro- cessen	„	—	442,239
Epsom- und Glau- bersalze und Salz- kuchen	Centner	153,648	33,986
Blei, rothes	„	68,452	78,890
„ weisses	„	66,763	91,267
Holz- und Wachs- feuerzeug	£	—	104,755
Naphtha, Paraf- finöl, Petroleum etc.	Gallonen	1,907,032	236,624
Malerfarben und sonst nicht auf- gezählte Materia- lien	£	—	473,051
Parfümerien	„	—	94,351
Steinsalz und weisses Salz	Tonnen	579,050	274,631
Salpeter	Centner	59,938	93,547
Seife	„	140,241	184,279
Stärke	„	16,445	26,261
Terpentinöl oder Spiritus und Sub- stitute für Ter- pentin	Gallonen	88,713	22,105

Die Ausfuhr von Alkali und Soda hat während der letzten zehn Jahre beträchtlich zugenommen. Im Jahre 1866 wurden nur 1,405,000 Centner exportirt, im Jahre 1865 2,572,000 Centner.

Der Fortschritt in der Production chemischer Fabricate hat während der letzten Jahre Schritt gehalten mit der vermehrten Nachfrage, und, wie eben mit Bezug auf die wichtige Klasse der Alkalien bemerkt wurde, ist auch der auswärtige Handel, abgesehen von der Befriedigung der vermehrten Bedürfnisse der einheimischen Fabricanten, bedeutend erweitert worden. Grosse Verbesserungen haben in den zur Fabrication von Schwefelsäure und anderer Chemicalien angewandten Processen, und vorzugsweise in der Verdichtung von chlorwasserstoffsäurem Gas, in den Alkali-Fabriken stattgefunden. Auch in dem Phosphorgeschäft ist ein bedeutender Aufschwung bemerkbar geworden; statt Phosphor zu importiren, wie noch vor wenigen Jahren der Fall war, concurriren die Englischen Fabricanten jetzt erfolgreich mit den fremden Fabricanten in den meisten festländischen Märkten. Die Verbesserungen in der Seifen- und Lichter-Fabrication sind, in Folge vieler neuen Entdeckungen, sehr bedeutend gewesen, und die Entdeckung von Anilin und ähnlichen Färbestoffen hat einen sehr ausgedehnten Handel mit diesen Gegenständen veranlasst. Die Anwendung von Gummi zu unzähligen Zwecken des Geschäfts und des Haushalts hat auch einer ausnehmlichen Klasse von Arbeitern zu Beschäftigung verholfen. Die Betrachtung der in dieser Klasse ausgestellten Gegenstände wird jedoch eine bessere Vorstellung geben von der Bedeutung der verschiedenen mit ihr verknüpften Industriezweige, als dies in dem beschränkten Raume, welcher diesen einleitenden Bemerkungen gestattet ist, möglich sein würde.

Klasse XLV.

PROBEN DER CHEMISCHEN PROCESSE FÜR BLEICHEN, FÄRZEN, DRUCKEN UND APPRETIREN.

Eine Angabe aller wichtigen Verbesserungen in den zu dieser Klasse gehörenden Processen wird man in der Einleitung zu den Klassen über Gewebe, Teppiche etc. finden.

Klasse XLVI.

LEDER UND HÄUTE.

Die Lederfabrication ist unter den nationalen Industriezweigen Grossbritanniens als in vierter Reihe stehend geschätzt worden. Sie wird in bedeutendem Umfang in Bermondsey, bei London und in geringerem Umfang in mehreren Theilen des Landes betrieben. Der jährliche Gesamtwert der Lederfabrication wurde im Jahre 1851 auf vierzehn Millionen Pfund Sterling veranschlagt. Dies ist jedoch wahrscheinlich weit unter dem gegenwärtigen Werth, da das Geschäft seit jenem Zeitraum

stättig zugenommen hat. Berichte über die Quantitäten der in das Vereinigte Königreich importirten Häute sind nicht vorhanden; aber ausser der einheimischen Production, welche sehr bedeutend sein muss, findet alljährlich eine grosse Einfuhr von rohen Häuten aus Indien, Südamerika und andern Welttheilen statt. Es besteht auch eine grosse Einfuhr von gegerbtem, weissgarem und zubereitetem Leder.

Die folgende Table zeigt die Quantitäten und den Werth der Häute und des Leders, welche während der fünf Jahre 1861–65 importirt wurden:—

Jahre	Häute, rohe	Häute, gegerbte	Gesamtwert
	Centner	Pfund	£
1861	830,000	5,219,000	2,903,000
1862	943,000	5,212,000	3,204,000
1863	1,023,300	5,202,000	3,230,000
1864	954,000	6,446,000	3,152,000
1865	968,000	7,325,000	3,073,000

Ein grosser Theil der fremden rohen Häute wird zurück exportirt. Die Ausfuhr von Britischem gegerbten Leder (unbearbeitet) betrug während der fünf Jahre 1861–65:—

	Centner	£
1861 . .	40,000	361,000
1862 . .	43,000	406,000
1863 . .	47,000	441,000
1864 . .	38,000	382,000
1865 . .	43,000	409,000

Die Ausfuhr von Lederwaaren wird man in andern Klassen, in welchen sie zusammengeordnet sind, bemerkt finden.

Die Arbeitslöhne der Lohgerber sind ungefähr 25s. per Woche und die der Ledergerber und Zubereiter 34s.

Verschiedene neue Rohmaterialien zur Zubereitung von Häuten wurden in der Londoner Ausstellung von 1862 ausgestellt, von welchen viele durch die Jury für gleich gut, wenn nicht für besser erklärt wurden als die gemeinhin angewandte gewöhnliche Eichenrinde; aber die alte Methode des Gerbens ist noch in weit verbreiteter Geltung.

Die Fabrication von Leder für Handschuhe, Pergament, Goldschlägerhaut und Saiten für musikalische Instrumente wird ebenfalls in dem Vereinigten Königreich betrieben; aber es fehlt an Berichten über den Umfang der verschiedenen Zweige dieser Industrie.

GRUPPE VI.

(KLASSEN XXVII. bis LXVI.)

APPARATE NEBST DEN IN DEN ALLGEMEINEN GEWERBEN ANGEWANDTEN VERFAHRUNGSWEISEN.

Klasse XLVII.

APPARATE UND VERFAHRUNGSWEISEN DER BERGBAUKUNST UND METALLURGIE.

Es würde einen grösseren Raum erfordern als den, welcher hier zur Benutzung offen steht, um die beinahe zahllosen Arten von Apparaten und Maschinerie aufzuzählen, welche in den verschiedenen, zu dieser Klasse gehörigen, Industriezweigen benutzt werden. Die Entwicklung des Bergbaues und der metallurgischen Hilfsquellen des Landes ist hauptsächlich der Anwendung von Maschinerie zuzuschreiben; in der That, manche Minen könnten nie bearbeitet und manche metallurgische Processe nie ausgeführt worden sein, ohne die Hülfe der Dampfkraft. Es fehlt an Berichten über die Zahl der Dampfmaschinen und die Grösse der Dampfkraft, welche in den Metallfabriken des Vereinigten Königreichs benutzt werden. Maschinerie wird jedoch in grossem Umfange gebraucht, um die Mineralien in den Schächten zu heben, die Minen auszutrocknen und, in einigen Fällen, um sie zu ventiliren, obgleich die meisten Englischen Minen durch Oefen ventilirt werden. Bedeutende Verbesserungen sind während der letzten Jahre in der Windemaschinerie, in der Vorkehrung der Oefen zum Zwecke der Ventilation und auch in der Herstellung mechanischer Ventilatoren, gemacht worden. Bohren durch Dampfkraft ist eine der wichtigsten neueren Erfindungen. Maschinen zum Kohlenbrechen und ein vollständiges Modell des Apparats und der Maschinerie welche bei der 'Bessemers'-Methode der Stahlfabrication angewandt werden, sind in dieser Klasse ausgestellt.

Was die sogenannten 'safety-cages' oder Fallschirme angeht, so hat keine der gegenwärtig in Vorschlag gebrachten Methoden allgemeine Befriedigung gegeben, obschon verschiedene Arten angewandt werden.

Die in den Englischen Kohlenbergwerken gebrauchten Sicherheitslampen sind besonders

die altmodische 'Davy-' und die 'Stephenson- oder 'Geordie'-Lampen, welche beide durch Gaze geschützt sind, obgleich Mueseler's Lampen in einige Englische Kohlenbergwerke mit Erfolg eingeführt worden sind.

Klasse XLVIII.

LANDWIRTSCHAFTLICHE APPARATE UND VERFAHRUNGSWEISEN, WELCHE IN DER FELD- UND WALDCULTUR ZUR ANWEN- DUNG KOMMEN.

Die Fabrication von Maschinen und Geräthen zu landwirthschaftlichen Zwecken hat in dem Vereinigten Königreich einen hohen Grad der Vervollkommenung erreicht; und abgesehen von einer ansehnlichen Production für einheimischen Gebrauch, werden landwirthschaftliche Maschinen und Geräthe alljährlich in bedeutender Masse exportirt. Die Anwendung von Dampfkraft für viele landwirthschaftliche Arbeiten ist jetzt sehr allgemein. Die Landwirthschaft hat während der letzten Jahre eine lebhafte Beachtung gefunden, und mittelst verbesserten Drainirens und der Anwendung künstlichen Düngers und verbesserter Apparate ist die Fruchtbarkeit des Bodens ausserordentlich vermehrt worden. Die in dem Vereinigten Königreich zu landwirthschaftlichen Zwecken benutzten Karren und Wagen sind der Regel nach denjenigen, welche im Auslande zu ähnlichen Zwecken gebraucht werden, weit überlegen.

In ihren Bemerkungen über die jüngsten Verbesserungen der zu dieser Klasse gehörenden Gegenstände machte die Jury über landwirthschaftliche Geräthe in der Londoner Ausstellung von 1862 besonders aufmerksam auf die vermehrte Anwendung beweglicher Dampfmaschinen zum Korndreschen, des Dampfpfluges und Pflanzers, der Schneide- und Mäh-

maschinen und auf die Anwendung von Maschinerie für das Zerstampfen von Viehfutter.

Die Fabrication landwirthschaftlicher Geräthe und Maschinen wird in grossem Umfang in Lincoln, Peterborough, Grantham, Bedford, Ipswich, Leiston, Stowmarket und vielen andern Theilen des Landes betrieben.

Statistische Angaben über die Production der in diese Branche der einheimischen Industrie gehörigen Gegenstände sind nicht vorhanden, aber von ihrer Bedeutung mag die Zahl der Aussteller in dieser Klasse eine Vorstellung geben.

Der Werth der landwirthschaftlichen Geräte, welche im Jahre 1865 aus dem Vereinigten Königreich ausgeführt wurden, betrug 210,000£, der landwirthschaftlichen Maschinerie (mit Ausschluss von Dampf) 282,000£, und der ganz aus Eisen bestehenden Geräte 13,000£. Ein besonderer Bericht über den Export von Locomotiven für landwirthschaftliche Zwecke ist nicht vorhanden, aber mehrere Hundert werden jährlich nach fremden Ländern versandt.

Die während des Jahres 1865 zu Zwecken des Düngens importirten Hauptgegenstände waren:—

	Quantitäten	Werth
	Tonnen	£
Knochen . . .	65,642	362,000
Guano . . .	237,393	2,676,000
Düngmittel: Unaufgezählt . .	8,025	49,000

Klasse XLIX.

APPARATE ZUR JAGD UND ZUM FISCHFANG, UND GERÄTHE ZUM EINSAMMELN VON FRÜCHTEN, WELCHE OHNE BODENCULTUR GEWONNEN WERDEN.

Die Fabrication von Jagdflinten wird hauptsächlich in Birmingham und London betrieben. Angaben über die Industrie wird man unter Klasse 37 finden.

Geräthe zum Fischfang werden in ziemlicher Menge in England fabricirt. Angelhaken, Aalspeere, Harpunen und Köder und andere Geräte werden in grossem Umfang in Redditch gemacht, und eine ansehnliche Branche des Geschäfts in Angelruthen, künstlichen Fliegen, Leinen, Angelkorken, Netzen etc. wird in London betrieben.

Ungefähr 600 Personen sind in Redditch mit der Fabrication von Angelhaken beschäftigt, und nach dem Census von 1861 waren in England und Wales 700, und in Irland 60 Personen mit der Fabrication von Angelruthen und Takel beschäftigt. Künstliche Fliegen und Köder werden in Redditch, besonders von Mädchen und Frauen, gemacht. Die Arbeitslöhne in Redditch werden auf ungefähr 8s. bis 15s. per Woche für Frauen und

12s. bis 40s. für Männer veranschlagt. In London sind die Löhne höher, da die besten Arbeiter in dem Geschäft, wenn sie von acht bis zehn Stunden täglich arbeiten, 40s. bis 80s. per Woche verdienen.

Der Werth des im Jahre 1865 aus dem Vereinigten Königreich exportirten Fischgeräths betrug 81,000£.

Klasse L.

APPARATE UND VERFAHRUNGSWEISEN, WELCHE BEI LANDWIRTSCHAFTLICHEN ARBEITEN UND BEI ARBEITEN FÜR DIE ZUBEREITUNG VON NAHRUNGSMITTELN ANGEWANDT WERDEN.

Maschinerie wird in dem Vereinigten Königreich in grossem Umfang für die Fabrication von Drainir-Röhren, für Zermahlung von Knochen, für das Mahlen von Korn, für Brotbacken und viele andere in diese Klasse gehörende Processe angewandt. Es ist unmöglich, an dieser Stelle auf die zahlreichen Verbesserungen in den verschiedenen Theilen der Maschinerie hinzuweisen, welche in den obigen Industriezweigen benutzt wird; aber die zunehmende Concurrenz der Fabricanten in den einheimischen und auswärtigen Märkten reicht an sich hin, die Producenten zu veranlassen, von jeder Verbesserung Gebrauch zu machen, welche zum Zwecke der Vermehrung der Produktionskraft entdeckt wird, da sie so in den Stand gesetzt werden, entweder ihre Nebenbuhler zu verdrängen, oder grössere Profite zu machen als diese.

Berichte über die Zahl oder die Dampfkraft der Maschinen, welche in den zu dieser Klasse gehörenden Geschäften arbeiten, sind nicht vorhanden.

Klasse LI.

APPARATE, WELCHE IN DER CHEMIE, PHARMACOPIE UND IN LONGERBEREITEN ANGEWANDT WERDEN.

Die Mannigfaltigkeit der Verfahrensweisen, welche in den mit dieser Klasse verknüpften Geschäftszweigen angewandt werden, macht es, bei der Kürze des Raumes, welcher diesen Bemerkungen zugemessen ist, schwer, auch nur auf die wichtigeren der jetzt gebrauchten Apparate hinzuweisen. Der rasche Fortschritt der Wissenschaft während der letzten Jahre hat jedoch in hohem Masse dazu beigetragen, sowohl manche alte Processe zu vervollkommen als manche neue, mit den chemischen Productionen von England verknüpfte, einzuführen. Einige der neuen Verbesserungen sind in dieser Klasse ausgestellt.

Klasse LII.

HAUPTBEWEGUNGSKRÄFTE, DAMPFKESSEL
UND MASCHINEN, WELCHE BESONDERS
DEN ERFORDERNISSEN DER AUSSTELLUNG
ANGEMESSEN SIND.

Da die in dieser Klasse ausgestellten Gegenstände für einen besondern Zweck ausgewählt worden sind, so bleibt es der Entscheidung der Behörden überlassen, zu erklären, inwiefern die von Englischen Ausstellern ausgestellten Gegenstände zweckentsprechend befunden wurden. Bemerkungen über das Britische Maschinengeschäft im Allgemeinen wird man in Klasse 53 finden.

Klasse LIII.

MASCHINEN UND APPARATE IM ALLGE-
MEINEN.

Der commercielle Wohlstand des Vereinigten Königreichs ist in sehr hohem Grade dem Besitz eines reichen Vorraths an denjenigen Rohmaterialien zuzuschreiben, welche für die Herstellung von Maschinerie erforderlich sind, und an Kohlen, welche die Maschinen in Thätigkeit setzen, wenn sie vollendet sind, sowie dem hohen Grade von Vollkommenheit, welchen die Fabrication, in ihrer Anwendung auf die beinahe zahllosen, mit der National-industrie von England verknüpften Processe, erreicht hat. Gäbe es keinen andern Beweis von der Bedeutung dieses Geschäftszweigs, so würde die blosse Thatsache der jährlich zunehmenden Nachfrage nach Britischer Maschinerie in fremden Ländern genügend sein, die hohe Stellung darzuthun, welche sie in der Industrie Englands einnimmt.

Maschinen und Maschinerie werden in grossem Umfang in Manchester, Leeds, Birmingham, Sheffield, Newcastle, Glasgow und vielen andern Englischen Städten verfertigt. Die für den Seedienst bestimmten Maschinen werden hauptsächlich in den Werken an den Ufern der Themse und der Clyde gemacht, obgleich sie in geringerem Masse auch in Newcastle und in andern Theilen des Königreichs producirt werden.

Die Fabrication von hydraulischer Maschinerie, von Flaschenzügen, Nähmaschinen und Nägel machender Maschinerie, nebst der von Messing- und Kupferrohren für Maschinen, wird in beträchtlichem Umfang in Birmingham betrieben; doch die letztgenannten Gegenstände werden auch in Manchester, Liverpool und Newcastle producirt. Landwirthschaftliche Maschinerie bildet ebenfalls eine bedeutende Branche des Maschinengeschäfts, aber da sie in Klasse 74 eingeschlossen ist, ist an dieser Stelle keine weitere Hinweisung nöthig.

Die Zahl der mit der Maschinen-Fabrication beschäftigten Arbeiter war nach dem Census

von 1861 in den verschiedenen Provinzen des Vereinigten Königreichs:—

In England und Wales, ungefähr	72,000
Schottland	10,500
Irland	900
	<hr/>
	83,400

Bei den zahlreichen Unterabtheilungen des Maschinengeschäfts ist es schwer, die wirkliche Zahl der darin arbeitenden Personen zu ermitteln. Die obigen Zahlen werden jedoch für ziemlich genau gehalten.

Vollständige Berichte über die Durchschnittslöhne, welche in dem allgemeinen Maschinengeschäft des Landes gezahlt werden, sind nicht vorhanden; allein in den meisten Branchen findet die geschickte Arbeit einen hohen Lohn, und da es nie an Beschäftigung fehlt, erfreuen die Arbeiter in diesem Geschäft sich eines verhältnissmässigen Wohlstands. Der letzte Bericht über die den Maschinenarbeitern in Manchester gezahlten Durchschnittslöhne ist vom Jahre 1859, und sie standen damals wie folgt: Modellmacher, Schmiede, Kesselmacher und Mühlenbauer, 32s.; Tischler, 28s.; Planirer, 22s.; Bohrer, 20s.; und Hauer, Schrauber und Stosser, 80s., per Woche von 58 Stunden. Die Durchschnittslöhne in Glasgow im Jahre 1866 werden auf 25s. für Kesselmacher und 24s. für Schmiede, per Woche von 60 Stunden, angegeben. Die Durchschnittslöhne für die Fabrication hydraulischer Maschinerie in Birmingham sind, für geschickte Arbeiter, ungefähr 55s., und für Arbeiter zweiten Ranges von 30s. bis 40s. per Woche.

Der Werth sämmtlicher Arten aus dem Vereinigten Königreich exportirter Britischer Maschinerie stieg von 2,243,000l. im Jahre 1855 auf 5,222,000l. im Jahre 1865. Die nachstehende Tabelle zeigt die Hauptgattungen von Maschinerie, welche in dem letztgenannten Jahre exportirt wurden:—

Maschinerie und Mühlenwerk:

Dampfmaschinen	Locomotiven	945,451
oder Theile von	Andere als	
Dampfmaschinen	Locomotiven	1,013,082
Andere als Dampf-	Landwirth-	
maschinen	schaftliche	282,019
	Andere Arten	2,982,081
	Summa	5,222,633

In einer Klasse, welche eine so unendliche Mannigfaltigkeit von Gegenständen einschliesst, und in der täglich Verbesserungen stattfinden, ist es schwer, in wenigen Worten den Umfang der Fortschritte zu beschreiben, welche während der letzten Jahre gemacht worden sind. Die Jury in Klasse 8 der Ausstellung von 1862 erklärte, indem sie die in der vorhergehenden Ausstellung von 1851 ausgestellten Gegenstände als vergleichenden Massstab anlegte, 'dass man mit Bezug auf Dampfmaschinen bemerken könne, dass sie eine vermehrte Anwendung hohen Druckes, grosse

Ausdehnung und Ueberheizung, eine vermehrte Benutzung von Oberflächen-Condensation (welche gewöhnlich durch eine grosse Zahl kleiner horizontaler Röhren bewirkt wird), eine Richtung auf Einfachheit in der Gestalt und den Hauptbewegungstheilen, ein allgemeines Aufgeben von Veranstaltungen, welche mehr merkwürdig als nützlich sind, und eine höhere Vollkommenheit der Ausarbeitung erkennen lassen, Verbesserungen, die sämmtlich eine grössere Ersparniss von Brennstoffen, Kraft und Instandhaltung erzielen.' 'Die allgemeinen Bemerkungen über den Fortschritt der Landmaschinen sind auch auf die Seemaschinen anwendbar. Die Vervollkommnung der Arbeit ist sogar noch auffallender.' Ein bedeutender Fortschritt wurde auch in den schweren Gussarbeiten, dem rohen Schmiedewerk und in vielen besonderen Maschinentheilen und verschiedenartigen Mechanismen bemerkt. Alle wichtigen Verbesserungen, welche seit 1862 stattgefunden haben, wird man ohne Zweifel unter den in dieser Klasse ausgestellten Gegenständen finden.

Klasse LIV.

MASCHINENWERKZEUGE.

Die Fabrication von Maschinenwerkzeugen ist in dem Vereinigten Königreich bereits zu einem hohen Grade von Vervollkommnung gediehen, obgleich in Bezug auf die Einfachheit der Construction der Werkzeuge, wie auf ihre Anpassung zu verschiedenartigen Zwecken, noch Raum für grössere Verbesserungen vorhanden ist.

Maschinenwerkzeuge werden in beträchtlicher Menge in Manchester, Sheffield, Leeds und vielen andern Ortschaften des Königreichs gemacht. Seit der Einführung des Dampfs als einer bewegenden Kraft hat die Anwendung von Maschinenwerkzeugen reissend zugenommen, und es giebt jetzt wenige Arbeitsmethoden, in Verbindung mit den Hauptindustriestämmen des Landes, welche nicht durch Maschinerie und Maschinenwerkzeuge ausgeführt werden.

Die wichtigsten Vortheile, welche der Gebrauch von Maschinenwerkzeugen, im Vergleich mit der durch die Hand verrichteten Arbeit, gewährt, sind: Vermehrte Produktionskraft, Gleichheit der Qualität und Regelmässigkeit in der Menge der Arbeit; während die grössere Produktionskraft, welche die Anwendung solcher Geräthschaften sichert, den Fabricanten in den Stand setzt, geschickten Arbeitern hohe Löhne zu zahlen und so die Lage der Arbeiter zu verbessern.

Es sind keine Berichte vorhanden über die Zahl der in diesem Industriezweig beschäftigten Arbeiter, oder über den jährlichen Werth der Production des Geschäfts. Doch diese Gegenstände werden nicht bloss für einheimischen Gebrauch gemacht, sondern auch in grosser Menge exportirt. Im Jahre 1865 be-

trug der Export der mehr oder weniger zu dieser Klasse gehörigen Maschinerie:—

Dampfmaschinen und Theile von	£
Dampfmaschinen (andere als locomotive)	1,013,000
Maschinerie und Mühlenwerk (andere als Dampfmaschinen)	2,982,000
Werkzeuge und Geräthschaften für industrielle Zwecke, die nicht als Maschinerie classificirt sind	87,000

Die Einrichtung von Regierungs-Schulen für Wissenschaft und Kunst in den verschiedenen Fabrikstädten ist von höchst wohlthätigem Einfluss gewesen auf die Arbeiterklasse, welche mit der Fabrication von Maschinerie und Maschinenwerkzeugen beschäftigt ist; denn der ihnen ertheilte Unterricht macht sie nicht allein zu bessern Arbeitern, sondern auch zu Verbesserern alter und zu Erfindern neuer Maschinerie und erhebt sie so, während er die Fabricationskraft des Landes steigert, zugleich zu einer höhern gesellschaftlichen Stellung.

Klasse LV.

APPARATE UND METHODEN, WELCHE BEIM SPINNEN UND SEILDREHEN ANGEWANDT WERDEN.

Die Fabrication von Seilen, Tauwerk etc. ist weit durch das Land verbreitet, aber die Hauptsitze der Seiler-Industrie sind in Liverpool, Newcastle und andern Häfen an der Tyne, in London und in einigen Schottischen Häfen. Taus für den Gebrauch der Kriegsflotte werden auch in den königlichen Werften gemacht. Die rasche Verbreitung des Gebrauchs von Drahtseilen für das Takelwerk von Schiffen, für Kohlengruben und andere Zwecke hat grosse Verbesserungen in der Seilfabrication veranlasst.

Die beiden unterseeischen Telegraphenkabel, welche gegenwärtig das Vereinigte Königreich mit Amerika verbinden, sind an sich genügend, die hohe Entwicklung zu bezeichnen, welche die Drahtseil-Fabrication in England erlangt hat. Was die zum Spinnen benutzte Maschinerie angeht, so wird man einen Bericht darüber in den verschiedenen Klassen der Webefabricate finden; mehrere Maschinen sind jedoch in dieser Klasse ausgestellt, welche die neusten Verbesserungen zeigen, die in dieser Gattung von Maschinen stattgefunden haben.

Die Zahl der Seil- und Taufabricanten betrug nach dem Census von 1861:—

	Männer	Frauen	Summa
In England und Wales .	11,762	1,724	13,486
Schottland . . .	2,313	267	2,580
Irland . . .	1,132	33	1,165
Summa . . .	15,207	2,024	17,231

Die zu der Fabrication von Seilen gebrauchten Materialien werden hauptsächlich aus Russland, Italien und Ostindien eingeführt. Im Jahre 1865 war die Einfuhr der hierher gehörenden wichtigsten Gegenstände wie folgt:—

	Quantitäten	Werth
Taugarn oder Hanf etc., mit Aus- schluss von Sei- lerrollen . . .	Pfd. 11,082,747	163,932
Taurollen . . .	Centner 97,647	177,609
Präparirter und un- präparirter Hanf }	„ 1,065,705	1,704,187

Die obigen Zahlen geben die Gesamtmasse des eingeführten Hanfs, von welcher indessen nur ein Theil zu der Fabrication von Seilen verwandt wird.

Drahttaue werden hauptsächlich in Gateshead und Birmingham gemacht, während die Fabrication des dazu benutzten Drahts hauptsächlich an dem letzteren Orte stattfindet.

Die Masse und der Werth der Britischen Seilerarbeit im Jahre 1865 betragen:—

	Quantitäten	Werth
Taue und Seile:		£
Von Hanf . . .	Centner 130,715	268,677
Andere Arten . . .	„ 14,009	27,692
Bindfaden . . .	„ 23,449	117,844

Drahtseile werden bei der Ausfuhr nicht von andern Drahtfabricaten unterschieden.

Klasse LVI.

APPARATE UND METHODEN, WELCHE BEIM WEBEN ANGEWANDT WERDEN.

Die Hauptsitze der Fabrication von Maschinerie zum Weben und auch zum Spinnen sind Manchester, Oldham, Bury und viele andere Theile von Lancashire, Leeds, Halifax, Bradford in Yorkshire und Glasgow und Dundee in Schottland. Obgleich diese Klasse von Maschinerie einen hohen Grad von Vortrefflichkeit erricht hat, werden dennoch in den verschiedenen Theilen der Maschinerie fortwährend neue Verbesserungen angebracht, welche sie vollständiger und selbstthätiger machen und ihre Produktionskraft vermehren. Eine Betrachtung der vollständigen Reihe von Zubereitungs-, Spinn- und Webe-Maschinen für Baumwolle, Wolle und Worsted, ausgestellt von der wohlbekannten Firma der Messrs. Platt & Co., in Klasse 55, wird eine bessere Vorstellung von den Vorzügen dieser, gegenwärtig in den Englischen Fabriken gebrauchten Klasse von Maschinen geben, als irgend eine kurze Beschreibung zu gewähren vermag.

Statistische Angaben über die Zahl der in dieser Branche der Englischen Maschinenfabrication beschäftigten Arbeiter sind nicht vorhanden. Eine beträchtliche Masse in-

dustrieller Maschinerie wird jährlich aus England exportirt, wie aus den Bemerkungen zu Klasse 35 erhellt.

Klasse LVII.

APPARATE UND METHODEN ZUM NÄHEN UND ZUR VERFERTIGUNG VON KLEIDUNGSSTÜCKEN.

Die wichtigsten, in diese Klasse gehörenden Apparate sind diejenigen zum Nähen und zur Stiefelfabrication durch Maschinerie. Nähmaschinen wurden zuerst im Jahre 1845 oder 1846 von Amerika in England eingeführt; seit jener Zeit haben zahlreiche Verbesserungen in ihrer Construction stattgefunden, und sie werden jetzt beinahe allgemein sowohl für einfache als ornamentale Arbeit angewandt. Die Jury der Londoner Ausstellung von 1862 erklärte, dass während der zehn Jahre seit 1851 ein beträchtlicher Fortschritt in der Fabrication von Stiefeln und Schuhen durch Maschinerie gemacht worden sei. Ein sehr bedeutendes En-gros-Geschäft mit genagelten Stiefeln und Schuhen, hauptsächlich für Frauen und Kinder, ist während der letztverflossenen Jahre in Leicester in's Leben getreten. Die Schuhpflock- und Pflockschneidemaschinen der Messrs. Greenwood und Batley wurden von der Jury im Jahre 1862 höchlich belobt und erlangten die Preismedaille. Da die Stiefelfabrication durch Maschinerie, im Vergleich mit der durch Handarbeit, eine grosse Ersparniss in den Kosten der Herstellung bewirkt, so ist zu hoffen, dass die gegenwärtige Ausstellung noch weitere Verbesserungen der in diesem wichtigen Industriezweige bereits angewandten Maschinerie zur Kenntniss bringen wird.

Klasse LVIII.

APPARATE UND METHODEN, WELCHE IN DER FABRICATION VON MÖBELN UND WOHNUNGS-GEGENSTÄNDEN ANGEWANDT WERDEN.

Mehrere Apparate, welche in das Gebiet dieser Klasse gehören, wie Holzschneide-, Hobel- und Forme-Maschinen etc., wird man in Klasse 54 als Maschinenwerkzeuge ausgestellt finden. Maschinerie wird jetzt so allgemein in sämtlichen Industriezweigen innerhalb des Vereinigten Königreichs angewandt, dass selbst eine kurze Andeutung der im Gebrauch befindlichen verschiedenen Arten die Grenzen dieser Bemerkungen überschreiten würde. Die zunehmende Tendenz des Geschäfts auf eine Vereinigung der Hauptindustrien des Landes in den Händen grosser Firmen und Compagnien, welche ansehnliche Capitalien verwenden, hat einen vermehrten Gebrauch von Maschinerie

veranlasst, um grosse Unternehmungen zu erleichtern und die Ausgaben für Arbeit zu beschränken. Eine Angabe der hauptsächlichsten Fabricate wird man in Klasse 53 finden.

Klasse LIX.

APPARATE UND METHODEN, WELCHE ZUR PAPIERFABRICATION, ZUM FÄRBen UND ZUM DRUCKEN ANGEWANDT WERDEN.

Von der Wichtigkeit des Papiergeschäfts ist bereits in den Bemerkungen zu Klasse 7 die Rede gewesen. Aber obgleich die Papierfabrication während der letzten Jahre so ungeheuer zugenommen hat, sind doch nur geringe Verbesserungen in der 'beständigen' (continuous) Papiermaschine gemacht worden, welche zu Anfang unseres Jahrhunderts in Gebrauch kam. Proben der jetzt zur Papierfabrication angewandten Maschinerie wird man in dieser Klasse ausgestellt finden. Die wichtigsten Verbesserungen, welche in der Methode der Buchdruckerkunst seit 1851 stattgefunden haben, sind: die Einführung von Maschinerie zum Giessen der Lettern und von Apparaten zum Setzen und Vertheilen der Lettern. Viele Verbesserungen in den Druckmaschinen sind auch während der letzten zehn Jahre gemacht worden, um der gewaltig vermehrten Nachfrage nach Zeitungen, Büchern und Journalen zu begegnen, welche während desselben Zeitraums stattgefunden hat. Die Ausfuhr der verschiedenen, in diese Klasse gehörenden, Maschinen wird nicht abgesondert registrirt, sondern ist in die allgemeinen Berichte eingeschlossen, welche in Klasse 53 mitgetheilt sind. Der Werth von Lettern und Druck-Materialien Britischer Fabrication, welche im Jahre 1865 aus dem Vereinigten Königreich exportirt wurden, betrug 68,930l.

Klasse LX.

MASCHINEN, INSTRUMENTE UND METHODEN, WELCHE IN VERSCHIEDENEN INDUSTRIEZWEIGEN ANGEWANDT WERDEN.

Ogleich während der letzten Jahre keine grosse Veränderungen in der Maschinerie stattgefunden haben, welche zu der Fabrication der meisten in diese Klasse gehörenden Gegenstände angewandt wird, sind doch manche wichtige Verbesserungen gemacht worden, um die bereits vorhandenen Maschinen zu vervollkommen. Die Fabrication von Knöpfen, Stecknadeln und Nähadeln bildet einen ansehnlichen Zweig der einheimischen Industrie. Der Hauptsitz derselben ist in Birmingham und dessen Nachbarschaft. Das Knopfgeschäft beschäftigt ungefähr 6,000 Personen, und die in demselben an männliche Arbeiter gezahlten Durchschnitts-

löhne werden auf 25s., die an Frauen auf 7s. bis 9s. und die an Mädchen und kleine Kinder auf 1s. bis 1s. 6d. per Woche veranschlagt. Statistische Angaben über die Zahl der gegenwärtig in dem Stecknadelgeschäft arbeitenden Personen sind nicht vorhanden; aber nach den Berichten des Census von 1861 betrug die Gesamtzahl der Arbeiter, welche in diesem Industriezweige in England und Wales beschäftigt waren, 322, die der Arbeiterinnen 407. Stecknadeln werden jetzt beinahe ausschliesslich mit Maschinerie gemacht, und die angewandte Maschine producirt, durch die Umdrehung eines einzigen Rades, eine vollständige Nadel. Nähadeln werden hauptsächlich in Redditch gemacht, wo dieser Industriezweig ungefähr 8,000 Arbeiter beschäftigt. Die Durchschnittslöhne für Männer sind 12s. bis 40s., die für Frauen 8s. bis 15s. und die für Kinder 1s. 6d. bis 5s. per Woche. Messrs. Bartlett und Woodward erklären in ihrem Berichte über das Nähadelgeschäft in Redditch, dass in Beziehung auf Reinlichkeit und Nettigkeit die sociale Lage der Arbeiter gemeinhin die des Durchschnittszustandes übertrifft. Eine Nähadel muss durch siebenzig Paar Hände gehen, bevor sie als vollendet und zur Benutzung geeignet angesehen wird. Die Fabrication von Stahlfedern findet hauptsächlich in Birmingham statt und giebt etwa 360 Männern und 2,000 Frauen und Kindern Beschäftigung. Die Zahl der wöchentlich fabricirten Federn beträgt 98,000 Gross. Die Hauptmasse des zu der Fabrication gebrauchten Stahls wird in Sheffield gemacht. Die obigen Zahlen sind einem Berichte Mr. Timmins' entlehnt, der auch erklärt, dass die Lage der Arbeiter in dem Federgeschäft sehr befriedigend sei. Die Löhne von Mädchen schwanken zwischen 5s. und 12s. wöchentlich, während einige von den jüngeren nur 2s. 6d. bis 3s. 6d. verdienen. Einige geschickte Arbeiterinnen machen von 15s. bis 20s. Männer verdienen von 18s. bis 20s., Knaben, je nach ihrer Geschicklichkeit, 4s. 6d. bis 16s. und geschickte erwachsene Arbeiter von 30s. bis 80s. wöchentlich. Arbeitsstunden 52½ bis 57 per Woche. Die Methode der Federfabrication sowohl als die der Steck- und Nähadel-Fabrication wird man in den Beiträgen von Birmingham, Studley und Redditch erläutert finden, welche in dieser Klasse ausgestellt sind.

Klasse LXI.

WAGEN- UND RADMACHER-ARBEIT.

Der Hauptsitz der Wagenfabrication ist in London, obgleich dieselbe auch in Edinburg, Dublin, Liverpool, Derby, Manchester, Nottingham, Glasgow, Southampton, Newcastle und andern Städten des Königreichs betrieben wird.

Die Zahl der Personen, welche während des Jahres 1861 in den verschiedenen Theilen des

Vereinigten Königreichs in diesem Industriezweige arbeiteten, betrug:—

	Wagenmacher	Radmacher
In England und Wales . .	18,870	30,070
Schottland	1,550	1,282
Irland	3,000	591
Summa	23,420	31,943

Allgemeine Berichte über die Löhne, welche den mit dem Wagenbau beschäftigten Arbeitern gezahlt werden, sind nicht vorhanden, aber die Löhne, welche in diesem Geschäftszweige im Jahre 1866 in Edinburg gezahlt wurden, betragen:—

	Per Woche von 57 Stunden	
	Erste Klasse	Zweite Klasse
Arbeiter:	£ s. d.	£ s. d.
Schmiede	1 7 0	1 2 0
Kastenmacher . .	1 10 0	1 2 0
Wagenmacher . .	1 3 0	—
Anstreicher . . .	1 2 0	1 0 0
Ausstaffierer . .	1 5 0	1 0 0
Radmacher	1 2 0	0 18 0
Springfedermacher	1 6 0	—

Der Bericht über Wagen in der Londoner Ausstellung von 1862 erklärt, dass die Lage der mit dem Wagenbau beschäftigten Arbeiter sich während der letzten Jahre sehr verbessert hat; schlechte Gewohnheiten haben sich unter ihnen vermindert, und ihre Bildung hat zugenommen. Da der Erfolg des Wagenbauens in hohem Masse von einer Kenntniss gesunder mechanischer Grundsätze, von Geschick im Entwerfen und von der harmonischen Verbindung der Farben abhängt, ist es wesentlich, dass die Arbeiter in diesem Industriezweig eine gründliche Kunsterziehung empfangen.

Der Werth der im Jahre 1865 in das Vereinigte Königreich importirten Kutschen betrug nur 5,800£. Der Werth der während desselben Jahres exportirten Britischen Kutschen betrug 175,000£. und der Karren und Lastwagen 8,400£. Ein grosser Theil der Kutschen wurde nach dem Englischen Indien versandt.

Unter den Verbesserungen, welche in der Wagenfabrication stattgefunden haben, verdient die Anwendung von Maschinerie in einigen Branchen des Geschäfts hervorgehoben zu werden. Bei der Eigenthümlichkeit des Geschäfts ist es jedoch zweifelhaft, ob Maschinerie je mit Nutzen für die Herstellung von Privatwagen wird angewandt werden, da diese Letzteren nothwendigerweise in jeder Beziehung ebenso von einander abweichen als der Geschmack der Personen, auf deren Bestellung die Arbeit unternommen wird. Sowohl in der Zeichnung, der Farbe und der Leichtigkeit der Privatwagen, als in den zu ihrer Construction gebrauchten Arbeitsgeräthen, hat seit 1851 ein beträchtlicher Fortschritt stattgefunden.

Eine grosse Vermehrung der Nachfrage nach

Güterwagen, Lastwagen und Karren ist durch die Ausdehnung des Eisenbahnsystems in England veranlasst worden, und viele neue Arten von Fuhrwerk sind, zum Zwecke der Gütervertheilung von den verschiedenen Eisenbahnstationen aus, in Gebrauch gekommen. Beträchtliche Verbesserungen sind auch seit 1851 in den Londoner Omnibussen und in den zum Möbeltransport bestimmten Lastwagen gemacht worden. Eisenbahnwagen werden in Klasse 63 besprochen.

Klasse LXII.

PFERDEGESCHIRR UND SATTLERARBEIT.

1. Englische Sattlerarbeit und Pferdegeschirr sind lange für die Vortrefflichkeit ihrer Qualität und Ausarbeitung berühmt gewesen. Die Hauptmittelpunkte der Industrie sind in Walsall, Birmingham, London und Glasgow; doch wird sie auch in vielen andern Städten des Königreichs betrieben. Mehrere kleinere mit dieser Industrie verknüpfte Geschäftszweige, wie die Fabrication von Gebissen, Steigbügeln, Ketten und anderm Geschirr und Verzierungen, haben ebenfalls an denselben Orten ihre Hauptsitze.

2. Das in dem Geschäft benutzte Leder ist vorzugsweise von einheimischer Fabrication.

3. Nach dem Census von 1861 war die folgende Zahl von Personen in diesem Industriezweige beschäftigt:—

In England und Wales . .	18,229
Schottland	1,822
Irland	2,968
	23,019

Und wahrscheinlich 500 bis 600 Personen waren beschäftigt als Sattelbaummacher und als Eisenarbeiter für Sattler.

4. Die Arbeitslöhne in dem Sattler- und Pferdegeschirrgeschäft von Walsall stehen etwas höher als die Durchschnittslöhne. Die Verdienste der Arbeiter schwanken zwischen 20s. und 45s. wöchentlich. Mädchen und Frauen können von 8s. bis 13s. per Woche verdienen. Der Lohn von Lehrlingen beträgt für das erste Jahr 3s.; während der letzten Jahre der Lehrlingschaft erhalten sie von 12s. bis 14s. per Woche. Arbeitsstunden von 7 oder 8 Uhr Morgens bis 7 Uhr Abends.

Die Sattel- und Pferdegeschirr-Fabriken in Walsall sind sehr hübsch und gut gebaut.

Es wird behauptet, dass ungefähr 60 Procent der Arbeit in Walsall von Arbeiterinnen gethan wird, von denen viele in ihren eigenen Häusern arbeiten. Die Anwendung der Nähmaschine, zum Nähen des Pferdegeschirrs, hat eine grosse Arbeitersparniss in diesem Geschäftszweige veranlasst.

5. Eine Einfuhr von Sattlerarbeit und Pferdegeschirr, nach England ist kaum vorhanden.

6. Der Werth Britischer Sattlerarbeit und

Pferdegeschirrs, welche während der fünf Jahre 1861-65 aus dem Vereinigten Königreich exportirt wurden, betrug:—

1861	• • • •	£ 307,700
1862	• • • •	343,600
1863	• • • •	341,600
1864	• • • •	345,900
1865	• • • •	350,500

Der grössere Theil dieser Ausfuhr ging nach den Englischen Colonien und besonders nach Australien.

7. Mr. Franklin erklärt in einem Bericht über die Geschäfte in Walsall im Jahre 1865, es sei der Bemerkung werth, dass seit dem Jahre 1849 wenig Erfindungsgeist an den Tag gelegt und wenige Veränderungen in Form und Ansehen von Pferdegeschirr und Sattlerarbeit gemacht worden seien, mit Ausnahme des 'Nolan'-Sattels, welcher während des Krimkriegs erfunden wurde und jetzt allgemein in der Armee gebraucht wird, aber nur für militärische Zwecke geeignet ist. Ein bedeutender Fortschritt hat jedoch in der Verzierung von Sätteln und Pferdegeschirr stattgefunden, und viele Sattler, welche dieser Branche des Geschäfts ihre besondere Aufmerksamkeit zuwenden, haben einen regelmässigen Unterrichtscursus in den Zeichenschulen durchgemacht.

Klasse LXIII.

EISENBAHNGERÄTHSCHAFTEN.

Es kann kaum geläugnet werden, dass der Wohlstand des Landes grossentheils den vermehrten Verbindungsmitteln zu verdanken ist, welche zwischen allen Theilen des Königreichs bestehen, und die Eisenbahnen darunter den ersten Rang einnehmen. Zeit ist gleichsam, in unseren Tagen, Geld, rasche Beförderungsmittel sind deswegen zur unumgänglichen Nothwendigkeit geworden, und England darf billigerweise die Ehre in Anspruch nehmen, das gegenwärtige Eisenbahnsystem eingeführt zu haben, wodurch gleichsam Zeit und Entfernung überwunden worden sind.

Eisenbahngeräthschaften werden in verschiedenen Theilen des Landes verfertigt; Schienen und Schienenlager hauptsächlich in den Fabriken der Eisendistricte und Stahlschienen in Sheffield. Locomotiven macht man in grosser Anzahl in Newcastle, Manchester, Leeds, Glasgow und andern Städten, sowie auch in den Privatwerkstätten einiger bedeutenden Eisenbahngesellschaften. Birmingham besitzt grosse Fabriken für Personen- und Güterwagen und anderes Eisenbahn-Material.

Ueber die Schaffungsfähigkeit von Eisenbahngeräthschaften im Vereinigten Königreiche giebt es keine allgemeinen amtlichen Berichte, indem viele derselben in den Eisenwarengeschäften des Landes einbegriffen sind. Nach einem im Jahre 1864 über die Hilfsquellen der Districte an der Tyne, Wear und Tees veröffentlichten Werke sollen seit Beginn

des Locomotivbaues aus den Fabriken in Newcastle allein gegen 2,400 Locomotiven hervorgegangen sein; von diesen gingen 900 in's Ausland.

Den Durchschnittspreis zu 2,000£ angenommen, beläuft sich der Werth der exportirten Locomotiven auf 1,800,000£. Hierzu kommen noch diejenigen, welche zur Verwendung in Grossbritannien und Irland angefertigt wurden, zu einem Preis von 1,500£, 2,700,000£ betragend, welches einen Gesamtwert von 4,500,000£ ergibt. Mr. Timmins führt in seinem Bericht über die Verfertigung von Eisenbahnmateriale in Birmingham an, dass der Bau von Eisenbahnwagen etc. auf diesem Platze schon im Jahre 1838 angefangen habe; seitdem ist Birmingham durch seine centrale Lage der Hauptsitz dieser Fabriken geworden. Die hohe Wichtigkeit dieses Geschäftszweiges erhellt aus dem Umstande, dass mehr als 12,000 Englische Meilen Eisenbahnen im Königreiche befahren werden, wozu 15,000 Personen- und 200,000 Güterwagen erforderlich sind. Mr. Timmins schätzt den Werth des Eisenbahn-Betriebsmaterials im Königreiche auf circa 17,000,000£, und davon beträgt die jährliche Abnutzung etwa 1,250,000£. Die Zahl der auf den Eisenbahnen des Vereinigten Königreichs im Jahre 1865 benutzten Locomotiven betrug 7,414.

Ausser dem, was England an Eisenbahnmateriale für den einheimischen Bedarf erzeugt, führt es noch in diesem Zweige bedeutend aus. Im Jahre 1865 wurden die folgenden hauptsächlich zu dieser Klasse gehörenden Artikel aus dem Vereinigten Königreiche ausgeführt:—

	Quantitäten	Werth
	Anzahl	£
Personenwagen	2,261	177,000
Güterwagen, Kohlenwagen	580	22,000
etc.		
Schienen, Spannstangen	330,588	2,627,000
Schienenlager und Schwellen	76,098	393,000
Räder und Achsen	4,872	118,000
Andere Arten von Eisenmaterial	23,000	412,000
Maschinerie: Dampfmaschinen und deren Theile	—	945,000
Locomotiven		

Den allgemeinen Fortschritt des Eisenbahnverkehrs im Vereinigten Königreiche während der letzten elf Jahre zeigt die folgende Zusammenstellung:—

	1855	1865
	Engl. Meilen	Engl. Meilen
Länge der dem Verkehr übergebenen Linien	8,280	13,289
Eingezahltes Gesamt-Capital, Actien, Anleihen etc.	297,584,000	455,478,000
Anzahl der beförderten Passagiere	118,595,000	251,960,000
Anzahl der Reisenden per Englische Meile	14,323	18,960
Total-Verkehrs-Einnahmen	21,507,000	35,731,000
„ Betriebs-Ausgaben	10,299,000	17,149,000
„ Netto-Einnahmen	11,208,000	18,582,000

Unter den neueren Verbesserungen verdienend erwähnt zu werden: die Anwendung von Stahl für Schienen, Felgen (Radschienen) etc. und die Erfindung einer Central-Schienen-Vorrichtung zum Gebrauch auf abschüssigen Flächen.

Im Locomotivenbau wurden auch bedeutende Verbesserungen gemacht. Mr. Humber, in seinem jüngsten Werke über modernes Maschinenwesen, führt folgende an: Einrichtung der Locomotiven zum Feuern mit Steinkohlen statt des Cokes und zum Verbrennen ihres eigenen Rauchs; Erhitzen des Wassers durch überflüssigen Dampf (Dampfauslassung); Ausgleichung der wechselseitig sich drehenden Theile der Maschine, wodurch das Abnutzen der Bahn und Maschine bedeutend verringert und sicher fortdauernde grosse Geschwindigkeit möglich gemacht werden; Ueberhitzung des Dampfes auf seinem Wege nach den Cylindern, um dessen normale Hitze zu erhalten und die durch Condensation verursachte Kraftabnahme zu verhindern.

Klasse LXIV.

TELEGRAPHISCHE APPARATE UND VERFAHRUNGSWEISE.

Die Jury für Klasse 13 in der Londoner Ausstellung im Jahre 1862 erklärte, dass seit der Ausstellung von 1851 weder grosse Entdeckungen in der Wissenschaft der Electricität stattgefunden, noch irgend welche allgemeine Grundsätze eine practische Anwendung gehabt hätten. Dahingegen hatte eine grosse Ausdehnung des Telegraphensystems sowohl, als die Einführung der unterseeischen Kabel stattgefunden. Das grösste Werk seit 1862 ist unzweifelhaft die erfolgreiche Vollendung des unterseeischen Telegraphen zwischen der alten und neuen Welt. Der dritte im Jahre 1866 gemachte Versuch, eine telegraphische Verbindung zwischen Irland und Newfoundland, eine Entfernung von 1,670 Englischen Seemeilen, herzustellen, gelang vollkommen, denn nicht allein wurde ein unterseeisches Kabel gelegt, sondern das im vorhergehenden Jahre verunglückte ward den Tiefen des Oceans entwunden und mit den Küsten der neuen Welt verbunden, auf diese Weise eine doppelte Verbindungslinie bildend. Die grösste aufgefundene Wassertiefe war 2,400 Klafter, oder weniger als 2½ Seemeilen. Das erste im Jahre 1858 gelegte Kabel arbeitete ungefähr drei Wochen lang vollkommen fort, als es plötzlich den Dienst versagte. Das im Jahre 1865 zum Theil gelegte zweite brach in Mitten des Oceans entzwei. Das im Jahre 1858 gemachte war von viel leichter Arbeit als die nachfolgenden; die Bruchwiderstandskraft desselben betrug nur 3 Tonnen 5 Centner oder, per Knoten, 485 Mal dessen Wassergewicht, während die des 1865-Kabels 7 Tonnen 15 Centner und die

des im Jahre 1866 gelegten 8 Tonnen 2 Centner betrug, das heisst, elfmal deren eigenes Wassergewicht per Knoten. Die Eigengeschwindigkeit des Kabels von 1866 mit den jetzigen verbesserten Instrumenten ist, der Angabe der 'Atlantic Telegraph Company' zufolge, nicht weniger als acht Worte per Minute.

Nach einem durch das 'Board of Trade' (Handelsministerium) ausgegebenen Berichte bestanden (die Eisenbahn- und Privatlinien ausgeschlossen) im Jahr 1865 16,953 Meilen Telegraphenlinien im Vereinigten Königreiche, mit 80,123 Meilen Drähten und ungefähr 8,000 Instrumenten. Die Zunahme von Privat-Telegraphen in London und andern grossen Städten war während der letzten Jahre sehr bedeutend. Grosse Verbesserungen wurden auch in allen telegraphischen Apparaten gemacht.

Klasse LXV.

CIVIL-INGENIEURKUNST, ÖFFENTLICHE ARBEITEN UND ARCHITECTUR.

Die Fortschritte, welche man im Vereinigten Königreiche in der Civil-Ingenieurkunst, in den öffentlichen Arbeiten und der Baukunst seit der letzten Pariser Ausstellung gemacht, sind so umfassend, dass es keine leichte Aufgabe ist, davon in wenigen Zeilen eine entsprechende Ansicht zu geben. Die rasche Ausdehnung der Eisenbahnverbindungen, die so wesentlich den Handel und Personenverkehr befördern, ist eine der Hauptursachen dieses Fortschritts.

Man könnte hier viele bedeutende Ingenieur-Arbeiten in allen Theilen des Landes anführen. In London allein wurden fünf neue Eisenbahn- und zwei neue Fussgängerbrücken, über die Themse führend, errichtet, und eine dritte in Blackfriars ist gegenwärtig im Bau begriffen. Die neue Brücke in Westminster für Fussgänger und viele andere zum grossen Theil aus Eisen gebaute Brücken zeichnen sich durch Kühnheit des Entwurfs und Neuheit der Construction aus. Ein bemerkenswerther Umstand bei einigen neuen Eisenbahnbrücken ist, dass sie ganz auf Pfeilern ruhen, die durch hohle eiserne in den Fluss gesenkte Caissons gebildet werden, ohne Beihülfe von äusserem Mauerwerk irgend einer Art. Diese Caissons werden nachher mit sogenanntem 'Concrete' oder Mauerwerk ausgefüllt und bilden dann zusammen gigantische die Brücke stützende Säulen. Die Wichtigkeit, Zierde mit Nützlichkeit zu verbinden, ist dabei nicht unberücksichtigt geblieben; an vielen Stellen zeigt das zu den Oberbauten verwendete Eisenwerk ungewöhnlichen Geschmack und bekundet daher einen sehr entschiedenen Fortschritt in der Brückenbaukunst. Drei andere wichtige Werke, nämlich: die unterirdische Eisenbahn, die Eindämmung der Themse und das grosse

Kloakensystem, sollten auch als Fortschrittsbeweise erwähnt werden. Die unterirdische Eisenbahn befindet sich zum grossen Theil unter den Hauptverkehrsstrassen der Stadt und wird, wann zu Ende geführt, den innern Kreis des Eisenbahnnetzes Londons bilden. Der Theil, welcher dem Verkehr zwischen dem Ost- und Westende der Stadt bereits geöffnet ist, hat alle Erwartungen, was öffentliche Nützlichkeit und Gewinn für die Unternehmer betrifft, bei weitem übertroffen. Die Eindämmung der Themse, welche auf der Nordseite des Flusses schon ziemlich vorgerückt ist, wird eine imposante Fahrstrasse von Westminster nach der City bilden, und der Haupt-Abzugs-Canal, wann einst zu Ende geführt, die Reinheit des Themsewassers hoffentlich wieder herstellen. Man arbeitet fortwährend an der Erweiterung von Docks und Häfen, und das Parlament bewilligt jährlich grosse Summen für den Bau von Zufluchtschiffen und Dämmen. Unter den bereits vollendeten oder im Bau begriffenen mögen die Werke in Portland, Dover und Holyhead erwähnt werden. Die Gesamtzahl der Leuchttürme an den Küsten des Vereinigten Königreichs, ohne die Privat-Hafenleuchten, ist 212, ausser 42 schwimmenden Leuchtschiffen.

Was Baukunst betrifft, so wurden bei öffentlichen Bauten aller Art grosse Verbesserungen angebracht, so dass die neuen Gebäude Londons mit den in andern Theilen der Welt errichteten füglich den Vergleich bestehen können. Die neuen Eisenbahnhöfe der Hauptstadt verrathen einen hohen Grad von Ingenieur-talent; während die in Verbindung mit denselben errichteten grossen Hotels den betreffenden Architekten sehr zur Ehre gereichen. Die neuen Regierungsgebäude, Kirchen, Banken, Versicherungs-Comptoire, Clubhäuser, Wohngebäude, Concert-Säle und Modell-Wohnhäuser, die man während der letzten zehn Jahre errichtete, verdienen ebenfalls Erwähnung als Beweise des Fortschritts. Diese Gebäude, welche in Beziehung auf Grösse die früheren bei weitem übertreffen, zeichnen sich auch dadurch aus, dass, was Entwurf und Verzierungsart im Allgemeinen betrifft, die Principien der Kunst dabei mehr zur Geltung gebracht worden sind. Farbiger Marmor und gebrannte Erde wurden mit grossen Erfolg zu Verzierungs-zwecken an vielen Gebäuden angewendet. Die neuen Museums-Gebäude, zu Kensington gegenwärtig im Bau begriffen, welche nach Vollendung eine der Hauptzierden Londons ausmachen werden, zeugen von der nützlichen Anwendung der gebrannten Erde and des farbigen Marmors.

In genauer Verbindung mit den Werken dieser Klasse steht das vor kurzem gebildete 'Metropolitan and Local Board of Works and of Health,' eine Behörde, die es sich zur Aufgabe gemacht, über den allgemeinen und gesundheitlichen Zustand der ihr anvertrauten Districte zu wachen, Schritte zu thun, den Uebelstand des Rauchs zu vermindern, Verbesserungen in den öffentlichen Parks und Gärten anzuordnen

und andere allgemeine Massregeln zum Wohl der Bevölkerung durchzuführen.

Die Fabrication von Schlössern, welche in dieser Klasse ausgestellt sind, ist ein Geschäft von grosser Wichtigkeit und wird hauptsächlich in Wolverhampton und andern Städten des südlichen Staffordshire betrieben.

Die folgenden Auszüge aus einem Bericht des Herrn J. C. Tiddesley an die 'British Association,' vom Jahre 1865, liefern eine sehr vollständige Uebersicht über die Hauptzweige der Schlösser-Fabrication im Vereinigten Königreich:—

Fabricationsplätze und Beschreibung der Schlösser	Zahl der Meister	Etwaige Zahl der Arbeiter	Durchschnittlicher Wochenlohn
Wolverhampton:			s. s.
Beste Schubladen- und Schrankschlösser . . .	20	400	25 bis 40
Band- und Hebel-schlösser, Platten . . .	50	800	25 „ 40
Willenhall (Short Heath etc. eingeschlossen):			
Band-, Einsteck-, Schieb-, Anhäng- u. Schubladenschlösser	275	3,000	18 „ 30
Walsall (Blowich eingeschlossen):			
Eiserne Anhäng- und Schrankschlösser . . .	25	400	18 „ 30
Wednesfield:			
Eiserne Kistchen-schlösser und Schlüsselschlösser . . .	50	200	15 „ 25
Brewood:			
Platten . . .	30	150	18 „ 28
Summa . . .	460	4,950	

‘Der wöchentliche Gesamttertrag von Schlössern in diesem District wird folgendermassen geschätzt: Anhängschlösser, 24,000 Dutzend; Kistchen-, Schubladen- und Kastenschlösser, 3,000 Dutzend; Band-, Einsteck- und Schieb-schlösser, 3,000 Dutzend; Platten, 1,000 Dutzend, und sichere Hebelschlösser und andere Sorten, 500 Dutzend; eine Gesamtproduction von 31,500 Dutzend Schlössern per Woche.

‘Vielleicht sind in keinem Zweige localer Industrie die Vortheile der neuen Erfindungen in der Mechanik weniger benutzt worden, als in der Schlösserfabrication. In den meisten Fällen werden dieselben gerade so angefertigt, wie vor zwanzig Jahren. Dem Umstande, dass dieses Geschäft hauptsächlich in den Händen kleiner Capitalisten liegt, muss der Mangel an Unternehmungsgeist und Fortschritt, welche andere Zweige localer Industrie auszeichnen, grossentheils zugeschrieben werden. Die seit Kurzem stattgefundenere Verbreitung des Schlössergeschäfts in Lancashire, London und andern Districten wird jedoch ohne Zweifel dort eine Reform in der Fabricationsweise hervorbringen. Die Lage der mit diesem Industriezweig beschäftigten Arbeiter hat sich in den letzten Jahren sehr gebessert, aber dennoch muss in dieser Beziehung noch Manches geschehen.’

Was die Anwendung der Kunst auf Schlös-

serfabrication betrifft, so ist auch da noch Raum zu grosser Verbesserung in Zeichnung sowohl als Verzierung, wenn auch andererseits die nützlichen Eigenschaften dieser wichtigen Gegenstände anerkannt werden müssen. Was vorzüglich Schlösser anbetrifft, so sind die von den Herren Chubb & Hobbs verfertigten zu bekannt, um einer weitem Beschreibung zu bedürfen.

An Baumaterialien liefert das Vereinigte Königreich ausser Steinen, Schiefer, Kalk etc. jährlich grosse Quantitäten von Backsteinen und Ziegeln. Bauholz wird hauptsächlich von Nord-Amerika und der Ostsee eingeführt. Die Importation von fremden Baumaterialien im Jahr 1865 war wie folgt:—

Einfuhr.

	Quantitäten	Werth
Marmor, roh . . . Tonnen	9,994	£ 74,085
„ gesägt etc. Centner	40,572	29,043
Holz und Bauholz, nicht gesägt und gespalten, mit Einschluss des Ostindischen Eichenholzes ('teak') . . Lasten	1,685,000	5,570,000
Do. Dielen, Latten etc., gesägt und gespalten . . . „	2,136,000	6,559,000
Do. Lattenholz . . . „	105,000	206,000

Ausfuhr (Britisches Erzeugniss).

	Quantitäten	Werth
Backsteine . . . Tausend	33,221	£ 86,245
Cement . . . Centner	2,257,000	285,898
Steine :		
Schiefer, der Anzahl nach . . . Tausend	7,134	49,664
Schiefer, dem Gewicht nach . . . Tonnen	2,544	11,061
Andere Sorten . . . Werth	—	91,016
Kreide und Kalk . . . Tonnen	14,425	8,683
Ziegel für Dächer und Pflaster . . . Tausend	1,167	8,347
Abzugsröhren etc. . . Anzahl	454,000	27,066

Klasse LXVI.

SCHIFFFAHRT; RETTUNGSBÖTE.

Die Umwälzung im Bau von Kriegsschiffen während der letzten zehn oder funfzehn Jahre ist so bekannt, dass eine Bezugnahme darauf hier unnöthig erscheint; es mag, jedoch, erwähnt werden, dass die neue Methode, Kriegsschiffe zu bauen, ein grosses Geschäft in Panzerschiffen im Vereinigten Königreiche hervorgerufen hat.

Die folgende Tabelle zeigt die Anzahl der Panzerschiffe, welche zur königlichen Flotte gehören und auf der See oder im Bau begriffen sind, nach einem im Jahre 1866 dem Parla- mente erstatteten Berichte:—

	No.	Tonnen- gehalt	Kanonen
Auf der See			
Panzerschiffe:			
Ganz mit Eisen be- kleidet . . . }	13	49,782	219
Theilweise mit Eisen bekleidet . }	17	59,485	258
Schwimmende Batte- rien:			
Ganz mit Eisen bekleidet . . . }	4	7,367	62
Im Bau begriffen			
Panzerschiffe:			
Ganz mit Eisen bekleidet . . . }	2	9,732	12
Theilweise mit Eisen bekleidet . }	2	8,223	22

Ein Schiff nach Captain Coles' Cupolaplan ist in der Zahl der Schiffe 'auf der See' eingeschlossen; zwei nach demselben Principe sind im Bau begriffen, alle drei ganz mit Eisen bekleidet.

Abgesehen, jedoch, von der Berücksichtigung der Kriegsschiffe, zu Vertheidigungs- und Handelsschutzzwecken bestimmt, muss ein Land, welches in seinem einheimischen und fremden Handel jährlich nahe an 50 Millionen Tonnen verladet, ein lebhaftes Interesse am Schiffbaugeschäfte nehmen. Die Hauptplätze für den Schiffbau sind an der Themse, an der Humber, Tyne, Wear, Tees, Severn, Mersey und Clyde, und zu Dundee, Belfast und in andern Häfen des Königreichs.

Der Tonnengehalt der Handelsschiffe, welche zum Vereinigten Königreich und zu den Inseln in den Britischen Meeren gehören, war am 31. December 1865 :—

	Gesamt- Tonnengehalt
Segelschiffe . . .	4,937,000
Dampfschiffe . . .	824,000
Summa . . .	5,761,000

Von der Wichtigkeit des Schiffbaues als Industrie kann man sich einen Begriff machen, wenn man bedenkt, wie viele neue Schiffe jährlich im Lande gebaut werden. Die folgende Zusammenstellung zeigt die Anzahl der im Vereinigten Königreich gebauten und während der letzten drei Jahre registrirten Schiffe :—

Jahre	Segelschiffe		Dampfschiffe	
	Schiffe	Tonnen	Schiffe	Tonnen
1863 . . .	883	255,000	280	110,000
1864 . . .	873	272,000	376	161,000
1865 . . .	922	236,000	382	180,000

Unter den im Jahre 1865 gebauten Schiffen wurden 844 von 153,000 Tonnen aus Holz gebaut, und 460 von 262,000 Tonnen aus Eisen. Das zum Bauen eiserner Schiffe benutzte Holz bringt das Land hervor, für die hölzernen Schiffe bedient man sich gewöhnlich des ausländischen. Grosse Quantitäten von Hanf, Werk

etc. für Seile und Tauwerk werden auch eingeführt, worüber eine Nachweisung unter Klasse 55 zu finden ist.

Man hat keine neueren Tabellen über die Anzahl der im Schiffbau etc. im Vereinigten Königreich beschäftigten Personen. Nach dem Census von 1861 war die ganze Anzahl der in dem Schiff-, Boot-, Barkenbau und der Masten- und Segelfabrication beschäftigten Personen wie folgt:—

Provinzen	Männer	Frauen	Summa
In England und Wales	43,704	75	43,779
Schottland	9,148	6	9,154
Irland	2,220	9	2,299
Summa	55,072	90	55,232

Die folgende Tabelle über die Durchschnitts-Wochenlöhne der Arbeiter im Schiffbau ist den Berichten entnommen, welche die respectiven Handelskammern im Jahre 1866 dem 'Board of Trade' (Handelsministerium) erstatteten:—

Beschreibung der Beschäftigung	Per Woche	
	s.	s.
Schiffbauer	In Hull . . .	. 33
	„ Bristol . . .	. 30
	„ Glasgow . . .	. 30
	„ Dundee . . .	. 24 bis 26
Schiffschmiede	„ Belfast . . .	. 33
	„ Hull . . .	. 27 „ 33
	„ Bristol . . .	. 28
	„ Glasgow . . .	. 20 „ 32
Zuschläger und Hülfsarbeiter	„ Dundee . . .	. 24 „ 30
	„ Belfast . . .	. 26
	„ Hull . . .	. 15 „ 18
	„ Bristol . . .	. 18
Säger	„ Glasgow . . .	. 14 „ 18
	„ Dundee . . .	. 16
	„ Belfast . . .	. 16
	„ Hull . . .	. 27 „ 33
Schreiner	„ Bristol . . .	. 24
	„ Dundee . . .	. 24
	„ Belfast . . .	. 22
	„ Hull . . .	. 26 „ 28
Schiffszimmerleute	„ Bristol . . .	. 30
	„ Glasgow . . .	. 24 „ 29
	„ Dundee . . .	. 23
	„ Belfast . . .	. 30
Aufseher	„ Hull . . .	. 33
	„ Bristol . . .	. 30
	„ Dundee . . .	. 24 „ 25
	„ Hull . . .	. 42 „ 63
Lehrjungen	„ Bristol . . .	. 42
	„ Dundee . . .	. 30 „ 45
	„ Belfast . . .	. 39
	„ Hull . . .	. 5 „ 10/6
Arbeiter	„ Glasgow . . .	. 8 „ 12
	„ Dundee . . .	. 6 „ 12
	„ Belfast . . .	. 5 „ 10
	„ Hull . . .	. 18 „ 21
	„ Bristol . . .	. 16
	„ Glasgow . . .	. 12 „ 16
	„ Dundee . . .	. 13 „ 15

Beschreibung der Beschäftigung	Per Woche	
	s.	s.
Kesselmacher	In Bristol . . .	. 36
	„ Glasgow . . .	. 28 bis 30
	„ Dundee . . .	. 27
Winkeleisen-schmiede	„ Glasgow . . .	. 24 „ 29
	„ Dundee . . .	. 27
	„ Glasgow . . .	. 26
Nietschmiede	„ Dundee . . .	. 23
	„ Bristol . . .	. 18
Halter	„ Glasgow . . .	. 16
	„ Dundee . . .	. 15

Indem wir den Fortschritt erwähnen, der während der letzten Jahre im Schiffbau gemacht worden ist, dürfen wir nicht vergessen, dass ausser der Construction einer Panzerflotte die Regierung beinahe alle zur königlichen Marine gehörenden Segelschiffe in Schraubendampfschiffe umgewandelt und so eine mächtige Dampfflotte für das Land geschaffen hat.

In der allgemeinen Construction ist das durch Mr. Scott Russell eingeführte Wellenliniensystem von den Schiffbauern allgemein eingeführt worden; die Anwendung von Eisen macht es möglich, dass Schiffe jetzt viellänger und in schöneren Linien gebaut werden können, daher die Segel-, Dampf- und Tragkraft erhöht und zugleich ein günstigeres commercielles Resultat erzielt wird. Unter den neuesten Erfindungen und Verbesserungen verdienen Erwähnung: die Zwillingsschrauben-Schiffe, das Cigar-Schiff, die Anwendung von Stahl- statt der Eisenplatten zum Bekleiden der Schiffe und die neue Methode hydraulischer Propellation. Das königliche Schiff 'Waterwitch,' nach letzterem Principe gebaut, hat vor kurzem einige erfolgreiche Excursionsversuche gemacht; die Maschinerie besteht aus einer Turbine, der 'Ruthven propeller' genannt, welcher das Wasser durch den Boden des Schiffes einzieht und durch Oeffnungen an beiden Seiten desselben etwas über der Wasserlinie wieder auswirft.

Unter den Auspicien des Französischen Marine-Ministers, M. le Marquis de Chasseloup-Laubat, und unter der Präsidentschaft des Admirals La Roucière le Noury, hat vor kurzem in Paris eine internationale Commission über See-Signale berathen. Mr. W. Larkins, vom 'Board of Trade,' und M. Sallandrouze de Lamornaix, von der Französischen kaiserlichen Marine, waren durch die Commission mit der Revision und Verbesserung des Signalbuches beauftragt worden. Der 'International Commercial Code of Signals,' zum Austausch von Mittheilungen zur See oder mit den Küstenstationen und Semaphoren, ist seitdem an Bord der Kriegs- und Handelsschiffe aller Nationen eingeführt worden.

Dieser Code unterscheidet sich von anderen bisher benutzten Coden dadurch, dass die Code-Flaggen mit Buchstaben B, C, D etc. anstatt mit Zahlen 1, 2, 3 etc. bezeichnet sind.

Der Vortheil der Buchstaben besteht darin, dass 18 bestimmte Zeichen erhalten werden können, vermittelt welcher (2, 3 und 4 zusammen genommen) 78,642 verschiedene Combina-

tionen, Signale zu geben, möglich werden, jedes Signal vollständig bleibt und keins mehr als vier Flaggen zum Aufziehen bedarf.

Durch den ganzen Code ist das Princip aufrecht gehalten, dass die Form des Aufzugs ('hoist') die Bedeutung des Signals enthalten soll, gleichviel ob der Aufzug aus 2, 3 oder 4 Flaggen besteht. Zum Beispiel, ein Signal, durch zwei der Code-Flaggen gegeben, sollte immer besonders beachtet werden, weil alle Zwei-Flaggen-Signale die wichtigsten sind.

Und weiter, in Aufzügen von 4 Flaggen, wenn die Flagge B (den Namen des Schiffs tragend, Englisch 'burgee') am höchsten weht, wird das Signal immer ein *geographisches* sein.

Wenn eine der 13 Quadrat-Code-Flaggen in einem Aufzug von vier Flaggen am höchsten weht, so wird das Signal immer einen *Schiffsnamen* anzeigen.

Eine Code-Liste von Schiffen, als Anhang zum Signalbuche veröffentlicht, giebt den Namen jeden Schiffes, seinen Tonnengehalt und, wenn ein Dampfschiff, die Pferdekraft an. Der Code ist umfassend genug, um für Schiffsnamen *ausschliesslich* die Anwendung von mehr als 40,000 verschiedenen Signalen zuzulassen.

Die Regierungen von Frankreich und Grossbritannien haben (wie dies vor einigen Jahren, hinsichtlich der Dampfschiffalaternen, geschehen war) eine gemeinschaftliche Note an die Regierungen der grösseren Seestaaten gerichtet, in welcher sie die allgemeine Einführung des Commercialen Code, zur Feststellung eines gleichförmigen internationalen Seesignal-Systems, anempfehlen.

Frankreich hat zuerst diesen Code (unter Ausschluss aller andern) an Bord der Französischen Schiffe und bei allen Semaphor-Stationen angenommen, und Spanien, Portugal und Italien haben ihre Absicht schon kundgegeben, das Beispiel Frankreichs zu befolgen.

Noch eine andere Neuerung im Commercialen Code muss erwähnt werden. Wenn es unmöglich ist, die *Farben* der Flaggen zu erkennen, so bestimmt ein anderer Code hinsichtlich der Entfernung-Signale. Dies wird bewerkstelligt durch das Aufziehen von 1 oder 2 schwarzen Kugeln in Verbindung mit zwei der Code-Wimpeln oder Flaggen; und diese Signale können, zugleich mit den an den Küsten Frankreichs schon bestehenden Semaphoren, benutzt werden, indem man den im Signalbuch erklärten Code Entfernung-Signalen einfach anpasst.

Den 'Commercial Code' drucken und verlegen Herr W. Mitchell, 54 Gracechurch-street, London, und die Herren Galignani, in Paris.

Eine sehr wichtige Klasse von Gegenständen, welche in dieser Section der Ausstellung erscheinen, ist die der Rettungsböte und Apparate, um Menschenleben auf der See zu retten.

Für ein Land, welches ausser seinen weit verbreiteten Fischereien an allen Theilen der Küste einen grossen Küsten- und ausländischen Handel besitzt, muss die Beschaffung hinreichender Mittel, hilfsbedürftigen Schiffen

Beistand zu leisten, ein Gegenstand von hoher Wichtigkeit sein. Ein einziger Blick in die jährliche Liste der Schiffbrüche wird genügen, um sich von dem Werke, welches die Rettungsböte zu vollbringen haben, eine Vorstellung zu machen.

Die Gesamtzahl der im Jahre 1865 verlorenen und beschädigten Schiffe war 2,012, und die der Verluste an Menschenleben 698. Von letzteren kamen 275 um in gescheiterten Schiffen, 53 an Bord von Schiffen, die gegen andere anrannten, 335 in gestrandeten oder an die Küste geworfenen und 35 auf andere Weise. Wenn wir bedenken, dass dieser Verlust an Menschenleben zu einer Zeit möglich war, in welcher unser Rettungsboot-System sich im höchsten Zustand der Kraftentwicklung befand, so erscheint es klar, dass noch viel geschehen muss, um unsere Mitmenschen in der Erfüllung ihres mühseligen Berufs gegen einen vorzeitigen Wellentod zu schützen.

Die Unterhaltung der Rettungsböte an den Küsten des Vereinigten Königreichs steht unter der Aufsicht des Königlichen Nationalen Rettungsboot-Instituts, welches durch freiwillige Beiträge erhalten wird. Während der letzten zehn Jahre sind grosse Verbesserungen in der Construction der Rettungsböte gemacht worden, und die Gesellschaft hat viele neue Böte an gefährlichen Stellen der Küste aufgestellt, wo bis jetzt nach keine Mittel vorhanden waren, Schiffen in der Noth Hülfe zu leisten. Die Gesamtzahl der dem Institut gehörenden Böte an den verschiedenen Theilen der Küsten des Vereinigten Königreichs belief sich (November 1866) auf 172, von welchen 125 auf England und Wales, 19 auf Schottland und 28 auf Irland kamen. Zwanzig andere Rettungsböte existirten zur selben Zeit in den verschiedenen Theilen des Königreichs, welche durch Privatmittel angeschafft worden waren. Ausser diesen Rettungsböten unterhält der 'Board of Trade' 249 Raketen-Apparat-Stationen, welche unter der Leitung der Küstenwachmannschaft stehen. Modelle verbesserter Rettungsböte, auch Raketen- und andere Apparate zur Rettung von Menschenleben auf der See, sind unter dieser Klasse ausgestellt.

Die Anzahl der durch Rettungsböte des Instituts im Jahre 1865 Geretteten war 532, durch Küstenböte 182 und durch Raketen-Apparate 180.

Die Kosten für Errichtung einer Rettungsboot-Station betragen 620£, welche sich in folgender Weise vertheilen:—

Rettungsboot und dessen Ausrüstung, einschliesslich der Rettungsgürtel für die Mannschaft und Transportwagen für das Rettungsboot	£ 420
Boothaus (Durchschnittspreis)	200
	£620

Die jährlichen Durchschnittsausgaben für Unterhaltung einer Rettungsboot-Station betragen 50£.

GRUPPE VII.

(KLASSEN LXVII. bis LXXIII.)

FRISCHE ODER AUFBEWAHRTE NAHRUNGSMITTEL IN IHREN
VERSCHIEDENEN AUFBEWAHRUNGSZUSTÄNDEN.

Klasse LXVII.

GETREIDE UND ANDERE ESSBARE MEHL-
HALTIGE, SOWIE DIE AUS DENSELBEN
ERHALTENEN PRODUCTE.

Die in dieser Klasse ausgestellten Gegenstände nehmen grosses Interesse in Anspruch, indem dieselben in genauer Verbindung mit der Fähigkeit des Landes stehen, eines der Hauptnahrungsmittel der Bevölkerung zu produciren; denn obgleich das Erzeugniss der Getreideernten im Vereinigten Königreich den Bedarf der Bevölkerung nicht deckt, so ist dennoch ein grosser Flächenraum des Landes deren Cultur vorbehalten. Bis zum Jahr 1866 waren keine vollständigen Berichte über das im ganzen Königreich angebaute Ackerland ('acreage') erschienen. Die folgende Tabelle zeigt den mit den verschiedenen Getreidearten in jenem Jahre angebauten Flächenraum in den verschiedenen Provinzen des Vereinigten Königreichs an:—

Provinzen	Bebautes Ackerland (Statutenacker)			
	England	Wales	Schottland	
Weizen .	3,161,431	113,862	110,101	
Gerste .	1,877,387	146,323	213,619	
Hafer .	1,503,990	251,893	1,004,040	
Korn .	50,570	2,452	7,055	
Bohnen .	492,586	3,534	28,537	
Erbsen .	314,206	3,010	3,188	
Summa .	7,400,170	521,074	1,366,540	
	Irland	Insel Man	Jersey	Guernsey etc.
Weizen .	300,474	8,075	2,702	990
Gerste .	152,777	7,736	111	532
Hafer .	1,697,648	11,010	288	428
Korn .	7,753	9	13	27
Bohnen .	12,175	320	15	43
Erbsen .	2,606	116	13	21
Summa .	2,173,433	27,266	3,142	2,041

Es giebt keine Zusammenstellungen über die Quantitäten der im Lande erzeugten

verschiedenen Getreidearten; aber für Weizen wird der Ertrag in England, Wales und Schottland auf 27 Buschel and in Irland auf 25 Buschel per Acker geschätzt.

Dies würde einen annähernden Ertrag von etwa 12,320,000 Quarter für das Vereinigte Königreich, ausschliesslich der Insel Man und der Canal-Inseln, abgeben.

Die folgende Tabelle zeigt das Verhältniss der Getreideernten zu dem Gesamt-Flächenraum des Landes unter Anbau und des Weidelandes:—

	Gesamt- Flächenraum unter verschiede- nem Anbau, nacktes, Brach- und Grasland	Procente des Total- Flächenraums unter Getreideanbau
England . . .	Acker 22,262,000	33·3
Wales . . .	2,284,000	22·8
Schottland . . .	4,158,000	32·9
Insel Man . . .	83,000	32·9
Canal-Inseln:		
Jersey . . .	20,900	15·4
Guernsey . . .	12,000	17·0
Irland . . .	*15,549,000	14·0

* Dieser Flächenraum schliesst die in den andern Berichten nicht angegebenen Hügelscheiden ein und lässt daher den Procentertrag geringer erscheinen, als er wirklich sein würde, hätte man ihn nach der in den andern Provinzen des Königreichs angenommenen Basis berechnet.

Die Haupt-Getreidedistricte Englands liegen in den östlichen und südöstlichen Theilen des Landes; die Midland- und westlichen Grafschaften bringen auch Korn hervor, jedoch bildet Wiesenland einen grossen Theil ihres Flächenraums. In Schottland besteht dieselbe Abtheilung; Getreide wird hauptsächlich in den östlichen Grafschaften angebaut, Gras wächst in den südlichen und südwestlichen Theilen. In Irland liegen die Getreidedistricte in den nördlichen und südlichen Theilen der Insel.

Die folgenden Auszüge aus Mr. Caird's Werk über Englische Landwirtschaft bieten eine vollständige Uebersicht über die Veränderungen, welche das Landwirtschaftswesen

im Laufe dieses Jahrhunderts erfahren hat. Beim Vergleichen der von ihm 1850–51 und durch Herrn A. Young im Jahre 1772 aus 26 Grafschaften Englands gesammelten Berichte ist folgender Fortschritt bemerkbar:—

		1770	1850
Pacht von angebautem Land } per Acker	s. d.	s. d.	
	13 4	26 10	
		Bushels	Bushels
Ertrag an Weizen	23 0	26½	
Arbeitslohn im Durchschnitt } per Woche	s. d.	s. d.	
	7 3	9 7	
Hausmiethe	0 8	1 5	
Preis von Brod per Pfund	0 1½	0 1½	
„ Fleisch	0 3¼	0 5	
„ Butter	0 6	1 0	

‘Es geht hieraus hervor, dass in einem Zeitraum von 80 Jahren der Durchschnitts-Pachtzins von Ackerland um 100 Procent gestiegen ist, der Durchschnittsertrag von Weizen per Acker um 14 Procent zugenommen hat, der Arbeitslohn um 34 Procent und die Hausmiethe um 100 Procent, während der Preis des Brotes, das Hauptnahrungsmittel des Englischen Tagelöhners, ungefähr derselbe geblieben ist, wie im Jahre 1770. Der Preis der Butter ist um 100 Procent in die Höhe gegangen, des Fleisches um etwa 70 Procent und der Wolle um mehr als 100 Procent. Seit 1850 haben die Butter-, Fleisch- und Wollpreise eine weitere bedeutende Steigerung erlitten.

‘Die Zunahme um 14 Procent im Durchschnittsertrag von Weizen per Acker zeigt nicht die ganze erhöhte Production an. Die Ausdehnung des angebauten Landes im Jahre 1770 war ohne Zweifel viel geringer als jetzt; und der Ertrag, selbst damals, der durchschnittliche aus viel besserem Boden, da das beste Land natürlich zuerst angebaut wurde. Die Zunahme des Getreideertrags ist daher durch bessere Bodenzucht bewirkt worden, trotz dem entgegenwirkenden Einfluss durch das Bebauen unfruchtbarerern Bodens. Die erhöhte Ausdehnung des jetzt mit Weizen angepflanzten Bodens, verbunden mit dem grösseren Durchschnittsertrage, steht jedoch nicht im Verhältniss zu der Pachterhöhung in derselben Periode; und der Weizenpreis ist jetzt ziemlich derselbe wie damals. Wir müssen daher einen Blick in die Berichte über Viehzucht werfen, um diesen Widerspruch aufzuklären.

‘Während Weizen im Preise nicht gestiegen ist, haben sich die Preise für Fleisch, Butter und Wolle beinahe verdoppelt. Die producirte Quantität hat auch bedeutend zugenommen, da dasselbe Land grössere Kühe, schneller ausgewachsenes Vieh und Schafe von grösserem Gewicht, besserer Qualität und grösserem Wollertrage hervorbringt. Auf Milch-Pachthöfen oder solchen, welche mehr für Vieh- und besonders für Schafzucht geeignet sind, hat der Werth der jährlichen Production mit dem Pachtzins eher gleichen Schritt gehalten. In Betreff der Getreidepächter ist der Fall an-

ders. In früheren Zeiten wurde kräftiger Lehmboden als echtes Weizenland angesehen. Derselbe zahlte die höchste Pacht, den schwersten Zehnten und beschäftigte die grösste Anzahl von Arbeitern. Aber moderne Verbesserungen haben die Lage gänzlich verändert. Die Ausdehnung der Getreideernten sowie die Viehzucht haben die Productionseigenschaften des leichten Bodens dermassen gehoben, dass er jetzt Getreide bei geringeren Kosten als Lehmboden liefert, ausser dem Vortheile, dass der auf demselben unterhaltene Viehstand noch grossen Nutzen abwirft.

Der erste vollständige im Jahre 1866 ausgegebene Bericht zeigt, dass der im Vereinigten Königreiche mit Getreide angebaute Gesamt-Flächenraum 5,055,220 Acres war, von welchen 2,750,000 auf England, 139,265 auf Wales, 663,257 auf Schottland, 1,482,091 auf Irland, 12,208 auf die Insel Man, 5,253 auf Jersey und 2,938 auf Guernsey kamen.

Die Durchschnittspreise von Britischem Weizen, von Gerste und Hafer per ‘Imperial-Quarter,’ während der fünf Jahre 1861–65, waren:—

	Weizen	Gerste	Hafer
	s. d.	s. d.	s. d.
1861	55 4	36 1	23 9
1862	55 5	35 1	22 7
1863	44 9	33 11	21 2
1864	40 2	29 11	20 1
1865	41 10	29 9	21 10

Es ist schon erwähnt worden, dass die einheimische Production von Getreide im Vereinigten Königreich für den Bedarf der Bevölkerung nicht ausreicht und grosse Quantitäten daher eingeführt werden. Der jährliche Durchschnittswerth des in das Vereinigte Königreich importirten Getreides betrug, während der zwölf Jahre 1854 bis 1865, nicht weniger als 24,000,000/.

Die im Jahre 1865 eingeführten verschiedenen Sorten von Getreide und die Bezugsquellen sind in der folgenden Tabelle angegeben:—

Export-Länder	Für den Verbrauch eingeführte Quantitäten Centner
Weizen:	
Russland	8,160,000
Dänemark	647,000
Preussen	5,426,000
Frankreich	2,266,000
Britisch Nord-Amerika	307,000
Vereinigte Staaten	1,183,000
Andere Länder	2,946,000
Summa	20,935,000
Weizenmehl:	
Frankreich	3,058,000
Britisch Nord-Amerika	181,000
Vereinigte Staaten	262,000
Andere Länder	382,000
Summa	3,883,000

Export-Länder	Für den Verbrauch eingeführte Quantitäten Centner
Gerste:	
Dänemark . . .	1,550,000
Preussen . . .	770,000
Hansestädte . . .	400,000
Frankreich . . .	1,583,000
Türkei . . .	2,087,000
Andere Länder . . .	1,428,000
Summa . . .	7,818,000
Hafer:	
Russland . . .	1,963,000
Schweden . . .	3,090,000
Dänemark . . .	1,071,000
Preussen . . .	65,000
Holland . . .	726,000
Andere Länder . . .	796,000

7,711,000

Mais:	
Russland . . .	1,194,000
Moldau und Wallachei . . .	545,000
Türkei . . .	3,178,000
Vereinigte Staaten . . .	1,771,000
Andere Länder . . .	399,000

Summa . 7,087,000

Die in der obigen Tabelle angeführten Länder, Egypten ausgenommen, welches viele Jahre lang die grössten Quantitäten Weizen, Gerste und Mais lieferte, waren in den letzten funfzehn Jahre die Hauptquellen. Der Bürgerkrieg in den Vereinigten Staaten war die Ursache, dass die Getreideausfuhr von dort im Jahre 1865 bedeutend geringer war. Korn und Getreide ist einer Taxe von 3d., Mehl von 4d., per Centner unterworfen. Viel Reis, Sago, Tapioca, Semolina, Maccaroni und Vermicelli, welche keine Producte unseres Landes sind, werden ebenfalls importirt. Im Jahr 1865 wurden eingeführt:—

Artikel	Quantitäten	Werth
Reis, roh in der Hülse . Qr.	6,478	15,310
„ nicht in der Hülse. Ctr.	1,938,816	1,330,941
Sago	148,582	121,285
Tapioca	22,363	37,025
Semolina	2,453	2,773
Maccaroni und Vermicelli	7,786	18,012
Summa	—	1,525,346

Die Gesamtzahl der mit Landbau, d. h. im Anbau von Feldern und Wiesen, beschäftigten Personen war im Jahre 1861:—

Provinzen	Männer	Frauen	Summa
In England und Wales	1,457,075	376,577	1,833,652
Schottland . . .	215,716	120,773	336,489
Irland . . .	850,121	81,714	931,835
Summa . . .	2,522,912	579,064	3,101,976

Die Lage der Ackerbauarbeiter in allen Theilen des Landes war lange der Gegenstand ernster Erwägung. Als Nahrungszweig bietet der Landbau geringern Lohn als irgend eine andere Beschäftigung. Die Wochenlöhne in den verschiedenen Theilen des Landes schwanken sehr; aber selbst in denjenigen Districten, in welchen die höchsten bezahlt werden, ist die Lage des Arbeiters unbefriedigend.

Nach Berichten, welche im Jahre 1861 dem Parlamente vorgelegt wurden, bezahlte man folgende Löhne an die Ackerbauarbeiter der drei Provinzen:—

Höchste und niedrigste Durchschnittswochenlöhne, ohne Kost und Logis.

Provinzen und Districte	Männer		Frauen		Kinder unter 16	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Südöstl. District	10 0 bis	13 6	3 6 bis	6 0	2 6 bis	6 0
Süd - Midland - District	10 0	13 0	3 6	5 0	2 0	8 0
Oestlicher District	10 0	13 0	3 6	5 0	1 6	8 0
Südwestl. District	8 0	10 0	3 0	5 0	1 6	7 0
Westlicher Midland - District	9 0	12 0	3 0	5 0	2 0	6 0
Nördlicher Midland - District	12 0	15 0	4 0	6 0	1 6	8 0
Nordwestl. District	10 0	15 0	3 6	11 0	2 0	6 0
Nördlicher District	12 0	16 6	4 2	8 0	3 0	7 6
Welsh District	10 0	13 0	2 6	6 0	1 6	9 0
Wales	8 0	15 0	3 0	6 0	3 0	9 0
Schottland (ungefähr)	10 0	16 0	4 0	8 0	2 0	7 0
Irland (ungefähr)	5 7	10 2	2 9	5 0	1 7	4 0

Die wöchentlichen Verdienste für Extraarbeit sind zwischen 2s. und 5s. höher als obige Löhne. In der Ackerbauwissenschaft wurden im Vereinigten Königreich und namentlich in England und Schottland in den letzten Jahren grosse Fortschritte gemacht.

Die Einführung verbesserter Methoden, das Land zu bebauen, besonders in England und Schottland, ein abwechselndes Saatsystem, ausgedehntes Drainiren, die Anwendung künstlichen Düngers und die der Maschinen zu landwirthschaftlichen Zwecken, haben zusammengewirkt, den Ackerbau des Landes in eine viel günstigere Lage zu bringen, als dies früher der Fall war. Die vermehrte Viehzucht auf Pachthöfen hatte ebenfalls nutzbringende Resultate, und die vor kurzem gemachten Versuche, Lehm Boden vermittelst Dampfkraft zu cultiviren, soll der beste Erfolg gekrönt haben. Eine Notiz über landwirthschaftliche Maschinen, welche jetzt in grosser Anzahl überall im Lande angewandt werden, ist unter Klasse 48 zu finden. Die jährlichen Ausstellungen der Königlichen Landwirthschaftlichen

Gesellschaft, verschiedene internationale und andere Ausstellungen, welche seit 1851 stattgefunden, haben die Anwendung der besten Maschinen befördert und verbreitet, während die Forschungen bedeutender Chemiker und wissenschaftlicher Männer zu einem besseren Verständniss der Natur des Bodens geführt und dadurch sehr zum Gedeihen der Landwirtschaft im Königreiche beigetragen haben.

Klasse LXVIII.

BROT UND BACKWERK.

Während der letzten Jahre hat die Brotbäckerei mittelst Maschinerie rasch zugenommen. Unter den in der Londoner Ausstellung vom Jahre 1862 ausgestellten Brotmaschinen waren die zum Teigkneten bestimmten sehr gut representirt. Durch diese Maschinen soll an Mehl allein eine Ersparniss von 3 Procent erzielt werden. Ein Reiseofen zum Biscuitbacken wurde durch die Jury für Klasse 7 ebenfalls sehr empfohlen. Letztere sprach die Hoffnung aus, dass im Interesse der Gesundheit und Reinlichkeit sowohl, als auch zum Besten der in dem Geschäft angestellten Arbeiter, die Anwendung von Maschinerie zum Brotbacken allgemein angenommen werden möge. Die jährliche Consumption von Weizen und Weizenmehl zu Nahrungszwecken im Vereinigten Königreich wird auf etwa 20 Millionen Quarters, oder circa $5\frac{1}{2}$ Buschel per Kopf, geschätzt.

Die Anzahl der Bäcker und Zuckerbäcker in jeder Provinz des Königreichs war in 1861:—

	Bäcker	Zuckerbäcker
In England und Wales .	54,140	14,526
Schottland . . .	10,894	1,924
Irland . . .	9,293	1,547
Summa . . .	74,327	17,997

Ueber die Brotpreise bestehen keine officiellen Berichte. Der Durchschnittspreis von Weizen in England und Wales während der fünf Jahre 1861–65, per Quarter, war:—

	s.	d.
1861	55	4
1862	55	5
1863	44	9
1864	40	2
1865	41	10

Klasse LXIX.

FETTE SUBSTANZEN, ALS NAHRUNG GEBRAUCHT; MILCH UND EIER.

Essbare Oele werden im Vereinigten Königreich nicht producirt, und was die andern in diese Klasse eingeschlossenen Artikel betrifft, so ist der einheimische Ertrag derselben nicht ausreichend, den Bedarf der Bevölkerung zu

decken. Grosse Quantitäten von Butter, Käse und Eiern werden jährlich importirt. Die folgende Tabelle zeigt die importirten Quantitäten:—

Quantitäten und Werth der zum Verbrauch importirten Gegenstände.

Jahre	Olivenöl	Butter	Käse	Eier
	Quantitäten			
	Tonnen	Centner	Centner	Handert
1861	15,981	987,000	698,000	1,694,000
1862	20,077	1,024,000	695,000	1,936,000
1863	18,949	957,000	747,000	2,224,000
1864	15,726	1,038,000	826,000	2,794,000
1865	30,716	1,068,000	842,000	3,033,000
	Werth			
	£	£	£	£
	Handert	Handert	Handert	Handert
1861	908,600	4,874,000	1,618,000	550,000
1862	1,152,800	4,860,000	1,530,000	594,000
1863	1,085,800	4,402,000	1,863,000	673,000
1864	902,200	5,569,000	2,151,000	835,000
1865	1,616,900	5,871,000	2,432,000	928,000

Olivenöl wird hauptsächlich von Italien und Spanien, Butter von Holland, Belgien, Frankreich, Hamburg und Dänemark, Käse von Holland und den Vereinigten Staaten und Eier von Frankreich importirt.

Der Werth von exportirter Britischer Butter und von Käse während der fünf Jahre 1861–65 war:—

	Butter	Käse
	£	£
1861	466,000	130,000
1862	374,000	127,000
1863	472,000	157,000
1864	327,000	147,000
1865	333,000	111,000

Klasse LXX.

FLEISCH UND FISCH.

Obleich der Fleischverbrauch im Vereinigten Königreich sehr gross ist, so lässt sich doch die jährliche Consumption nicht mit Gewissheit angeben. Die hohen Fleischpreise in den letzten Jahren haben verschiedene Pläne, preservirtes Fleisch von Süd-Amerika einzuführen, in's Leben gerufen, sind aber bis jetzt ohne erhebliche Resultate geblieben.

Das Meer, welches die Küsten der Britischen Inseln umspült, liefert eine reiche Ausbeute von Fischen. Die Hauptarten sind: Kabeljau, Steinbutte, Seezungen, Mackrelen, Weissfisch, Häringe, Sprotten, Garnellen, Austern und Hummern. Dem Berichte einer vorkurzem ernannten Commission zufolge, um den Zustand der Britischen Fischereien zu untersuchen, soll die Ausbeute an Fischen an den Küsten von Grossbritannien in jährlichem Zunehmen begriffen sein. Die Abnahme im Austernfang während der letzten drei Jahre wird einer Reihenfolge von schlechten Zucht-

saisons zugeschrieben, für welche keine bestimmte Ursache angegeben werden kann.

Der Schottische und Irische Salmenfang ist auch von grosser Wichtigkeit; es bestehen aber keine Berichte über den jährlichen Ertrag desselben; grosse Quantitäten von Salmen gehen in's Ausland.

Die Hauptzweige des Britischen Fischhandels sind die Häring- und Pilscher-Fischereien; von diesen Fischen werden viele im Lande selbst consumirt und viele exportirt.

Seit der Ausdehnung der Eisenbahnverbindungen hat die Fisch-Consumtion sehr zugenommen, und die meisten grösseren Städte im ganzen Lande werden jetzt täglich mit frischen Fischen versorgt. Es bestehen keine Statistiken über die Englischen Fischereien, obgleich der Häringfang in Yarmouth und an andern Plätzen der Küste, sowie der Pilscherfang an den Küsten von Devon und Cornwall einer grossen Anzahl von Bötten und Fischern Beschäftigung gewähren. Ausser diesen beiden Zweigen des Fischfangs finden die Fischerböte Beschäftigung; denn man fängt auch Mackrelen, Steinbutten, Seezungen, Kabeljau u. s. w. zu andern Jahreszeiten. Die Zahl der mit der Versorgung des Londoner Marktes beschäftigten Fischerböte wird auf 800 bis 900 geschätzt; den jährlichen Durchschnittsfang zu 90 Tonnen angenommen, giebt dies einen Gesamtertrag von etwa 80,000 Tonnen Fischen, ohne die grossen Quantitäten von Häringen, Sprotten, Schalthieren und sonstigen in's Gebiet der Fischereien gehörigen Fische.

Die folgende Tabelle giebt die Anzahl und den Tonnengehalt der Böte, sowie die Zahl der mit dem Schottischen, Irischen und Insel-Man-Fischfange beschäftigten Männer und Knaben an.

	Fischereien		
	Schottische	Insel Man	Irische
Anzahl der Schiffe.	12,703	628	9,300
Tonnengehalt der Schiffe	52,887	5,635	—
Anzahl der Männer und Knaben	40,934	2,550	40,946

Das Ergebniss dieser Fischereien in demselben Jahre war:—

	Schottland	Insel Man
Kabeljau und Langfisch:		
Gefangen oder gekauft	Centner 161,000	19,600
Fässer	7,900	—
Eingesalzen	Centner 107,600	138
Fässer	7,900	—
Häringe:		
Gefangen	691,000	44,000
Eingesalzen	609,000	34,000

Ueber den Irischen Fischfang, der in der letzten Zeit abgenommen hat, bestehen keine Berichte. Die Mehrzahl der kleinen Fischerböte in diesem Lande soll den an der Küste wohnenden Pächtern gehören und nur dann

und wann benutzt werden; die gefangenen Fische werden nicht zu Markt geschickt, sondern unmittelbar in der Nachbarschaft des Fangs verkauft und consumirt.

Ueber die Durchschnittspreise von Fleisch in den verschiedenen Theilen des Landes hat man keine Berichte. Auf dem Londoner Fleischmarkte waren sie während der drei Jahre von 1862–65 wie folgt.

Per Stein von 8 Pfund (den Abfall weggelassen).

	1863	1864	1865
Ochsenfleisch:	s. d.	s. d.	s. d.
Geringe Qualität	3 7 $\frac{3}{4}$	3 9	3 10
2. Klasse	4 2	4 4 $\frac{1}{2}$	4 4 $\frac{3}{4}$
3. Klasse (Hauptqualität)	4 8	4 9 $\frac{1}{2}$	4 9 $\frac{3}{4}$
4. Klasse (Schottisch)	4 11 $\frac{1}{2}$	5 1	5 2
Schafffleisch:			
Geringe Qualität	4 0	4 2 $\frac{1}{2}$	4 8
2. Klasse	4 7 $\frac{1}{2}$	4 9 $\frac{3}{4}$	5 4
3. Klasse (lang- und grobwollig)	5 1	5 3	5 11
4. Klasse (South-Downs)	5 5 $\frac{1}{2}$	5 8	6 4 $\frac{1}{2}$

Obleich die obige Tabelle nicht im Allgemeinen die von den Consumenten bezahlten Detail-Fleischpreise angiebt, so bietet sie doch eine Uebersicht von den En-gros-Preisen dieses wichtigen Nahrungsartikels. In Betreff der Fischpreise erhielten die Fischerei-Commissäre zwei Berichte, welche den in einer Seehafen- und Inlandstadt in den Jahren 1856 und 1865 bestehenden Fischpreis-Unterschied angeben.

Newcastle-on-Tyne	1856	1865
	s. d. s. d.	s. d. s. d.
Steinbutte . per Stein	2 0 bis 2 6	4 6 bis 6 6
Seezungen . das Paar	9 0 „ 1 3	1 9 „ 2 0
Kabeljau . per Stück	9 0 „ 1 3	2 6 „ 3 0
Coddinge . „ „	0 3 „ 0 9	0 6 „ 1 3
Schellfisch . „ „	0 3 „ 0 6	0 6 „ 0 9
Glattrochen . „ „	0 6 „ 0 9	0 6 „ 3 0
Weissfisch . „ „ Stein	0 9 „ 1 0	1 3 „ 1 6
Hummern . „ „ „	15 0 „ 20 0	18 0 „ 25 0
Manchester	1856	1865
	s. d. s. d.	s. d. s. d.
Steinbutte . per Pfund	1 0 bis 1 6	0 8 bis 1 0
Seezungen . „ „	0 3 „ 0 4	0 6 „ 0 8
Kabeljau . „ „	0 2 „ 0 4	0 3 „ 0 4
Stint . „ „	1 6 —	1 0 „ 1 6
Schellfisch . „ „	0 2 „ 0 4	0 3 „ 0 4
Plattfisch . „ „	0 2 —	0 1 $\frac{1}{2}$ „ 0 2
Kleine Meer-butte . „ „	0 4 „ 0 6	0 4 „ 0 5
Rochen . „ „	0 2 —	0 3 —
Heilbutte . „ „	0 4 „ 0 6	0 6 —

Der Preis von gesalznen Häringen im Jahre 1865 schwankte, in Leith, zwischen 28s. und 34s.; in Greenock, zwischen 26s. und 40s. per Fass.

Es giebt keine officiellen Berichte über die Preise der im Londoner Markt verkauften Fische.

Die Quantitäten und der Werth von importirten ausländischen Fischen waren im Jahr 1865:—

	Quantitäten	Werth
	Centner	£
Frische Fische	118,502	130,570
Eingepökelt oder eingesalzen	366,958	384,142
	485,460	514,712

Frische Fische werden hauptsächlich von Holland und Norwegen und gesalzene von British Nord-Amerika, Frankreich, Holland, Norwegen und Island importirt.

Die Exportationen von Britishen frischen Fischen waren im Jahre 1865:—

		Quantitäten	Werth
			£
Häringe	Fässer	352,250	500,233
Kabeljau und Lang- fisch	Centner	36,433	40,361
Salmen	"	4,311	23,388
Pilscher	Hundert	11,783	38,342
Austern	Buschel	97,030	63,130
Andere Arten	"	—	23,784
Summa	—	—	689,238

Häringe werden hauptsächlich nach Deutschland, Italien und Oestreich verschickt, Salmen und Austern nach Frankreich und Belgien und Pilscher nach Italien und Oestreich.

Klasse LXXI.

GEMÜSE UND OBST.

Die Cultur von Gemüse und Obst hat im Vereinigten Königreich einen hohen Grad der Vollkommenheit erreicht; auch werden beide in grossen Quantitäten von allen Klassen der Gesellschaft consumirt. Es bestehen keine Berichte über die jährliche Gartenproduction. Der mit Kartoffeln im Vereinigten Königreich angepflanzte Flächenraum, die Gärten ausgeschlossen, war im Jahr 1866 1,554,000 Acker.

Ausser dem einheimischen Erzeugnisse wrden jährlich bedeutende Quantitäten von Obst und Gemüse importirt. Im Jahr 1865 bestanden die hauptsächlichlichen Importationen in:—

Rohen Aepfeln	Buschel	516,000
Trauben	"	58,000
Orangen und Citronen	"	1,567,000
Rohen Birnen	"	41,000
Anderem rohen Obst	"	226,000
Zwiebeln	"	529,000
Kartoffeln	"	807,000

Klasse LXXII.

ZUTHATEN, SAUCEN, GEWÜRZE UND STIMULIRENDE GETRÄNKE; ZUCKER UND ZUCKERWERK.

Die in dieser Klasse eingeschlossenen im Vereinigten Königreich producirtten Hauptartikel sind: Tischsalz, Essig, Senf, Saucen, eingemachte Früchte und Marmeladen.

Die Fabrication von Tischsalz wird hauptsächlich in den Grafschaften Cheshire und

Worcester betrieben, wo man es in grossen Quantitäten zubereitet, obgleich einige der feinsten in London aus den roheren in den genannten Districten producirtten Sorten bereitet werden. Englischer Senf und Englische Saucen werden in hinreichender Quantität fabricirt, um den einheimischen Bedarf zu decken, und geniessen ausserdem in den meisten Continentalstädten und Colonien, wo grosse Mengen davon consumirt werden, eines hohen Rufes. Der Verbrauch einiger in dieser Klasse einbegriffenen Artikel, welche nicht im Lande erzeugt werden, ist sehr gross. Die folgende Tabelle giebt die Quantitäten der Hauptartikel fremder Production an, welche im Jahre 1865 zum Verbrauch eingeführt wurden:—

Pfeffer	Pfund	4,713,000
Cacao	"	3,826,000
Kaffee	"	30,511,000
Thee	"	97,834,000
Zucker, roh	Centner	9,876,000
" raffinirt	"	724,000

Pfeffer kommt hauptsächlich von Holländisch-Ostindien, viâ Singapore, Cacao von dem Britischen Westindien und Mittel-Amerika, Kaffee von Ceylon, Indien und Brasilien, Thee von China, roher Zucker von British-Westindien, Cuba und Brasilien, und raffinirter Zucker von Holland, Frankreich und Belgien. Zimmt, Gewürznelken, Piment etc. werden auch importirt, aber nicht in so grossen Quantitäten consumirt, wie die eben erwähnten Artikel.

Die Consumption von Thee und rohem Zucker hat während der letzten zehn Jahre bedeutend zugenommen. Im Jahre 1856 wurden nur 63,000,000 Pfund Thee und 6,813,000 Centner roher Zucker zur Consumption eingeführt. Beim Vergleichen der im Jahre 1865 in gleicher Weise importirten Quantitäten ergibt sich eine Zunahme von 55 Procent für Thee und von 44 Procent für rohen Zucker. Die vor Kurzem stattgefunden Herabsetzung des Theezolls auf 6d. per Pfund hat eine bedeutende Zunahme in der Thee-Consumption zur Folge gehabt und ist für die ärmeren Klassen der Gesellschaft ein wahrer Segen.

Die Durchschnitts-Consumption von Thee in Jahre 1865 war ungefähr $3\frac{1}{4}$ Pfund und von Zucker 39 Pfund per Kopf.

Die Cacao-Consumption bleibt beinahe unverändert, während die von Kaffee etwas abgenommen hat.

Der Werth der im Jahre 1865 aus dem Vereinigten Königreich exportirten Quantitäten von Salz, mit Essig eingemachten Sachen (Pickles,) Saucen, Essig und Zuckerwerk war:—

		Quantitäten	Werth
			£
Salz, Stein- und weisses	Tonnen	579,050	274,631
Pickles und Saucen	Werth	—	328,381
Essig	Gallonen	345,123	33,149
Zuckerwerk	Pfund	1,041,348	85,465

Klasse LXXIII.**GEISTIGE GETRÄNKE.**

Es giebt keine Berichte über die Production Britischer Weine, welche meistens aus fremden Früchten, wie Orangen, Rosinen, Ingwer etc. und einheimischen Johannisbeeren, Stachelbeeren und Himbeeren zubereitet werden. Apfelwein macht man in grossen Quantitäten in Devonshire, Herefordshire und anderen Grafschaften des Südwestens von England, wo derselbe, als Getränk der arbeitenden Klassen, beinahe die Stelle des Biers vertritt. Die besseren Sorten von Apfelwein und Birnwein werden gelegentlich auch von den höheren Klassen getrunken. Bier ist das gewöhnliche Getränk der Mehrheit der Bevölkerung und wird in grossen Quantitäten gebraut, nicht allein für die einheimische Consumption, sondern auch für den Export. Das Brennen von Branntweinen wird ebenfalls im Grossen betrieben. Schottischer und Irischer Whisky sind die berühmtesten Englischen Branntweine, obgleich vielleicht weniger getrunken als Gin, Cognac und Rum; Letzterer wird nicht im Lande fabricirt. Die Quantität von Malz, welche durch Branntweinbrenner im Vereinigten Königreich während der drei Jahre 1863–1865 verbraucht wurde, war:—

	Buschel
1862–3 . . .	4,133,000
1863–4 . . .	4,986,000
1864–5 . . .	4,408,000

Die Anzahl der Personen, berechtigt in jeder Provinz des Vereinigten Königreichs Bier zu brauen, war im Jahre 1865:—

In England und Wales . . .	34,218
Schottland . . .	220
Irland . . .	90
Summa . . .	34,528

Die Anzahl der Branntweinbrenner im selben Jahre war:—

In England und Wales . . .	8
Schottland . . .	116
Irland . . .	25
Summa . . .	149

Die Zahl der Destillateure nimmt mit jedem Jahre ab, weil das Geschäft grösseren Unternehmern in die Hände fällt, die durch Anwendung aller neuen Entfindungen im Stande sind, den kleineren Producenten die Wage zu halten.

Die folgende Tabelle zeigt die Quantitäten von Bier, Britischen Branntweinen, fremden Weinen und Branntweinen, welche im Jahre 1865 im Vereinigten Königreiche consumirt wurden:—

	Gallonen
Bier (geschätzt auf) . . .	684,000,000
Britische Branntweine . . .	21,005,000
Fremde Weine . . .	11,994,000
Fremde Branntweine . . .	6,732,000

Was die Consumption obiger Getränke während der letzten zehn Jahre betrifft, so hat im Bier eine Zunahme, in Britischen Branntweinen eine Abnahme, in fremden Branntweinen eine Zunahme und im Wein eine grosse Zunahme stattgefunden.

Die vermehrte Wein-Consumtion ist hauptsächlich der Zollherabsetzung auf diesen Artikel zuzuschreiben, welche in Folge des Handelsvertrags mit Frankreich im Jahre 1860 eintrat.

Die zur Consumption importirten Weine waren in den Jahren 1859 und 1865:—

Productionsländer	1859	1860
	Gallonen	Gallonen
Frankreich { Rother Wein . . .	423,000	182,000
{ Weisser „ . . .	272,000	329,000
Portugal { Rother „ . . .	1,971,000	2,851,000
{ Weisser „ . . .	49,000	38,000
Spanien { Rother „ . . .	47,000	506,000
{ Weisser „ . . .	2,829,000	4,685,000

Die Hauptsorten der importirten Branntweine sind Rum und Cognac. Die Hauptbezugsquellen zeigt die folgende Tabelle:—

Einfuhr für den Verbrauch, 1865.

	Gallonen
Rum { Von Britisch-Westindien . . .	1,499,000
{ „ „ Guiana . . .	1,870,000
Cognac { Von Frankreich . . .	2,581,000
{ „ andern Ländern . . .	85,000

Die exportirten Quantitäten von Britischem Bier, Ale und Branntweinen aus dem Vereinigten Königreich während der fünf Jahre von 1861 bis 1865 waren:—

	Bier und Ale	Branntweine
	Fässer	Gallonen
1861 . . .	378,000	4,085,000
1862 . . .	465,000	3,752,000
1863 . . .	491,000	4,076,000
1864 . . .	499,000	7,194,000
1865 . . .	562,000	1,987,000

Der Gesamtwert der obigen Exportationen im Jahre 1865 belief sich auf 2,305,000£.

GRUPPE VIII.

(KLASSEN LXXIV. bis LXXXII.)

Viehstand, Nebst Mustern von Landwirthschaftlichen Gebäuden.

Klasse LXXIV.

Landwirthschaftliche Gebäude und Arbeiten.

Der Stand des Ackerbaues in einem Lande von grosser Bevölkerung muss zu jeder Zeit tiefes Interesse erregen. In den letzten Jahren wurde der Cultur des Bodens viel mehr Aufmerksamkeit geschenkt, als dies früher der Fall war, und in Folge der Bemühungen vieler wissenschaftlichen Männer wird jetzt der Landbau im Vereinigten Königreich grossentheils nach wissenschaftlichen Grundsätzen betrieben. Auch hat die Einführung der Dampfkraft bei vielen landwirthschaftlichen Arbeiten, sowie die Anwendung besserer Geräthschaften und Maschinen, welche zu Ackerbauzwecken in England gemacht werden, viel zur Verbesserung in den Methoden der Landwirthschaft beigetragen. Ein grosser Fortschritt zeigt sich auch in den jetzt errichteten landwirthschaftlichen Gebäuden und in den dort angewandten Werkzeugen und Apparaten.

Die Fabrication landwirthschaftlicher Maschinen und Geräthschaften bildet einen sehr wichtigen Zweig der Landes-Industrie, wenn auch keine Berichte über die wirkliche Anzahl der darin beschäftigten Personen vorliegen. Die betreffenden Fabriken sind hauptsächlich in Lincoln, Bedford, in vielen Theilen von Suffolc, in Peterborough, Banbury und Manchester.

Die Englischen Fabricanten dieser Art von Maschinerie arbeiten nicht nur für den einheimischen Bedarf, sondern auch sehr viel für das Ausland; und es unterliegt keinem Zweifel, dass die Ausstellung ihrer Maschinen in den internationalen Ausstellungen ihnen grossen Nutzen gebracht hat.

Der Werth der aus dem Vereinigten Königreich im Jahre 1865 exportirten landwirthschaftlichen Maschinen und Geräthschaften war:—

	£
Landwirthschaftliche Geräthschaften, nicht genau angegeben	210,300
Landwirthschaftliche Geräthschaften, ganz von Eisen	13,177
Landwirthschaftliche Maschinerie (ausgenommen Dampfmaschinen)	282,019

Dampfmaschinen zu landwirthschaftlichen Zwecken sind in den Handelsberichten nicht besonders angeführt; dieser Handelszweig ist aber nichtsdestoweniger von grosser Wichtigkeit.

Ein Bericht über den mit den Hauptgetreidearten im Jahre 1866 angebauten Flächenraum im Vereinigten Königreich findet sich unter Klasse 67 und über den Viehstand unter den Klassen 75 bis 77.

Klasse LXXV.

Pferde, Esel und Mauthiere.

Ueber die Anzahl der Pferde in Grossbritannien giebt es, ausser der mit einer Taxe belegten und von derselben ausgenommenen Zahl, keine Berichte. Die Zahl der mit Taxe belegten und von derselben befreiten Pferde in jeder Provinz des Königreichs war im Jahre 1864:—

	Pferde und Mauthiere Anzahl
In England und Wales, steuerpflichtig	537,639
In England und Wales, steuerfrei	330,584
In Schottland, steuerpflichtig	55,428
„ „ steuerfrei	147,444
Summa für Grossbritannien	1,071,095
Nach den Berichten für Irland im Jahre 1866	535,000
Summa für das Vereinigte Königreich	1,606,095

Man hat keine Berichte über die Esel-Anzahl im Königreich.

Die folgende Tabelle giebt die Anzahl und den Werth der in das Vereinigte Königreich importirten und aus demselben exportirten Pferde während der fünf Jahre 1861–65 an:—

Jahre	Importirt		Exportirt (Britische)	
	Anzahl	Werth	Anzahl	Werth
		£		£
1861	1,595	37,693	2,954	237,813
1862	1,978	40,581	4,288	267,956
1863	1,441	39,264	5,204	269,825
1864	1,357	34,319	4,664	230,931
1865	1,332	39,658	4,400	185,367

Nur 4 Esel, auf 20 $\frac{1}{2}$ geschätzt, wurden im Jahre 1865 importirt, und 130 Esel und Maulthiere, auf 1,291 $\frac{1}{2}$ geschätzt, in demselben Jahre exportirt.

Klasse LXXVI.

STIERE, BÜFFEL ETC.

Ueber den Viehstand in jeder Provinz des Vereinigten Königreichs im Jahre 1866 giebt die folgende Zusammenstellung Auskunft:—

Provinzen	Kühe	Anderes Vieh	Summa
England . .	1,290,529	2,016,505	3,307,034
Wales . .	222,546	318,855	541,401
Schottland . .	370,447	566,954	937,401
Irland . .	1,481,446	2,261,486	3,742,932
Insel Man . .	7,755	10,932	18,687
Canal-Inseln:			
Jersey . .	5,815	6,222	12,037
Guernsey . .	3,030	3,946	6,976
Summa . .	3,381,568	5,184,900	8,566,468

Ausser dem im Lande zu Nahrungszwecken gezogenen Vieh wird jährlich eine grosse Anzahl, hauptsächlich von den Nordstaaten Europas, importirt. In den Jahren 1864 und 1865 fand eine bedeutende Zunahme in der Importation statt, was grossentheils der Rinderpest zuzuschreiben ist, welche unter dem einheimischen Vieh grassirte. Die Zahl und den Werth aller in den fünf Jahren 1861–65 in das Vereinigte Königreich eingeführten Viehgattungen zeigt folgende Tabelle:—

	Anzahl	Werth £
1861 . .	107,096	1,558,065
1862 . .	97,887	1,301,602
1863 . .	150,898	1,931,814
1864 . .	231,733	3,208,851
1865 . .	283,271	4,401,482

Die Viehausefuhr ist sehr gering.

Nach amtlichen Berichten beläuft sich die Gesamt-Anzahl des seit Beginn der Epidemie bis zum 10 November 1866 an der Rinderpest in Grossbritannien erkrankten Viehs auf 253,730. Von dieser Zahl wurden getödtet 85,018, starben 124,305, genasen 33,413, und über 10,994 wurde keine Rechenschaft gegeben. In derselben Periode wurden 52,415 gesunde Thiere geschlachtet, um die Ausbreitung der Seuche zu verhindern. Der bis zum 10. November 1866 geschätzte Procentsatz auf das von der Seuche befallene Vieh war 5,141.

Klasse LXXVII.

SCHAFE UND ZIEGEN.

Die Gesamtzahl der Schafe in jeder Provinz des Vereinigten Königreichs war im Jahre 1866:—

	Anzahl
In England . .	15,124,000
Wales . .	1,668,000
Schottland . .	5,255,000
Irland . .	4,270,000
Insel Man . .	55,954
Canal-Inseln:	
Jersey . .	517
Guernsey . .	1,214

Summa . 26,374,685

Die Zeit, jedoch, in welcher dieser Bericht gemacht wurde, lässt vermuthen, dass die Anzahl der Lämmer zu gering angegeben ist. Berichte über die Anzahl der Ziegen im Vereinigten Königreich, deren es nicht viele giebt, fehlen.

Es finden jährlich bedeutende Importationen von Schafen und Lämmern statt, beinahe ausschliesslich von Europa und hauptsächlich von Hamburg, Holland und Belgien. Die Importationen während der fünf Jahre 1861 bis 1865 waren:—

	Anzahl	Werth £
1861 . .	312,923	616,020
1862 . .	299,472	569,315
1863 . .	430,788	669,573
1864 . .	496,243	873,905
1865 . .	914,170	1,787,866

Die grosse Zunahme im Jahre 1865 ist dem durch die Rinderpest verursachten Mangel an Fleisch auf dem einheimischen Markte zuzuschreiben.

Die Zahl der exportirten Schafe ist sehr gering; im Jahre 1865 wurden nur 2,477, auf 22,134 $\frac{1}{2}$ geschätzt, fortgeschickt.

Klasse LXXVIII.

SCHWEINE UND KANINCHEN.

Der Bericht über die Anzahl von Schweinen im Vereinigten Königreich ist unvollständig, weil die von Ackerbauarbeitern und in Städten gehaltenen Schweine nicht darin aufgenommen sind. Ausschliesslich der so gehaltenen Schweine wurde übrigens die Gesamtzahl im Vereinigten Königreich im Jahre 1866 immer noch auf 3,800,000 geschätzt. An Kaninchen ist das Land reich genug; es giebt aber keine Berichte über die wahrscheinliche Anzahl derselben.

Die Importationen von Schweinen und Ebern während der fünf Jahre 1861–65 waren:—

	Anzahl	Werth £
1861 . .	30,308	37,884
1862 . .	18,162	17,319
1863 . .	27,137	53,685
1864 . .	85,362	192,566
1865 . .	132,943	359,065

Eine grosse Anzahl von Kaninchen wird vom Continente importirt, aber die officiellen Berichte geben sie nicht an. Sehr wenige

Schweine werden exportirt; im Jahre 1865 war die Anzahl 148, auf 559% geschätzt.

Klasse LXXIX.

GEFLÜGEL.

Statistiken über die Anzahl von Geflügel im Lande giebt es nicht, aber die Production muss den Bedarf der Bevölkerung decken, da die Importationen vergleichsweise von so geringem Werthe sind. Eier sind in dieser Klasse nicht einbegriffen und finden unter Klasse 69 Erwähnung.

Der Werth des während der fünf Jahre 1861–65 in das Vereinigte Königreich eingeführten Geflügels, Wildprets, mit Einschluss der Kaninchen, war:—

	£
1861	74,000
1862	86,000
1863	109,000
1864	131,000
1865	148,000

Klasse LXXX.

JAGD- UND WACHHUNDE.

Man hat keine Berichte über die Anzahl der Hunde im Vereinigten Königreich; denn obgleich sie einer Taxe unterliegen, so wird diese doch so allgemein umgangen, dass officiële Berichte über die Zahl der im Lande gehaltenen Hunde beinahe nutzlos geworden sind.

Klasse LXXXI.

NÜTZLICHE INSECTEN.

Die einzigen im Vereinigten Königreich gezogenen Insecten, dieser Klasse angehörend sind die in vielen Theilen des Landes gepflegten Bienen. Während der letzten zehn Jahre wurden verschiedene Verbesserungen in den Bienenstöcken eingeführt, aber in der Regel blieb der alte Stroh-Bienenkorb die gewöhnliche Form des Korbes, welcher zur Pflege der Bienen im Lande gebraucht wird. Die Quantitäten des im Jahre 1865 in's Vereinigte Königreich eingeführten Honigs und Bienenwachses waren:—

	Centner
Honig	4,519
Wachs	10,678

Angaben über den einheimischen Ertrag dieser Erzeugnisse fehlen.

Klasse LXXXII.

FISCHE, SCHALTHIERE UND MOLLUSKEN.

Der wichtigste Apparat in dieser Klasse ist der für künstliche Fischzucht in vielen Theilen des Landes mit Erfolg angewandte. Jedoch ist derselbe jetzt so allgemein bekannt, dass eine genauere Erwähnung hier überflüssig erscheint. Eine Notiz über den Ertrag der Britischen Fischereien findet sich unter Klasse 70.

GRUPPE IX.

(KLASSEN LXXXIII. bis LXXXVIII.)

ERZEUGNISSE DES BODENS UND DER GARTENCULTUR.

Klasse LXXXIII.

TREIBHAUS- UND GARTEN-GERÄTHSCHAFTEN.

WÄHREND der letzten Jahre sind verschiedene Neuerungen in der Construction von Treibhäusern und Conservatorien, besonders was den Bauplan der letztern anbetrifft, gemacht worden. In Geräthschaften ist die Erfindung und Einführung der Mähmaschine für Ziergrasplätze am wichtigsten; sie schneidet das Gras zu allen Zeiten des Tages und Jahres, während die Sichel nur, wenn Thau auf dem Grase liegt, benutzt werden kann. Viele andere Verbesserungen fanden auch zu gleicher Zeit in Gartengeräthschaften statt, in Folge der grösseren Aufmerksamkeit, die man, was Cultur und Zierde betrifft, heut zu Tage sowohl den Gärten wie auch den Conservatorien und andern zur Kunstcultur bestimmten Gebäuden jeder Grösse widmet.

Klasse LXXXIV.

BLUMEN UND ZIERPFLANZEN.

Ausser dem natürlichen Geschmack des Volkes für Blumen-Cultur, haben die verschiedenen Gartenbau- und botanischen Gesellschaften durch Anlage von Gärten und durch öffentliche Blumen- und Pflanzenausstellungen wesentlich dazu beigetragen, den Nationalgeschmack in dieser Hinsicht zu fördern. Die Blumengärten der oberen und Mittelklassen werden von allen Nationen als unübertroffen anerkannt, während Englands Verbindungen mit allen Theilen der Welt es den Blumenfreunden des Landes möglich machen, ihre Gärten mit den Gewächsen aller Climate zu bereichern. Unter den kürzlich eingeführten verdienen eine Anzahl schöner und bis jetzt seltener Japanischer Blumen und Pflanzen Erwähnung. Der erhöhte Wohlstand der Mittelklassen hat hauptsächlich mitgewirkt, die Gartenbaukunst in England bedeutend und allgemein zu entwickeln.

Klasse LXXXV.

GEMÜSE.

Man zieht sehr viel Gemüse aller Arten im Vereinigten Königreich, aber mit Ausnahme der Kartoffeln hat man keine Berichte über die Ausdehnung dieser Cultur.

Der mit Kartoffeln angepflanzte Flächenraum (mit Ausschluss der Gärten) war im Jahre 1866:—

	Acker
In England und Wales . . .	355,000
Schottland . . .	143,000
Irland . . .	1,050,000
Insel Man . . .	4,000
Canal-Inseln . . .	2,000
Summa . . .	1,554,000

Kartoffeln und Zwiebeln werden in grossen Quantitäten hauptsächlich von Frankreich, Holland, Belgien und Portugal eingeführt. Die Kartoffel-Einfuhr in das Vereinigte Königreich betrug im Jahre 1865 807,000 Centner, Werth 162,000*l.*, und die von Zwiebeln 529,000 Buschel, Werth 121,000*l.*

Klasse LXXXVI.

OBSTBÄUME.

Viele Obst-Gattungen, besonders Aepfel, Birnen und Kirschen, zieht man in verschiedenen Theilen des Königreichs. In Devonshire, Somerset und Herefordshire werden Aepfel zur Apfelwein-Fabrication in grossem Massstabe cultivirt. Kirschen aus Kent geniessen ihrer guten Qualität wegen eines grossen Rufes. Viele andere Obstsorten zieht man in Privat- und sogenannten Marktgärten; der jährliche Ertrag ist sehr bedeutend, aber lässt sich nicht leicht schätzen. Grosse Aufmerksamkeit widmete man der Obstbaum-Cultur, und jedes Jahr giebt neue Beweise von der Einführung verschiedener verbesserter Obstarten.

Ausser dem einheimischen Erzeugniss werden jährlich grosse Quantitäten gewöhnlicher Obstarten importirt, von welchen die hauptsächlichsten im Jahre 1865 aus folgenden bestanden:—

	Buschel
Aepfel, roh	516,000
Birnen	41,000
Nüsse	143,000
Haselnüsse	251,000
Kastanien	72,000
Trauben	58,000

Die Letzteren sind kein naturwüchsiges Product des Landes, werden aber sehr viel in Treibhäusern gezogen. Getrocknete Rosinen, Mandeln, Datteln und Feigen werden nicht im Lande producirt, sondern eingeführt.

Im Jahre 1865 betrugen die importirten Quantitäten:—

	Centner
Rosinen	368,000
Mandeln, süsse	32,000
Feigen, getrocknete	78,000
Datteln	16,000

Klasse LXXXVII.

SAMEN UND JUNGE WALDBÄUMCHEN.

Obgleich der Waldanbau im Vereinigten Königreich vergleichsweise von geringer Ausdehnung ist, indem sich derselbe nur auf die Kron- und einige grosse Gutsbesitzerwaldungen beschränkt, so widmet man doch der Baumzucht für Holzgewinnung und Pflanzungen grosse Aufmerksamkeit. Die die Landsitze

der Landeigenthümer umgebenden Parke sind voller Waldbäume jeder Art; diese werden aber nur der Zierde wegen cultivirt. Es giebt wahrscheinlich nur wenige Länder, worin man eine so grosse Mannigfaltigkeit von Laub-Gruppierung antrifft wie in den Wäldern und Pflanzungen vieler Grafschaften Englands.

Klasse LXXXVIII.

TREIBHAUSPFLANZEN.

Es ist unmöglich, innerhalb der Grenzen dieser Darstellung auf alle verschiedenen Methoden der Treibhauspflanzen-Cultur im Vereinigten Königreich aufmerksam zu machen; es ist aber anzunehmen, dass man die neueren Methoden in der Ausstellung antreffen werde. Für Heizungszwecke gebraucht man noch immer das Backstein-Kamin; aber Heiss-Wasser- und Gasapparate finden fast allgemeine Anwendung. In den letzten Jahren fanden in der Construction von Treibhäusern viele Verbesserungen statt, worunter die wichtigeren dem verstorbenen Sir J. Paxton zu verdanken sind; auch hat die Herabsetzung der Glaspreise den Zeichnern von Ziergebäuden bei Errichtung derselben grössern Spielraum gelassen. Die Cultur von Treibhauspflanzen, abgesehen von deren Pflege zu Vergnügungszwecken, ist durch die Ausstellungen, welche von Garten- und anderen Gesellschaften des Königreichs regelmässig abgehalten und in welchen Preise für die besten Exemplare von bekannten Blumen, sowie für erfolgreiche Neuerungen im Heizapparat ertheilt werden, sehr gefördert worden.

GRUPPE X.

(KLASSEN LXXXIX. bis XCIII.)

BESONDERE GEGENSTÄNDE, AUSGESTELLT IN DER ABSICHT, DEN
PHYSISCHEN UND MORALISCHEN ZUSTAND DES VOLKES ZU
VERBESSERN.

Klasse LXXXIX.

APPARATE UND METHODEN BEIM UNTER- RICHT DER KINDER.

OBGLEICH England in dieser Klasse nicht ausstellt, so muss doch erwähnt werden, dass in dem Vereinigten Königreich zahlreiche durch Privat-Subscription unterhaltene Gesellschaften bestehen, welche den Zweck haben, den Elementarschulen sowohl als dem Publicum im Allgemeinen bei der Anschaffung guter und billiger Erziehungsbücher behülflich zu sein. Mit Bezug auf Schulgebäude hält das Departement für Wissenschaft und Kunst eine permanente Ausstellung von anerkannt guten Modellen, Schulgeräthen und Apparaten für öffentliche Schulen. Grosse Aufmerksamkeit wird auch der Erziehung der Blinden in England gewidmet; in besonderen Schulen lehrt man sie nicht nur lesen, sondern sie werden auch in der Musik und den verschiedenen Handwerken unterrichtet. Es bestehen in London sowohl, als auch in andern grossen Städten, Institute zur Aufnahme dieser Klasse der Bevölkerung, worin mehrere Hundert Personen untergebracht und erhalten werden können. Es ist bekannt, dass aus dem wohlbekannten Institute für bedürftige Blinde in Southwark jährlich zwölf bis funfzehn junge in religiösen und weltlichen Kenntnissen gut unterrichtete Personen hervorgehen, so wie auch andere, die ein Handwerk verstehen, zum Beispiel, Schuhmacher, Mattenmacher, Weber, Bürstenbinder, Korbmacher, während andere die Orgel spielen können oder sonst musikalisch sind. Aehnliche Resultate hat man in den meisten andern Anstalten dieser Art erzielt.

Die Gesamtzahl der Blinden im Vereinigten Königreich im Jahre 1861 war:—

In England und Wales	19,352	{ oder 1 auf jede }	1,037 Personen
Schottland	2,320	„	1,086 „
Irland	6,879	„	843 „
Inseln der Britischen Meere	197	„	728 „
	29,248	„	944 „

Die Ausstellung von Erziehungsbüchern und Karten etc. wird genügen, um das grosse Interesse zu zeigen, welches man an der Verbesserung des moralischen und socialen Zustandes der Bevölkerung nimmt.

Klasse XC.

BIBLIOTHEKEN UND APPARATE ZUM GEBRAUCH BEIM UNTERRICHT ERWACHSENER PERSONEN, ZU HAUSE, IN DER WERKSTATT ODER IN SCHULEN UND COLLEGIEN.

Bibliotheken und Lesezimmer zur Benutzung der Arbeiterklassen bestehen schon seit vielen Jahren in Verbindung mit Arbeitervereinen und litterarischen Instituten und werden nun in beinahe jeder Stadt und in jedem Marktflecken des Landes angetroffen. Die Errichtung von Frei-Bibliotheken in grossen Städten zur Benutzung für alle Klassen stammt aus der letzten Zeit.

Arbeitervereine und andere Institute sorgen durch Abendunterricht für die Ausbildung erwachsener Personen der niedern Klassen; auch werden die Bemühungen derer, welche sich für die Fortdauer dieser Anstalten interessieren, in verschiedenen Theilen des Landes, von vielen Verlegern, denen das Wohl der arbeitenden Klassen am Herzen liegt, freigebig unterstützt. Das Veröffentlichen von billigen Erziehungsbüchern und besonders solchen, welche sich zum Selbstunterricht eignen, ist jetzt so ausgedehnt, dass die Schwierigkeit nicht mehr im Anschaffen der Bücher, sondern in der Auswahl der wirklich guten besteht. Die ungeheure Circulation billiger Zeitschriften, neuer Ausgaben classischer Werke und besonders wohlfeiler Zeitungen muss jedenfalls als Beleg für die erhöhte Bildungsstufe eines grossen Theils der Gesellschaft angesehen werden.

Klasse XCI.

MÖBEL, KLEIDUNG UND NÄHRUNG AUS ALLEN QUELLEN, IHRER NÜTZLICHEN EIGENSCHAFTEN, UND WOHLFELIHEIT, WEGEN BEMERKENSWERTH.

In einem Lande wie das Vereinigte Königreich, wo ein so grosser Theil der Manufacte für die Volksmassen geschaffen wird, ist es nicht leicht, die speciellen Artikel zu bezeichnen, welche dieser Klasse angehören. Der grosse Verbrauch und die Anwendung von Maschinerie in der Fabrication derselben machen es möglich, dass die gewöhnlichen Möbel, Kleidungs- und Nahrungs-Artikel zu Preisen verkauft werden können, welche jedes gesunde und arbeitsame Mitglied der Gesellschaft zu erschwingen im Stande ist. Die Preise der meisten von den ärmern Volksklassen gebrauchten Artikel werden auch niedrig gehalten durch die grosse Concurrenz, indem dieser Handelszweig (meistens Baargeschäft) ein sehr einträglicher, wenn auch der Profit auf die einzelnen Artikel nur gering ist.

Die Bildung und rasche Zunahme von co-operativen und Versorgungs-Gesellschaften, welche ihre Mitglieder (hauptsächlich Arbeiter) mit Nahrungsmitteln und Kleidungsstücken zum Kostpreise versorgen und ausserdem noch einen Gewinn auf die Lagereinkäufe haben, dürfen hier nicht unerwähnt bleiben.

Klasse XCII.

MUSTER VON KLEIDUNGSSTÜCKEN, WELCHE VON DEN BEVÖLKERUNGEN VERSCHIEDENER LÄNDER GETRAGEN WERDEN.

Unter Klasse 35 finden sich einige Notizen über die verschiedenen Kleidungen, welche in dem Vereinigten Königreich getragen werden.

Klasse XCIII.

MODELLE VON WOHNHÄUSERN, BEMERKENSWERTH WEGEN IHRER WOHLFELIHEIT, NEBST DEN ZUR GESUNDHEIT UND BEQUEMLICHKEIT NOTHWENDIGEN BEDINGUNGEN.

Die Verbesserung der Arbeiterwohnungen hat seit langer Zeit die Aufmerksamkeit der Menschenfreunde in England beansprucht. Die welche die Londoner Ausstellung im Jahre 1851 besuchten, werden sich ohne Zweifel noch der Modell-Wohnhäuser erinnern, welche man unter der Leitung des Prinzgemahls für die Ausstellung errichtet hatte und, die damals so allgemeine Aufmerksamkeit auf sich zogen. Seit jener Zeit haben die 'Society of Arts,' sowie andere Gesellschaften und Privatpersonen diesen Gegenstand lebhaft aufgegriffen, und man hat eine grosse Anzahl von Häusern zu Arbeiterwohnungen in den verschiedenen Theilen der Stadt errichten lassen; jedoch, obgleich Manches in dieser Richtung geschehen, muss die Mehrzahl der ärmeren Klassen immer noch in den elendesten Baracken wohnen. Die Ausdehnung der Eisenbahnen und die öffentlichen Verbesserungen steigern den Werth der Häuser in London von Jahr zu Jahr. Einige Erleichterung gewähren die Concessionen seitens mehrerer Eisenbahn-Gesellschaften, die Arbeiter zu ermässigten Preisen von und nach den Vorstädten zu führen, und, sollten alle Eisenbahn-Companien diesem Beispiele folgen, so möchte allerdings manchem Uebelstand in dieser Beziehung abzuhelpen sein. Es darf aber nicht übersehen werden, dass die Arbeiter sehr früh Morgens an die Arbeit gehen müssen und deshalb unmöglich entfernt von ihrem Arbeitslocale wohnen können. Der Mangel an Arbeiterwohnungen beschränkt sich aber leider nicht nur auf London, er macht sich jetzt in beinahe allen grossen Städten, auch in den Ackerbaudistricten, fühlbar und hat in letzter Zeit so zugenommen, dass nur Unternehmungen von grossartigem Umfang einiger-massen werden dem Uebel steuern können.

STATISTICHE DELLA GRANDE ESPOSIZIONE DI TUTTE LE NAZIONI NEL 1851, DELL' ESPOSIZIONE UNIVERSALE DI PARIGI NEL 1855, E DELL' ESPOSIZIONE INTERNAZIONALE DEL 1862.

PER WILLIAM MATCHWICK, F.L.S.

GRANDE ESPOSIZIONE DI TUTTE LE NAZIONI NEL 1851.

L' EDIFICIO dell' Esposizione, costruito principalmente di ferro e cristallo, fu eretto nell' Hyde Park, Londra, in una località ordinariamente non molto frequentata ma specialissimamente adattata pel fine desiderato. Vi è al lato meridionale del parco uno spazio aprico di considerevole estensione, parallelo e contiguo alla strada maestra che mena a Kensington e Hammersmith, ed è il gran cammino occidentale verso la metropoli. Esisteva a mezzavia circa fra la caserna della cavalleria a Knightsbridge e il nuovo ingresso al parco, detto Queen's Gate, che è da due a trecento yarde a levante dell' antica barriera di Kensington. Venti jugeri circa di questa località, originalmente suggerita dal fu Principe Consorte per tale oggetto, furono scelti pel proposto edificio dai Reali Commissari dell' Esposizione.

Ma era necessario prima di tutto ottenere il consenso della Corona a tale appropriazione di una parte del più importante dei parchi di Londra. Il consenso fu graziosamente concesso; ma accompagnato dalla condizione che, finita l' Esposizione, il terreno fosse restituito allo stato primitivo e reso in condizione da servire alla ricreazione e godimento del pubblico. E sebbene i più grandi sforzi fossero fatti per conservar l' edificio, questa condizione fu fedelmente osservata ed ogni traccia dell' Esposizione completamente cancellata pel 1° giugno 1852 o poco più che venti mesi dopo l' erezione della prima colonna il 25 settembre 1850. Sul sito stesso non rimane nulla che ne indichi l' ubicazione se non due olmi diligentemente difesi dai guasti con ringhiere di ferro. Ambedue questi alberi stettero (con alcuni altri) inchiusi nella navata trasversale, l' uno all' estremo meridionale l' altro al settentrionale. Stanno a indicare il centro dell' edificio, e benché molto danneggiati nello sviluppo dalla lunga non naturale reclusione, essi danno idea presso a poco dell' altezza e lunghezza della navata trasversale centrale, essendo alberi d' età matura e belli esemplari forestali della loro specie.

All' occidente del sito, però, e sulla stessa linea, è adesso in costruzione il monumento nazionale commemorativo eretto in onore del fu Principe Consorte che tanto completamente si identificò colla Grand' Esposizione del 1851. Questo monumento quando sarà compito marcherà certamente il sito della Grand' Esposizione del 1851, benché situato a circa 500 yarde dall' estremità orientale dello spazio occupato già dall' edificio. Il Palazzo di Cristallo a Sydenham è principalmente costruito coi materiali stessi che costituivano la Grand' Esposizione del 1851.

L' architetto dell' edificio fu l' ora defunto Sir Joseph Paxton, e gli accollatori della costruzione i Signori Fox (ora Sir Charles) e Henderson.

Cambiamenti molto considerabili furono però fatti al progetto originale di Sir J. Paxton (che era in principio quello da lui adottato nell' erezione della gran serra a Chatsworth, residenza del Duca di Devonshire), e gran parte del merito dell' edificio si deve attribuire a Sir Charles Barry, Sir William Cubitt, Signor Robert Stephenson e Signor Brunel.

DIMENSIONI DELLO SPAZIO.

L' intero spazio coperto o totale area superficiale dell' edificio fu fissata originalmente a 800,000 piedi quadrati, ma fu poi accresciuta fino a circa un milione di piedi quadrati, o più che venti jugeri. Di questo spazio fu giudicato che una metà (500,000 piedi quadrati) si richiedeva per la mostra degli oggetti, l'altra metà per la circolazione, ecc. Nell' aggiudicare questo spazio, i Reali Commissari stabilirono come principio, che metà sarebbe dato alla Gran Bretagna e sue colonie, e metà a paesi esteri. (*Vedasi la tavola nel testo inglese.*)

Alle estremità orientale ed occidentale dell' edificio, uno spazio di 30,712 piedi quadrati fu

inchiuso per usi attenenti all' Esposizione, che non è incluso di sopra.

NUMERO DEGLI ESPOSITORI.

Il numero totale degli espositori fu 13,937, dei quali 7,381 appartenevano alla Gran Bretagna e le sue colonie e 6,556 ai paesi esteri. Alcuni paesi, però, come l' India, la Turchia, l' Egitto e Tunis e gl' individui che si unirono insieme nel mandare le loro contribuzioni sono annoverati come un espositore; cosicchè includendo quelli, il numero totale degli espositori si può calcolare fra i 15 e i 14,000.

Il rendiconto seguente dà il numero degli espositori di ciascun paese e lo spazio che occupano:—

	Numero di Espositori	Spazio occupato
Gran Bretagna	6,861	Piedi quadrati 503,424
Colonie Britanniche	520	40,896
Totale	7,381	544,320
America, Stati Uniti	499	44,352
Austria	731	43,384
Belgio	506	37,440
China	30	5,184
Danimarca	39	1,152
Egitto	„	2,304
Francia	1,710	119,808
Prussia e Stati della Lega Dogana (Zollverein)	1,402	77,184
Grecia	36	576
Germania (Nord)	134	2,880
Paesi Bassi	113	4,608
Persia	12	576
Portogallo	157	3,456
Roma	52	3,456
Russia	263	13,824
Sardegna (Regno di)	95	4,032
Spagna	286	4,032
Svezia e Norvegia	117	1,728
Svizzera	263	12,096
Tunis	„	4,608
Turchia	„	6,912
Toscana	99	4,608
Sud America (Stati del)	12	576
Totale stati esteri	6,556	403,776
Totale	13,937	4,033,344

SPESE DELL' ESPOSIZIONE.

Dall' analisi delle spese pubblicata dai Reali Commissari risulta che i pagamenti per conto di costruzione e addobbiamenti furono 170,000£. Prendendo l' area superficiale netta dello spazio coperto a un milione di piedi quadrati, ciò darebbe una spesa di circa 3 scellini e 5 pence per piede quadrato.

I capi principali di spesa furono i seguenti:—

Servizi personali, incluso il personale della Reale Commissione, comitato esecutivo, assistenza tecnica e giurati, amministrazione, ecc. . .	£71,975
Polizia	19,648
Spese generali di ufficio come affitto, mobilia, cartoleria, stampati, francature, annunzi, ecc.	8,869
Mantenimento generale dell' Esposizione incluso carbon fossile pelle caldaie, illuminazione, acqua, annaffiamento delle strade, attrazzi e arnesi, risarcimenti, danni imprevisi, ecc.	4,878
Dipartimento dei giurati—costo delle medaglie, buste, certificati, fotografie, rapporti di presentazione, esperimenti di meccanismi agrari e d' altro	6,917
Spese legali, interesse sulle anticipazioni e contingenze	10,508

Totale £122,795

Che, inclusa la costruzione, fa ammontare il costo totale dell' Esposizione a circa 292,795£.

E pur necessario rammentare che il contratto coi Signori Fox e Henderson non includeva la vendita assoluta dell' edificio alla Real Commissione, essendo *pell' uso e consumo soltanto*, rimanendo l' edificio stesso proprietà degli accolatari. Se ciò fosse stato altrimenti, la spesa effettiva dell' Esposizione avrebbe dovuto accrescersi di almeno 100,000£.

L' Esposizione fu aperta al pubblico il giovedì 1° maggio e chiusa finalmente il sabato 11 ottobre, essendo rimasta aperta giusto 141 giorni. Tuttavia il lunedì e martedì seguenti furono ammessi gratis gli espositori e i loro amici, e il mercoledì 16 ottobre ebbe luogo la cerimonia finale della chiusura, in presenza degli espositori, dei giurati, dei commissari esteri e locali, rappresentanti dei comitati ed altri.

L' ammissione del pubblico all' Esposizione si faceva per abbonamento, o per pagamento di denaro alla porta. L' abbonamento era per gli uomini tre ghinee, per le donne due, a testa. Dopo il 31 luglio queste tasse furono ridotte a 1£. 10s. e 1£. rispettivamente. Il giorno dell' apertura non fu ricevuto pagamento alla porta, non essendo ammessi che gli abbonati. Pei due primi giorni dopo l' apertura il prezzo di ammissione fu 1£. Dal 5 al 24 maggio (inclusive) l' ammissione fu 5 scellini. Dal 26 maggio al 2 agosto (inclusive) l' ammissione fu come appresso: —I lunedì, martedì, mercoledì, e giovedì 1 scellino, i venerdì 2½ scellini, i sabati 5 scellini; e dalla data ultimo menzionata fino alla chiusura dell' Esposizione niun' altra mutazione fu fatta salvo la riduzione della tassa del sabato a 2½ scellini.

Dapprimo le porte d' ammissione si aprivano alle 10 a.m. e si chiudevano alle 6 p.m. eccetto

i sabati, in cui non si aprivano fino alle dodici. Dal lunedì 18 agosto le porte furono aperte alle 9 invece delle 10, e ciò continuò fino al termine dell'Esposizione.

Alcune modificazioni furono fatte sussaguientemente nell'ora della chiusura secondo la stagione. Nel cuor dell'estate l'Esposizione rimase aperta fino alle 7, e secondo che la stagione avanzava le campane furono poi suonate alle 6, e più tardi 10 minuti innanzi il tramonto.

INCASSI.

Gli incassi lordi e netti da qualsiasi sorgente furono come appresso:—

Soscrizioni	£67,897
Catalogo (appalto)	3,200
Rinfreschi (appalto)	5,500
Abbonamenti	67,504
Alle porte	356,278
Camerini, ombrelli, medaglie battute nell'edifizio e carte del buono o cattivo tempo	4,580
Interesse e premio su buoni del tesoro	898
Miscellanee	233

Totale £506,100

Il numero degli abbonamenti fu 25,605, dei quali 13,454 furono per uomini, e 12,111 per donne. Di questo numero 135 per uomo e 184 per donna furono presi dopo il 31 luglio al prezzo ridotto di 30 e 20 scellini rispettivamente.

La media degli incassi quotidiani alle porte (escluso il giorno dell'apertura in cui non si ricevè denaro) ammontò a 2,548 $\frac{1}{2}$ per tutto il tempo della durata dell'Esposizione. Durante le prime tre settimane, mentre il prezzo d'ammissione fu 5 scellini la media quotidiana fu 2,546 $\frac{1}{2}$, cioè molto prossima all'altra testè accennata. Il massimo incasso fatto in un giorno fu il mercoledì 8 ottobre, in cui (giorno d'ammissione a 1 scellino) furono pagate alle porte 5,283 $\frac{1}{2}$; ed il minimo il lunedì 26 maggio, che ammontò a 920 $\frac{1}{2}$. Quello fu il primo giorno in cui l'ammissione fu ridotta ad 1 scellino; e la somma comparativamente piccola che si ebbe è da attribuirsi all'apprensione per parte del pubblico che un'ammissione così modica attrarrebbe una folla così enorme da rendere una visita all'Esposizione non solo incomodissima, ma soggetta a possibile pericolo.

La tavola seguente mostra gli incassi totali alle porte ai diversi prezzi di ammissione:—

Numero di Giorni	Prezzo di Ammissione	Incasso	Media quotidiana
	£ s. d.	£ s. d.	£ s. d.
2	1 0 0	1,042 0 0	521 0 0
28	0 5 0	61,347 7 0	2,191 0 0
30	0 2 6	72,447 11 0	2,414 17 0
80	0 1 0	221,971 3 0	2,774 12 0
140		356,808 1 0	

La perdita sull'oro calante, svisato, spurio, ed estero fu considerabile e ascese a più che 530 $\frac{1}{2}$ %, che dedotte dal totale che sopra spiega la differenza apparente fra l'ammontare dato anteriormente e quello nella tavola qui sopra.

NUMERO DI PERSONE AMMESSE.

Il numero totale delle ammissioni in tutto il tempo dell'Esposizione fu di 6,039,196. Durante i 141 giorni 773,776 entrarono come abbonati. Nei due giorni quando l'ammissione era 1 $\frac{1}{2}$ %, 1,042 persone pagarono. Nei 28 giorni quando l'ammissione era 5 scellini 245,389 pagarono. Nei 30 giorni quando l'ammissione era 2 $\frac{1}{2}$ scellini 579,579 pagarono; e negli 80 giorni quando l'ammissione era 1 scellino 4,439,419 pagarono. Prendendo una media quotidiana, i risultati sono come appresso:—

Abbonati	5,473	quotidiana-mente
Paganti ammissione 1 0 0	521	„
„ „ 0 5 0	8,763	„
„ „ 0 2 6	19,319	„
„ „ 0 1 0	55,493	„

Ogni facilità fu offerta dalla Real Commissione e dal Comitato Esecutivo per la libera ammissione di tutti coloro la cui ammissione nell'edifizio era assolutamente necessaria, ma non vi fu mai in attività alcuna lista di libere ammissioni. Tutti gli impiegati della Real Commissione, polizia, militari, commissari esteri, espositori, certi agenti e attenenti agli espositori, membri della stampa provinciale e metropolitana, i giurati e molti altri non specificati, erano ammessi gratis durante tutto il periodo dell'Esposizione; aggiunta considerevole al numero sempre presente nell'edifizio. La maggior parte di questi entrava avanti l'apertura delle porte, e non era contata dalla polizia, e per regola generale, se conosciuti per avere occupazione nell'edifizio non erano mai contati a qualunque ora venissero.

Il maggior numero di persone che mai di fatto fossero ad uno stesso tempo nell'edifizio, fu il 7 ottobre, martedì (quattro giorni avanti la chiusura. Il numero totale degli ammessi fu in quel giorno 109,915 (numero maggiore che in qualunque altro giorno di tutta l'Esposizione), ed alle 2 p.m. quel giorno fu computato che circa 100,000 persone si trovavano nell'edifizio. Il lunedì 6 ottobre il numero totale fu 107,815, il mercoledì 8 ottobre fu 109,760, e il giovedì 9 ottobre 90,813. I quattro giorni notati furono gli ultimi giorni da uno scellino dell'Esposizione, di cui il totale ammessi fu 418,303, o una media di 104,576 per ciascuno di quei giorni.

GIURATI.

Il numero effettivo dei giurati nominati per l'Esposizione fu 318 — 161 britannici e 157

esteri, e il numero nominato per ciascun paese fu come appresso:—

Austria	17
Belgio	14
Danimarca	1
Egitto	2
Francia	38
Gran Bretagna	161
Grecia	1
Germania (Nord)	2
Olanda	2
Italia	6
Portogallo	2
Russia	7
Sicilia	1
Spagna	4
Svizzera	7
Stati Uniti	24
Svezia	1
Turchia	5
Zollferein	23

Totale . 318

Addetti ai giurati vi erano degli associati giurati in numero di 100, nominati specialmente dai giurati per assisterli nelle loro decisioni, ma senza potere di votare. Settanta dei giurati e giurati associati erano anche espositori. La tavola che segue mostra il numero dei giurati e giurati associati in ciascuna classe:—

Classe		Giurati	Giurati associati
18	Tessitura, filatura, infeltritura e preparazione dei tessuti per saggi di stampatura o tintura	10	2
19	Tappezzeria, tappeti, trine, ricami e lavori di lusso	10	0
20	Panni per uso personale e domestico	8	8
21	Coltellineria e arnesi taglienti	6	4
22	Ferro e chincaglieria in generale	12	7
23	Lavori in metalli preziosi, gioie, ecc.	10	5
24	Cristallami	8	12
25	Ceramica, porcellane, terraglie, ecc.	8	2
26	Mobili, tappezzeria, carte da parati, cartapesta e cose verniciate	12	4
27	Oggetti in sostanze minerali usati nelle costruzioni e decoramenti	8	8
28	Manifatture di sostanze animali e vegetabili non tessute nè infeltrite nè incluse nelle altre classi	8	1
29	Miscellanee e mercerie	8	8
BELLE ARTI			
30	Scultura, modelli e plastica	15	0
Totale		318	100

Le 30 classi sopra enumerate furono poi praticamente accresciute fino a 34 per l'aggiunta di una sotto-classe alla 5ª, e tre sotto-classi alla 10ª, così facendo il numero dei giurati in attività anche 34.

AGGIUDICAZIONI.

Due specie di medaglie in bronzo furono aggiudicate dai giurati, cioè, la medaglia del consiglio, e la medaglia premio. Certificati anche d'onorevole menzione furono dati come una terza aggiudicazione. La medaglia del consiglio fu quasi esclusivamente riservata come una ricompensa per invenzioni rimarcabili, e non fu considerata applicabile ai casi in cui eccellenza di esecuzione era il solo merito da ricompensarsi.

In pochi casi doni pecuniari furono aggiunti alla distinzione onorevole della medaglia o dell'onorevole menzione, cioè quando artigiani avevano incorsa una spesa considerabile nel produrre un oggetto interessante, senza possibilità di esser remunerati per la spesa.

Il numero totale delle aggiudicazioni fatte dai giurati fu:—

Medaglie del consiglio . . .	171
Medaglie premio . . .	2,954
Menzioni onorevoli . . .	2,123

Totale . 5,248

Classe		No. di Giurati	Giurati associati
SOSTANZI NATURALI			
1	Miniere, cave, opere metallurgiche, e prodotti minerali	8	1
2	Processi chimici e farmaceutici e prodotti in generale	8	8
3	Sostanze alimentari	6	0
4	Sostanze animali e vegetabili usate principalmente nelle industrie	8	1
MECCANISMI			
5	Macchine per uso diretto, carrozze e meccanismi ferroviari e navali inclusi	18	2
6	Macchine fabbricatrici, e arnesi	12	6
7	Cose attenenti al genio civile, architettura e costruzioni	8	0
8	Architettura navale, genio militare, artiglieria, armature e buffetterie	8	7
9	Macchine ed attrazzi agrari ed orticoli	15	1
10	Strumenti e processi fisici; strumenti musicali d'orologeria e chirurgici	32	7
MANIFATTURE			
11	Cotone	10	8
12	Tessuti di lane e stami	12	9
13	Sete e velluti	10	0
14	Manifatture di lino e di canapa	10	0
15	Tessuti misti	12	2
16	Cuoio, pelli, pellicce, penne e pelo	10	1
17	Carta, cartoleria, stampa, e rilegatura	8	1

RIASSUNTO DELLE AGGIUDICAZIONI.

Gran Bretagna e Colonie :

Medaglie del consiglio . . .	79
Medaglie premio . . .	1,432
Menzioni onorevoli . . .	930
	— 2,441

Paesi esteri :

Medaglie del consiglio . . .	92
Medaglie premio . . .	1,522
Menzioni onorevoli . . .	1,193
	— 2,807
Totale . . .	5,248

ESPOSIZIONE UNIVERSALE A PARIGI NEL 1855.

È ALQUANTO difficile determinare esattamente le località e posizioni relative dei diversi edifici che furono eretti per l'Esposizione Universale a Parigi del 1855. L'edificio principale era un fabbricato rettangolare quasi di forma quadrata situato nel gran viale dei Campi Elisi e ben conosciuto come il 'Palazzo dell' Industria.' Questo edificio fu costruito solidamente e destinato ad esser permanente. In quello furono esposti i prodotti delle 27 classi industriali principalmente. Al sud di questo principal edificio, e connesso per mezzo di gallerie coperte e passaggi stava un lungo e stretto edificio chiamato l' annesso o la Galleria du Quai, che era in prossimità e si estendeva lungo la sponda nord della Senna. Questo annesso lungo 4,000 piedi era principalmente dedicato alla esposizione di meccanismi. Il terzo edificio destinato alle tre classi formanti la divisione delle Belle Arti (Palazzo delle Belle Arti) era situato a qualche distanza considerevole dagli altri due, essendo all' estremo sud-ovest, presso il fiume, del viale Montaigne. Era affatto separato dai due menzionati edifici; essendo impraticabile qualunque passaggio di congiunzione a causa della distanza e località.

Fra il Palazzo dell' Industria e l' annesso stava un edificio circolare conosciuto come il Panorama o la Rotonda del Panorama in cui erano in mostra legioie della corona di Francia e una gran varietà di tappeti, tappezzerie, ecc. Esternamente e intorno a questa Rotonda, era uno spazio considerevole in parte coperto e in parte aperto in cui erano esposte carrozze di ogni genere e meccanismi e attrazzi agrari. Ivi era provvisto anche ampio spazio pei rinfreschi. La sola struttura che ora rimane ad indicare è l' Esposizione cinese unita al Palazzo delle Belle Arti ma non connessa con quello in alcun altro modo. Difatto l' Esposizione cinese non fu mai considerata parte della mostra internazionale, e qui se ne fa solo menzione per complemento, e perchè lo spazio che occupava era realmente parte (benchè separata) dell' edificio delle Belle Arti.

Vi erano dunque tre edifici separati e distinti indipendentemente dalla Rotonda del Panorama, che servivano all' Esposizione Internazionale Francese del 1855 — il Palazzo dell' Industria ossia l' edificio principale centrale, l' annesso pei Meccanismi, e il Palazzo delle Belle Arti. Per ciò che riguarda l' edi-

zio ultimo menzionato il governo francese aveva studiata la possibilità di dedicare una porzione del nuovo palazzo del Louvre all'esposizione delle opere artistiche contribuite all' Esposizione, e senza dubbio tale intenzione avrebbe avuto effetto se ciò fosse stato possibile senza impedire gli urgenti ed importanti lavori interni ed esterni ivi in corso.

Sebbene la preparazione e l' erezione di questi edifici per l'Esposizione Universale di Parigi del 1855 fosse iniziata e generalmente eseguita coi capitali di una società commerciale organizzata in Parigi, pure era il governo francese che aveva la totale e sola direzione dell' Esposizione, addossandosi ogni rischio della impresa, e garantendo alla società un certo per cento di profitto sulle anticipazioni. Conseguentemente l' Imperatore nominò Commissari Imperiali col Principe Napoleone alla testa per la direzione dell' Esposizione, e sebbene la società avesse certi privilegi e diritti di stabilire alcuni regolamenti, fu difatto surrogata ed il governo ne prese l'intero controllo.

I Signori Viel e Desjardins furono gli autori architetti dell' edificio principale, e i Sig. York e Co. furono gli accollatori per l'esecuzione dei lavori.

Tutti gli edifici erano di carattere provvisorio eccetto il principale centrale; e tutti con quella eccezione furono rimossi in breve tempo dopo la chiusura dell' Esposizione. La struttura principale (il Palazzo dell' Industria) nei Campi Elisi fu conservato ed esiste tuttora. Appartiene al governo, e serve per l' esposizione di opere artistiche ed altri oggetti affini.

DIMENSIONI DI SPAZIO.

Lo spazio totale orizzontale occupato da tutti i paesi che esposero nelle divisioni industriali, circolazione e tutti gl' ingressi inclusi, non meno che gli uffici e stanze di ricevimento, era 152,052 metri quadri o 1,770,000 piedi di superficie inglesi. Nell' edificio delle Belle Arti lo spazio totale occupato dai lavori artistici nelle classi di pittura, incisione, litografia, scultura, o architettura erano 17,639 metri quadri, ossia 15,603 metri quadri spazio superficiale verticale per quadri, incisioni, ecc., e 2,036 metri quadri orizzontali per lavori di scultura, facendo insieme

un totale di 169,691 metri quadri (circa 1,866,000 piedi quadrati) spazio occupato di fatto dagli espositori nelle varie classi nella Esposizione tutt'alta quanta e dalla circolazione, uffici e quanto altro fu provveduto pel servizio generale del pubblico. In questo estimo, gl'ingressi, gli uffici, e spazio nel piano non occupato da lavori artistici nell'edifizio delle Belle Arti non sono inclusi nè lo sono le dimensioni di tale spazio date nel rapporto della Commissione Imperiale.

Le divisioni dello spazio per esposizione nell'edifizio principale, o Palazzo dell'Industria, Rotonda del Panorama, e annesso dei meccanismi, era come segue:—

	Metri quadri
Francia	55,669
Paesi esteri	46,097
Circolazione, ecc.	17,021
Totale	118,786

Nella divisione delle Belle Arti, si computa che la Francia occupasse 2,400 metri quadri di spazio murale per quadri, ecc.; la Gran Bretagna 938 metri quadri; il resto dello spazio era diviso fra dieci altri paesi. Realmente lo spazio occupato dal Regno Unito con lavori artistici era circa 14,184 piedi.

Per quanto fu possibile accertarlo lo spazio totale orizzontale occupato dalla Gran Bretagna e dalle sue Colonie nell'Esposizione Universale di Parigi del 1855 nell'interno dei vari edifizii fu 183.000 piedi quadrati, dei quali 14,148 piedi quadrati furono dedicati ad opere nelle tre classi delle Belle Arti.

Sebbene lo spazio occupato di fatto da ciascun paese nella divisione delle Belle Arti non era dato nel rapporto della Commissione Imperiale, tuttavia vi è notato il numero degli Espositori in ciascuna delle tre classi.

Nel rapporto presentato al Parlamento sulla divisione Britannica dell'Esposizione, il numero di artisti inglesi che esposero nella sezione delle Belle Arti e il numero dei loro lavori, è dato come appresso:—

Lavori a olio	234	contribuiti da 99 artisti
Acquarelli	145	„ 52 „
Incisioni e litografie	197	„ 62 „
Lavori architettonici	127	„ 51 „
Statue	51	„
Busti e bassirilievi	24	„ 35 „
Totale	778	299

E la stima del valore delle opere Britanniche mandate fu come appresso:—

Quadri a olio	£96,130
Acquarelli	15,653
Incisioni e litografie	1,676
Opere architettoniche	5,765
Sculture	18,336
Totale	£137,560

Ciocchè dà una media del valore di 4117. per ciascun quadro a olio; circa 1087. ciascuno degli acquarelli; e circa 2447. per ciascuna opera in scultura. Incisioni, litografie e disegni architettonici non sono inclusi in questo calcolo per ragioni varie.

In aggiunta ai dati statistici di sopra, relativi allo spazio orizzontale o superficiale dell'Esposizione di Parigi, potrà forse essere interessante notare l'ammontare di superficie verticale occupata da oggetti esposti, e la misurazione lineare o progressiva di tutte le 27 classi industriali.

	Misura lineare Metri	Superficie verticale o murale Metri quadrati
Francia, Algeria e Colonie	18,949	33,421
Austria	2,335	3,512
Belgio	1,509	2,350
Gran Bretagna e Colonie	4,404	6,373
Prussia	1,828	2,796
Svezia	464	442
Svizzera	409	584
Altri paesi	3,871	4,131
Totale	33,769	53,609

NUMERO DEGLI ESPOSITORI.

Il numero totale degli espositori all'Esposizione Universale di Parigi del 1855 fu 23,954. Di questo numero 21,779 erano espositori nelle 27 classi industriali, e 2,175 erano espositori nelle tre classi appartenenti alle Belle Arti.

Il numero degli espositori appartenenti a ciascun paese nelle classi industriali era come appresso:—

	Espositori
Francia	10,003
Algeria	728
Colonie francesi	183
— 10,914	
America (Stati Uniti)	131
America (Sud)	38
Austria	1,298
Baden	88
Baviera	172
Belgio	687
Danimarca	90
Spagna	569
Stati Pontifici	72
Gran Bretagna	1,598
Canada	348
Australia e Van Diemen's Land	405
India	599
Guiana britannica	95
Colonie minori	233
— 3,269	
Grecia	131
Asia	88

Espositori

Nassau	59
Norvegia	121
Paesi Bassi	411
Portogallo	443
Prussia	1,319
Sardegna (Regno di)	204
Sassonia	96
Svezia	418
Swizzera	408
Toscana	197
Città anseatiche	89
Wurtemberg	207

Altri paesi, cioè Anhalt-Dessau e Coethen, 15; Brunswick, 16; Conf. Germ. 20; Egitto, 6; Frankfort-s.-M. 24; Annover, 18; Hawaii, 5; Luxemburg, 23; Sassonia (5 ducati), 23; Tunis, 1; Turchia, 2 . . .	153
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Totale . 21,779

Il numero degli espositori di ciascun paese nella divisione delle Belle Arti è stato già notato.

Cinquantatré stati e ventidue colonie straniere furono rappresentati nell' Esposizione non inclusi la Francia, le tre provincie dell' Algeria e le otto colonie francesi.

Dividendo il numero totale degli espositori, inclusi quelli nelle classi delle Belle Arti, in francesi e esteri i numeri saranno così:—

Impero francese	11,986
Stati esteri	11,968

Totale . 23,954

La grande approssimazione di questi due numeri costituenti il totale non può non esser notata come un fatto molto straordinario.

COSTO DELL' ESPOSIZIONE.

Secondo il rapporto della Commissione Imperiale sull' Esposizione Universale di Parigi del 1855 il costo dell' Esposizione fu come appresso:—

	Franchi	Lire sterline
Divisione industriale	8,961,620 =	358,464 16s.
Divisione delle Belle Arti	2,302,900 =	92,116 0s.
	11,264,520 =	450,580 16s.

Questa somma non include il costo dell' edificio principale o 'Palazzo dell' Industria' posteriormente comprato dal governo francese; per conseguenza la spesa totale per conto dell' Esposizione si deve calcolare a quasi altrettanto, e anche più, ed ammontò ben probabilmente a meglio che un milione di sterline.

Prendendo dunque il costo del Palazzo dell' Industria a 500,000*l.* e dei vari altri edifici

come sono dati nel rapporto della Commissione Imperiale cioè:—

L' annesso	£104,080
Galleria di congiunzione della Rotonda del Panorama	24,280
Edificio delle Belle Arti	42,068
Costruzioni supplementari	4,232

sarà pressochè corretto il dire i soli edifici costarono 674,660*l.*

Calcolando che il totale ammontare dello spazio orizzontale fosse 169,691*l.* metri quadri o circa 1,866,000 piedi quadrati, ed il costo totale indipendentemente dall' acquisto del Palazzo dell' Industria che fosse come di sopra si è detto ne segue che il costo fu 7½*s.* per piede quadrato.

Affinchè la Gran Bretagna potesse essere convenientemente ed adeguatamente rappresentata all' Esposizione Universale di Parigi del 1855 era necessario che il governo britannico porgesse l' assistenza necessaria. Un preventivo fu quindi preparato e sommerso al Parlamento, ed il risultato fu che una somma di 50,000*l.* fu votata da amministrarsi sotto la responsabilità del Ministero del Commercio.

La spesa netta dietro questa elargizione fu 39,259*l.* cioè più che 10,000*l.* meno che il voto parlamentare; prova della rigida economia esercitata nello sborso del denaro.

I pagamenti totali della divisione britannica sotto vari capi del servizio furono come appresso:—

Assesamenti preliminari	£3,171
Noleggi, trasporto di oggetti, spese doganali ecc.	7,588
Uffici e amministrazione a Parigi	3,282
Complemento e decoramento della divisione britannica	3,985
Manutenzione, nettezza e vigilanza	3,446
Remozione e magazzinaggio di casse	943
Stampe, annunzi, francature, cartoleria, ecc.	1,383
Impiegati idonei alla rappresentazione delle materie prime ed apparati scientifici	2,067
Divisione delle Belle Arti	6,477
Giurati e loro rapporti	4,165
Sborsi contingenti	2,752

Totale . £39,259

Uno dei capi principali delle spese inerenti alla divisione britannica delle Belle Arti fu quello di assicurare contro i pericoli delle ferrovie e del mare i vari oggetti contribuiti, all' raidare e tornare come pure contro gl' incendi, perente il transito e mentre esposti. La tassa pagò fu 2*l.* 10*s.* a 3*l.* per cento, e l' ammontare pagato agli agenti del Lloyd e altrove ascese alla somma di 2,715*l.*

ENTRATE.

L' Esposizione Universale a Parigi del 1855 fu aperta al pubblico dall' Imperatore in per-

sona il martedì 15 maggio, ma a quell'epoca l'ordinamento generale era così incompleto e arretrato, che soltanto l'edifizio delle Belle Arti e una porzione delle divisioni industriali erano sufficientemente avanzate per essere visitate. L'annesso dei meccanismi, la rotonda del panorama e gli edifizi esterni non furono aperti fino ad epoca molto posteriore.* Si voleva dapprima aprire l'Esposizione il primo maggio e fu pubblicato un decreto imperiale che annunziava tal giorno, ma fu inevitabile una proroga a causa dello stato incompleto di quasi tutte le divisioni. Il giovedì 15 novembre ebbe luogo la cerimonia della chiusura in presenza dell'Imperatore con grande successo e puntualità. Il venerdì 30 novembre l'Esposizione fu finalmente chiusa, sebbene l'operazione dello sgombrò incominciase difatto il giorno dopo la chiusura e continuasse giornalmente senza interruzione.

Il numero totale dei giorni in cui l'Esposizione rimase aperta, cioè dal 15 maggio al 30 novembre (inclusive) fu esattamente 200, domeniche incluse.

L'entrata era per abbonamento e per pagamenti alle porte. Un giorno, la domenica 27 maggio, l'intera Esposizione fu aperta al pubblico gratuitamente.

Gli abbonamenti erano a 50 franchi (2*l.*) pella divisione industriale, e lo stesso prezzo per quella delle Belle Arti; cosicchè l'abbonamento per l'intera Esposizione costava 100 franchi (4*l.*) Si dettero anche abbonamenti con privilegio limitato a 25 fr. ciascuno (1*l.*) Le tasse di ammissione alla porta erano 5 fr. (4*s.*); 2 fr. (1*3*/₄*s.*); 1 fr. (10*d.*) e 20 centesimi (2*d.*) I lunedì, martedì, mercoledì, giovedì, e sabato l'ammissione era ad 1 fr.; i venerdì a 5 fr. e le domeniche a 20 centesimi (2*d.*) Le stesse tasse di ammissione si fissavano anche per l'edifizio delle Belle Arti. Dopo il 1° agosto l'entrata dei venerdì fu ridotta a 2 fr. e dopo l'11 dello stesso mese fu permesso alle compagnie di strade ferrate ed altre di organizzare treni per l'Esposizione, i passeggeri dei quali (nelle domeniche o lunedì di ciascuna settimana) non solo viaggiavano ad una riduzione del 40 per cento sulla tassa ordinaria, ma avevano libera entrata alle divisioni industriali e delle Belle Arti, o potevano visitarne una sola due volte. Durante il mese di agosto, grandi quantità di operai da tutte le parti della Francia furono ammesse al pagamento di soli 20 centesimi. Tutti i soldati e militari invalidi furono privilegiati di libera quotidiana ammissione in certe quantità fra o le 9 e le 11. Gli alunni delle scuole militari ebbero anche l'entrata libera soggetta ad alcuni regolamenti, ed i membri della stampa si francesi che stranieri godono dello stesso privilegio. Il giorno della cerimonia di apertura solo gli abbonati furono ammessi, come pure il giorno in cui la Regina

Vittoria visitò l'Esposizione, cioè il 24 di agosto.

INCASSI.

Gli incassi totali raggiunsero la somma, di 3,202,485*fr.* o 128,099*l.* 8*s.* Il numero degli abbonamenti fu 4,843, dei quali 4,663 furono pelle porzioni Industriali dell'Esposizione e 180 pelle Belle Arti, che produssero nell'insieme una somma di 200,450*fr.* o 8,018*l.* Deducendo il giorno dell'apertura in cui i soli abbonati furono ammessi, e il giorno in cui l'Esposizione fu aperta gratis al pubblico la media degli incassi giornalieri ammontò a 16,174*fr.* o 646*l.* 19*s.* 2*d.* sterline. Gli incassi pella divisione industriale furono 2,566,195*fr.* (102,647*l.* 16*s.*) e pelle Belle Arti 636,290*fr.* (o 25,451*l.* 12*s.*)—media giornaliera pella divisione industriale 12,960*fr.* (518*l.* 8*s.*) e 3,213*fr.* (128*l.* 10*s.* 5*d.*) pelle Belle Arti.

NUMERO DI PERSONE CHE VISITARONO L'ESPOSIZIONE.

Il numero totale degli ammessi all'Esposizione Universale di Parigi del 1855 fu 5,162,330. Di questo totale 4,180,117 entrarono nelle varie divisioni industriali e 982,213 visitarono le Belle Arti. Nel numero totale però di quelli che passarono alle Belle Arti sono incluse 46,612 persone che andarono alla Esposizione cinese di cui si è fatta menzione. Il numero delle visite fatte dagli abbonati alla divisione industriale si computa a 94,000, e alle Belle Arti 3,800. Il totale di quelli che entrarono alle divisioni industriali nei giorni a 5*fr.* fu 22,747, e alle Belle Arti 11,179, insieme 33,926. Nei giorni a 2*fr.* i totali furono, alla divisione industriale 73,816, e alle Belle Arti 21,872—insieme 95,688. Il numero degli ammessi nei giorni ad un franco fu 2,103,535, dei quali 1,683,798 entrarono alla divisione industriale e 419,737 alle Belle Arti. Il numero totale degli ammessi a soli 20*ci.* (2 pence) ammontò a 2,196,795, di cui 1,752,518 visitarono le divisioni industriali e 444,277 quelle delle Belle Arti. A questi numeri si devono aggiungere 26,322 persone che visitarono la collezione cinese nei giorni in cui il prezzo d'entrata, era mezzo franco.

Il numero approssimativo o calcolato di quelli che entrarono all'Esposizione con biglietto d'espositore fu 445,000, di cui 420,000 passarono all'Esposizione Industriale e 25,000 alle Belle Arti. Di soldati ed invalidi che profittarono del privilegio di visitare le sezioni industriali dell'Esposizione senza pagamento fra le 9 e le 11 il numero totale fu 80,118. E il numero degli studenti delle scuole militari che si valsero del il privilegio d'entrata libera a tutta l'Esposizione fu 797. Il numero totale delle visite che vennero colle escursioni privilegiate le domeniche e lunedì fu 24,455. Bisogna avvertire che questi sono numeri approssimativi del numero di visite fatte all'Esposizione dalle persone delle varie categorie, e che non rappresentano individui separati.

* Macchine agrarie 5 giugno. Annesso 10 giugno. Panorama e Galleria di congiunzione 30 giugno.

Per esempio se un invalido andò all' Esposizione 10 volte fu naturalmente contato come dieci persone e così via.

La domenica 27 maggio quando l' intera Esposizione fu aperta al pubblico gratis il numero totale fu 105,022, dei quali 80,118 passarono alle divisioni industriali e 24,904 alle Belle Arti.

Il maggior numero di ammissioni in un sol giorno in tutto il tempo dell' Esposizione fu nella domenica 9 settembre in cui fu notato che entrarono 123,017 persone. Grandissimo numero di persone vi concorsero in ciascuna delle 24 domeniche dal 3 giugno all' 11 novembre, la media essendone 89,223 ciascuna domenica, e in 8 di quei giorni il numero eccedè considerabilmente 100,000.

È detto che circa 160,000 stranieri visitarono Parigi durante l' Esposizione, più che 40,000 dei quali sudditi britannici; o più che due terzi del numero di tutti gli stranieri che visitarono Londra per l' Esposizione del 1851. E secondo i resoconti della pulizia francese, i vari dipartimenti della Francia mandarono più che 350,000 persone a Parigi durante l' Esposizione del 1855.

GIURATI.

La classificazione dell' Esposizione di Parigi del 1855 fu come appresso:—

- Classe
1. Miniere e prodotti metallurgici.
 2. Foresteria, caccia a corsa e a schioppo, pesca, e prodotti ottenuti senza coltura.
 3. Agricoltura.
 4. Meccanismi in generale, applicati all' industria.
 5. Meccanismi speciali e apparati per ferrovie ed altri modi di trasporto.
 6. Meccanismi speciali e apparati per le fabbriche.
 7. Meccanismi speciali e apparati per la manifattura dei tessuti.
 8. Arti relative alle scienze esatte e all' istruzione.
 9. Oggetti relativi alla produzione economica e l' impiego del calorico, della luce e dell' elettricità.
 10. Operazioni chimiche, tintoria, stampa, carta, cuoio, pelli, gommelastica, ecc.
 11. Preparazione e conservazione di sostanze alimentari.
 12. Igiene, farmacia, chirurgia e medicina.
 13. Arti navali e militari.
 14. Genio civile e costruzioni.
 15. Acciaio e sue produzioni.
 16. Lavori metallici in generale.
 17. Oreficeria, gioiellieria, e bronzi.
 18. Cristallami e vasellami.
 19. Manifatture di cotone.
 20. Manifatture di lana e stame.
 21. Manifatture di seta.
 22. Manifatture di lino e canapa.
 23. Calzetteria, tappeti, ricami, trine d' ogni specie, frange d' oro, argento, ecc.

Classe

24. Mobilia e decoramenti.
25. Oggetti d' abbigliamento; oggetti di moda e di lusso.
26. Disegno e modellatura applicati all' industria, tipografia, stampa in rame, e fotografia.
27. Fabbricazione di strumenti musicali.
28. Pittura, incisione e litografia.
29. Scultura e incisione a conio.
30. Architettura.

Le tre ultime classi costituivano la divisione delle Belle Arti.

Un' altra classe fu aggiunta dopo l' apertura dell' Esposizione, cioè Classe 31, oggetti di economia domestica, consistente in oggetti di notevole utilità ed economia, e per lo più scelti fra gli oggetti esposti nelle altre classi.

AGGIUDICAZIONI.

Per decreto imperiale datato 10 maggio 1855, le ricompense da aggiudicarsi dai giurati internazionali erano come appresso:—

Per le 27 classi industriali—1° Una medaglia d' oro (d' honneur); 2° Medaglia d' argento; 3° Medaglia di bronzo; e 4° Attestato di menzione onorevole.

Per la divisione delle Belle Arti—1° Medaglia d' oro di 1° classe; 2° Medaglia d' oro di 2° classe; 3° Medaglia d' oro di 3° classe; 4° Attestato di menzione onorevole.

Ed in aggiunta a quanto sopra l' aggiudicazione speciale della gran medaglia d' onore.

Aggiudicazioni anche di denaro furono fatte in occasioni particolari. La decorazione della legione d' onore fu largamente distribuita dall' Imperatore a quelli che presero parte nella Esposizione e si può quasi considerare una aggiudicazione addizionale a quelle già menzionate.

Secondo il rapporto della commissione imperiale il valore di ciascuna delle medaglie di oro era come appresso. La gran medaglia di onore 5,000fr. (200%); medaglia d' oro di 1° classe 750fr. (30%); medaglia d' oro di 2° classe 650fr. (26%); medaglia d' oro di 3° classe 550fr. (22%).

Con decreto imperiale posteriore a quello già menzionato la denominazione delle medaglie aggiudicate alle divisioni industriali fu cambiata così: la medaglia d' oro fu chiamata la gran medaglia d' onore; la medaglia d' argento medaglia di 1° classe; e la medaglia di bronzo medaglia di 2° classe.

Nessuna distinta apparisce nel rapporto della commissione imperiale che mostri il numero delle aggiudicazioni in ciascuna classe ed a ciascun paese. Tale informazione è però fornita del rapporto dei giurati, ma in modo che non serve all' oggetto di questa relazione. Ciò è da lamentarsi. L' informazione statistica che una tal tavola avrebbe fornita sarebbe preziosa e interessante.

Furono fatte anche delle aggiudicazioni a

quei cooperatori ed operai britannici (colonie incluse) che sebbene non espositori erano stati partecipi all' invenzione, produzione e ordinamento degli oggetti e sostanze mandati alla Esposizione. Una gran medaglia d' onore, una medaglia d' onore, 27 medaglie di 1^a classe, 56 medaglie di 2^a classe e 42 menzioni onorevoli furono date in tal modo, facendo una totale

aggiunta di 130 aggiudicazioni dai giurati a quelle già enumerate.

Nelle 3 classi delle Belle Arti, il numero totale delle aggiudicazioni fatte agli Espositori britannici furono 64, cioè: 2 grandi medaglie d' onore; 9 medaglie di 1^a classe; 8 medaglie di 2^a classe; 11 medaglie di 3^a classe; e 34 attestati di menzione onorevole.

ESPOSIZIONE INTERNAZIONALE DEL 1862.

I VARI edifici che costituirono l'Esposizione Internazionale del 1862 furono eretti sur un pezzo di terreno immediatamente annesso alla estremità meridionale dei Reali Giardini di Orticoltura al Sud di Kensington, ottenuto a tal fine dai Reali Commissari della Grande Esposizione del 1851. Questo terreno era porzione dei beni che la Real Commissione aveva acquistati, comprandoli col sopravanzo dei redditi dell' Esposizione del 1851 ed un sussidio parlamentare.

La quantità totale della terra così comprata nella vicinanza (anzi contiguità) immediata di questo sito fu di 88 jugeri, e il prezzo 280,000*l.* ossia in media 3,250*l.* per jugero. Dapprimo fu creduto che 300,000*l.* basterebbero a comprare tutta la terra che si desiderava. I Reali Commissari convennero di dedicare 150,000*l.* del loro sopravanzo (170,000*l.* circa) e il Parlamento provvide lo stesso ammontare per assicurar a sè il possesso di quel non caro appezzamento di terreno nella vicinanza immediata della metropoli, onde erigervi sopra istituzioni educative pell' avanzamento delle scienze, arti e industrie.

I beni comprati furono i seguenti.—La proprietà della Gore House quasi in faccia al sito della Grand' Esposizione del 1851; comprende 21 jugeri e costò 60,000; la proprietà De Villars comprata dai fide-commissari del Baron de Villars che comprende 48 jugeri e costò 153,500*l.* Contigui a questi beni vi erano 17 jugeri di proprietà dell' Earl (conte) di Harrington, che furono comprati per circa 66,500*l.*

Nel 1858 il Parlamento sciolse la società che esisteva fra sè e i Reali Commissari; e per conseguenza il totale delle terre acquistate fu devoluto ai Commissari soltanto, ad eccezione di 12 jugeri sui quali gli edifici del Dipartimento delle Scienze ed Arti, meglio conosciuti col nome di Museo South Kensington, adesso stanno, il prezzo di cui (60,000*l.*) il Governo consentì che fosse dedotto dalle 150,000*l.* del già votato sussidio che i Commissari Reali dovevano ora rifondere.

L'edificio principale dell' Esposizione Internazionale del 1862 copriva circa 17 jugeri di terreno, esclusi i due annessi a levante e ponente dei Giardini d' Orticoltura, che si

possono calcolare 7 jugeri più, cosicchè tutta la portata degli edifici copriva un area di buoni 24 jugeri. Nella forma il terreno era quasi rettangolare, misurando circa 1,200 piedi da est ad ovest e 560 da nord a sud. La facciata principale era in Cromwell Road, mentre l'ingresso occidentale era in Prince Albert's Road, e l'orientale in Exhibition Road.

Sebbene la maggior parte della struttura del 1862 fosse solida e di carattere sostanziale, e fabbricata con evidente intenzione di permanenza, fu tuttavia condannata a sparire distrutta, ed il terreno su cui stava ad esser restituito alla condizione anteriore. Grandissimi sforzi furono fatti per salvar l' edificio, particolarmente la lunga estensione delle gallerie dei quadri. Ma il Parlamento comprò il terreno dai Reali Commissari per usi nazionali (con votazione di 120,000*l.* per 17½ jugeri passata il 13 giugno 1862), ma ricusò di conservare gli edifici, che furono quindi rimossi e il terreno interamente sgombrato. Il sito è tuttora disoccupato e nulla rimane ora dell' Esposizione eccetto le sale dei rinfreschi e le gallerie sulle arcate meridionali dei Giardini di Orticoltura, comprate anche esse dal Governo. Queste gallerie sono adesso occupate dal dipartimento delle Scienze ed Arti, dietro un accordo fatto col Ministero dei Lavori Pubblici.

L' edificio o piuttosto gli edifici erano stati eseguiti sui progetti del fu Capitano Fowke del Genio Militare, architetto ed ingegnere del Dipartimento Governativo delle Scienze ed Arti. Gli accollatori pella costruzione furono il Signor Kelk ed i Signori Fratelli Lucas.

DIMENSIONI DI SPAZIO.

L' area totale dello spazio coperto ammontava a 1,291,800 piedi quadrati, dei quali 147,700 piedi quadrati erano occupati dalle sale dei rinfreschi, uffici, ingressi e scale, lasciando 1,144,100 piedi quadrati utilizzabili per l' uso dell' Esposizione. Nel dividere lo spazio i Reali Commissari osservarono la regola ora generalmente accettata, di darne una metà al paese che contiene l' esposizione e l' altra metà ai paesi esteri.

NUMERO DEGLI ESPOSITORI.

Il numero totale degli espositori all' Esposizione Internazionale del 1862 fu 28,653, incluso 2,305 artisti, le cui opere furono esposte in 4 classi del dipartimento delle Belle Arti. Nelle 36 classi industriali il numero degli espositori fu 26,348:—di questo numero 8,487 furono espositori britannici (colonie incluse), e 17,861 furono espositori di paesi esteri. Nella divisione delle Belle Arti il numero rappresentato dagli artisti britannici fu 990, e dagli esteri 1,315; e il numero totale delle opere esposte fu 6,529, delle quali 3,651 erano britanniche 2,878 straniere.

SPESA.

La spesa totale dell' intrapresa si può stabilire in numeri tondi 460,000*l*. Prima di menzionare i vari titoli che compongono la spesa totale giova premettere che il contratto pella intera costruzione, incluso il jugero centrale per gallerie di quadri e l' annesso occidentale, fu per l' uso e consumo, con diritto di compra, a condizioni specificate, alla chiusura dell' Esposizione. Pella condizioni del contratto era convenuto che i costruttori ricevessero 200,000*l*. in modo assoluto, a 100,000*l*. addizionali se gl' incassi si elevarono a mezzo milione. Se però essi ricevessero le 300,000*l*. il jugero centrale delle gallerie dei quadri diverrebbe proprietà dei Commissari dell' Esposizione.

Si deve anche far menzione che per far fronte ad ogni possibile perdita pecuniaria in così vasta impresa, la Società delle Arti aveva raccomandato ai Reali Commissari dell' Esposizione del 1861, lo stabilimento di un fondo di garanzia di non meno di 250,000*l*. Quindi fu fatto perciò appello al pubblico e riuscì oltre l' aspettativa, giungendo l' ammontare sottoscritto a più che 450,000*l*. A termini dell' atto di garanzia, la responsabilità di ciascun garante era limitata alla proporzione *pro rata* dell' intera somma che si dovesse chiamare. Il numero dei garanti che firmarono l' atto fu 1,252 e il limite della responsabilità fu fissato a 250,000*l*.

I titoli principali delle spese sono i seguenti:—

	£
Accollatori pella costruzione, incluse 86,833 <i>l</i> . pell' annesso orientale . . .	320,680
Progetti, disegni e soprintendenza tecnica	8,323
Strade e approcci	13,359
Pulizia	19,436
Assicurazione e pompieri	4,088
Onorari e salari	45,778
Affitto, tasse, risarcimenti, mobilia, stampa, cartoleria, annunci e spese incidentalì	11,749

Manutenzione, inclusa cerimonia di apertura, dichiarazione delle ag- giudicazioni, gas, combustibile, acqua, ecc.	£9,690
Trasporto di quadri, ecc.	4,202
Medaglie	6,410
Spese preliminari e legali	3,668
Computazione dello spazio e distri- buzione generale	3,676
Interesse sull' imprestito dalla Banca d' Inghilterra, meno in- teresse sugl' investimenti	7,331
Altre spese non enumerate	1,247
Totale	£459,637

Prendendo dunque il costo totale dello edificio dell' Esposizione a 321,000*l*. e il totale ammontare dello spazio coperto a 1,292,000 piedi quadrati il costo per piede quadrato fu circa cinque scellini.

AMMISSIONI.

L' Esposizione Internazionale del 1862 fu aperta al pubblico il primo maggio e fu chiusa il sabato 15 novembre, ciò dà un totale di 171 giorni in cui il pubblico fu ammesso.

Le disposizioni che regolarono le ammissioni del pubblico furono:—

- 1° per abbonamento;
- 2° per pagamento alle porte.

Il giorno dell' apertura non furono ammessi che gli abbonati. Nei due seguenti giorni l' ammissione fu 1*l*.; dal 5 al 17 maggio (inclusive) 5 scellini a testa; dal 19 al 31 maggio (inclusive) 2½ scellini, eccetto i sabati di ciascuna settimana in cui era 5 scellini; dal 2 al 14 giugno l' ammissione fu pei primi quattro giorni in ciascuna settimana 1*s*.; i venerdì 2½*s*.; e i sabati 5*s*. Dal 16 giugno al primo novembre (inclusive) l' ammissione fu 1*s*. pei primi quattro giorni in ciascuna settimana e 2½*s*. i venerdì e sabati, eccettuato il venerdì 11 luglio (giorno della dichiarazione delle aggiudicazioni fatte dai giurati), in cui fu di 10*s*. a testa; e dal 3 al 15 novembre (inclusive) l' ammissione in ciascun giorno fu 2½*s*.

Gli abbonamenti furono di due specie—abbonamento ordinario a tre ghinee e abbonamento speciale a 5 ghinee a testa. I biglietti di abbonamento speciale davano diritto allo abbonato di libera ammissione alle esposizioni di fiori, feste e passeggiate di gala, date nei giardini della Società Reale d' Orticoltura durante il tempo in cui l' Esposizione rimarrebbe aperta, porzione di tale aumento essendo passata a quelle Società in considerazione dei privilegi accordati a tali abbonati. Nel mese di luglio i prezzi di abbonamento furono ridotti a metà, e si dettero abbonamenti (pei

soli giorni ad uno scellino) per 10s. a testa. Inoltre fu permesso l'acquisto di mazzi di 25 biglietti d'ammissione giornaliera per 20s. tosto dopo che fu aperta l'Esposizione.

INCASSI.

Gli incassi lordi o netti da qualsiasi sorgente furono come appresso:—

	£	s.	d.
Abbonamenti . . .	79,672	1	3
Pagamenti alle porte . . .	328,858	0	5
Appalti per rinfreschi . . .	29,285	4	11
Cataloghi Officiali . . .	3,919	1	10
Licenze di Fotografare . . .	1,925	0	0
Licenza per dar a nolo dei canocchiali . . . }	250	0	0
Affitto per Ufficio del Telegrafo . . . }	100	0	0
Pel deposito degli Om- brelli . . . }	2,118	12	10
Camerini . . .	1,000	0	0
Commissione su foto- grafie, medaglie, ecc., vendute nell'edifizio . . . }	1,241	9	6
Miscellanee . . .	262	1	5
Contribuzione dagli ac- collatori della costru- zione, per convenzione)	11,000	0	0
	459,631	12	2

La seguente è la distinta del numero degli abbonamenti presi:—

	£	s.	d.
A 5 ghinee . . .	5,773	= 30,308	5 0
A 3 „ . . .	17,719	= 55,814	17 0
A 50s.	26	= 65	0 0
A 30s.	919	= 1,378	10 0
A 10s.	3,363	= 1,681	10 0
	89,248	2	0

Meno 8,672l. 5s. pagati alla Società Reale d'Or- ticoltura secondo con- venzione accennata, e 903l. 15s. 9d. per com- missione agli agenti . . . }	9,576	0	9
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Totale . 79,672 1 3

La maggior somma presa alle porte in qualunque giorno fu 2,935l. 13s. 4d. il lunedì 30 ottobre, cioè l'ultimo giorno ad uno scellino; e la minor somma presa in alcun giorno fu 241l. il sabato 3 maggio, in cui l'ammissione era 1l. a testa. La media degl' incassi quotidiani alle porte per tutto il periodo dell'Esposizione, eccettuato il primo giorno, in cui i soli abbonati furono ammessi, ascende a circa 1,934l.

I seguenti sono i vari totali presi alle porte secondo ciascun tasso di ammissione:—

Incasso totale di due giorni		£	s.	d.
	a 20s.	506	0	0
„	„ uno „ 10s.	1,052	8	4
„	„ 16 „ 5s.	17,823	8	5
„	„ 63 „ 2½s.	96,066	14	3
„	„ 88 „ 1s.	213,409	9	5
170 giorni £328,858 0 5				

Cosicchè gl' incassi quotidiani alle porte raggiunsero in media nei giorni a 5s. 1,114l., nei giorni a 2½s. a 1,525l., e nei giorno a 1s. a 2,425l.

NUMERO DEGLI AMMESSI.

Il numero totale degli ammessi all'Esposizione Internazionale del 1862 ascese a circa sei milioni e un quarto, il numero esatto dato nel rapporto ufficiale essendo 6,211,103. La media quotidiana fu di 36,328, ed il massimo numero in qualunque giorno, cioè il giovedì 30 ottobre (giorno ad 1s.) fu di 67,891. Il minor numero ammesso fu il mercoledì 5 novembre (ammissione 2½s.), cioè 5,615, ma siccome l'Esposizione era allora virtualmente terminata, è appena giusto di prender quel numero come del minor concorso in qualunque giorno. Sarebbe quindi più giusto prendere il minor numero in qualunque giorno fra il primo maggio e il primo novembre, cioè 7,367 il giovedì 15 maggio, giorno a 5 scellini.

Sebbene gli espositori non avessero diritto all'ammissione gratuita dopo l'apertura della Esposizione, pure fu data ogni facilità all'ammissione di coloro la cui presenza fosse assolutamente necessaria.

Il rendiconto seguente mostra i totali degli ammessi per abbonamento, per permessi gratuiti, e pagamenti alle porte:—

Abbonamenti ordinari . . .	770,704
Abbonamenti pei giorni ad 1s. . .	58,536
Permessi gratuiti ad espositori, addetti e personale . . . }	257,246
Pagamenti alle porte, biglietti pel giorno, e di ritorno dai giardini d'Orticoltura . . . }	5,124,617
	6,211,103

La media quotidiana delle ammissioni per abbonamento e alle porte alle diverse tasse di pagamento è come appresso:—

	Medie degli ammessi quotidianamente
Abbonati . . .	4,507
Abbonati pei giorni a 1s. . .	829
A tasso d'ingresso 5s. . .	12,352
„ „ 2½s. . .	19,610
„ „ 1s. . .	44,904

Da un resoconto ufficiale dimostrante il numero degli ammessi negli stessi giorni di ciascuna settimana, apparisce che nei

<i>Lunedì</i> , il totale in massa era	1,240,615
<i>Martedì</i> , „ „	1,286,213
<i>Mercoledì</i> , „ „	1,203,658
<i>Giovedì</i> , „ „	1,270,388
<i>Venerdì</i> , „ „	641,996
<i>Sabati</i> , „ „	568,233

La media del concorso diurno nei lunedì era 44,307; nei martedì 45,936; nei mercoledì 43,988; nei giovedì 44,806; nei venerdì 22,138; e nei sabati 19,594. L' approssimazione nelle medie dei quattro primi giorni è molto notevole.

Tutti coloro che diurnamente si presentarono con permessi di qualunque sorte sono inclusi nella Tavola qui sopra, come pure nei precedenti dati statistici relativi al numero degli ammessi. Il numero totale delle persone così privilegiate è stato già dato.

Classe		Giurati	Giurati associati
1	Miniere, cave, metallurgia e prodotti minerali	16	3
2	Sostanze e prodotti chimici e processi farmaceutici	24	3
3	Sostanze alimentari	45	3
4	Sostanze animali e vegetabili usate nelle industrie	45	6
5	Materiale di ferrovia, incluso locomotive e carrozze	11	0
6	Carrozze non addette a ferrovie a vapore nè a cavalli	6	1
7	Macchine fabbricatrici e arnesi	15	3
8	Meccanismi in generale	30	2
9	Macchine e attrazzi agrari ed orticoli	18	1
10	Cose attenenti al genio civile, architettura e costruzioni	23	2
11	Genio militare, armature e buffetterie, artiglieria e piccole armi	23	1
12	Architettura navale e attrazzi navali	14	3
13	Strumenti fisici, e processi dipendenti dal loro uso	13	4
14	Apparati fotografici e fotografia	5	2
15	Strumenti d' orologeria	9	0
16	Strumenti musicali	11	0
17	Strumenti chirurgici e applicazioni	7	4
18	Cotone	12	2
19	Lino e canapa	9	0
20	Seta e velluto	11	1
21	Tessuti di lane e stami, e tessuti misti inclusi	16	8
22	Tappeti	6	0

Classe		Giurati	Giurati associati
23	Tessitura, filatura, infeltritura e preparazione dei tessuti per saggi di stampatura e tintura	10	1
24	Tappezzerie, trine e ricami	11	1
25	Pelli, pellicce, piume e pelo	11	2
26	Cuoio, incluso sellerie e finimenti da cavalli	15	1
27	Oggetti di vestiario	24	1
28	Carta, cartoleria, stampa e rilegatura	24	1
29	Opere ed applicazioni educative	21	5
30	Mobilia tappezzeria, incluso carte da parati e cartapesta	19	0
31	Ferro e chincaglierie in generale	24	3
32	Acciaio, coltellineria e strumenti taglienti	13	0
33	Lavori in metalli preziosi e loro imitazioni, e gioie	12	1
34	Cristallami	13	2
35	Vasellami	9	0
36	Toilette, scrivanie e cassette da viaggio	7	1
	Totale	582	68

Nella tavola qui sopra sono inclusi 15 Giurati specialmente nominati per le pompe da incendio nella classe 8.

AGGIUDICAZIONI.

Nell' Esposizione Internazionale del 1862 non vi furono gradazioni di Medaglie; una sola specie di medaglie fu aggiudicata dai giurati; anche Certificati di Menzioni Onorevoli furono aggiudicati. Il numero totale delle Medaglie aggiudicate fu 8,141 e Menzioni Onorevoli 5,282: di queste aggiudicazioni 2,382 Medaglie, e 1,697 Certificati di Menzioni furono date alla Gran Bretagna e sue colonie; e 5,759 Medaglie e 3,585 Certificati ai paesi esteri che esposero.

Nessun' aggiudicazione fu fatta nelle quattro classi di Belle Arti.



TAVOLA DELLE MONETE, MISURE E PESI INGLESI,

DELLE QUALI SI È FATTO USO NELLE NOTE STATISTICHE SULL' INDUSTRIA ED IL COMMERCIO DEL
REGNO UNITO PER RIDURLI IN MONETE, MISURE E PESI FRANCESI.

		MONETE, MISURE E PESI	
		D' INGHILTERRA	DI FRANCIA
		<i>Unità</i>	<i>Unità</i>
MONETE . . .	{	Lira (l.) sterlina	25 franchi
		Scellino (s.)	1.25 „
		Soldo (d.)	0.104 „
MISURE	{ DI LUNGHEZZA	Yarda	0.9140 metri
		Miglio (di 1,760 jarde)	1609.31 „
	{ DI SPAZIO	Acre quadrato	20.47 „
		Load o last di legna da costruzione	1.133 „
	{ DI SOLIDITÀ	di 40 piedi d misura cubica	
		Load o last di legni da costruzione	1.416 „
		di 50 piedi di misura cubica	
	{ DI CAPACITÀ	Gallone imperiale	4.54 litri
		Stajo (8 galloni)	36.34 „
		Quart, di grano, 8 boisseau	2.91 ettolitri
		Barile di birra (36 galloni $\frac{6}{10}$)	1.66 „
		Barile di pesce	1.21 „
		Botte d'olio di pesce	9.53 „
		do. d'olio di grani	8.94 „
PESI	{	Oncia (oz.) avoirdupois	28.34 gramme
		Libbra (lb.) di 16 oncie	0.434 kilogrammi
		Quintale o cantaro (ewt.) di 112 libbre	50.80 „
		Tonnellata di 2,240 libbre	1016.048 „



INTRODUZIONE GENERALE.

PARTE I.—IL REGNO BRITANNICO.

IL seguente sommario statistico della Gran Bretagna è stato redatto secondo il desiderio espresso ai delegati di Sua Maestà dai delegati imperiali francesi per l'Esposizione Universale del 1867, in una lettera del 15 settembre 1866, chiedendo informazioni assai dettagliate sulle diverse categorie di territorio, popolazione, prodotti, commercio nostrale ed estero, marina mercantile, armata, marina reale, finanza, ecc. ecc.

TERRITORIO.—Posizione Geografica—Mari—Montagne—Fiumi—Aspetto del Paese—Clima.

(a.) *Posizione Geografica.*—Il Regno Unito, il quale comprende l'Inghilterra ed il Principato di Galles, la Scozia, l'Irlanda, l'Isola di Man, e le isole della Manica, è situato al nord-ovest del continente europeo, tra 50° e 58° 41' nord di latitudine, e 1° 46' est e 10° 26' ovest di longitudine.

(b.) *Mari.*—Il regno è circondato al nord ed all'ovest dall'oceano atlantico, al sud dalla Manica, ed all'est dal mare del Nord. L'Irlanda è separata dall'Inghilterra dal mare irlandese. La costa marittima del regno, in proporzione colla sua grandezza, è dunque assai considerabile.

(c.) *Montagne.*—Varie sono le catene di montagne esistenti nel regno britannico, ma la loro elevatezza è d'assai inferiore a quelle degli stati europei continentali. Le quattro catene principali sono: 1° Le Pennine, che si stendono verso il mezzogiorno delle Cheviots, sui confini della Scozia presso Derby, e le di cui cime principali percorrono uno spazio di 3,000 piedi. 2° La giogaja di Cumbria, situata la maggior parte in Cumberland e Westmoreland, possiede le più alte cime in Inghilterra, cioè, Helvellyn, 3,055 piedi; Scafell, 3,166, e Skidaw, 3,022 piedi. 3° La giogaja di Cambria, stendendosi quasi su tutta la provincia di Galles, la di cui cima più alta è Snowdon, cioè, 3,571 piedi; e 4° La giogaja di Devon, che si stende attraverso le contee di Somerset, Devon e Cornwall; le cui cime più alte non trepassano 1,800 piedi.

Nella Scozia la catena principale di molti è quella delle Grampians. La montagna più alta

nella Scozia, ed anche nel regno britannico, è Ben Nevis, dell'altezza di 4,406 piedi sopra il livello del mare. I monti di Cheviot situati in parte nella Scozia ed in parte nell'Inghilterra si stendono attraverso un gran tratto di paese.

In Irlanda, le montagne principali sono la Mourne, e le giogaje di Wicklow. La cima più alta è Carran Tual nella contea di Kerry, che ha un'elevazione di 3,414 piedi.

(d.) *Fiumi.*—Il fiume più importante in Inghilterra, benchè non sia il più lungo, è il Tamigi, sul quale è situata la metropoli. Ha origine dalle acque dei monti di Gloucestershire che colano sotto il nome dell'Isis e si congiungono al medesimo conservando quindi il suo nome ordinario di Tamigi. Sorge verso il levante, e sbocca nel mare tedesco, dopo un corso di quasi 215 miglia.

Gli altri fiumi importanti sono il Severn, che percorre uno spazio di 240 miglia e sbocca nella manica di Bristol, il Trent, Tyne, Wear, Tees, Ouse, Humber, Mersey, Dee, Wye, Medway, ed il Avon. Diversi porti del paese sono situati sulle rive di questi fiumi—come Newcastle e Shields sono sul Tyne; Hartlepool, Stockton e Middlesborough sul Tees; Hull sul Humber; e Liverpool sul Mersey. I principali fiumi scozzesi sono il Tweed, Forth, Tay, Spey ed il Clyde. Leith è situato sul Forth, Dundee sul Tay e Greenock ed il porto di Glasgow sul Clyde.

I fiumi principali d'Irlanda sono il Shannon di 159 miglia di lunghezza, il Suir, Barrow, Slaney, Boyne, Bandon, Bann, ed il Liffey.

(e.) *Superficie del paese.*—Vi sono pochi paesi che presentano una varietà più grande dell'Inghilterra, ed in forza della dolcezza del clima e della giusta abbondanza di pioggia, il terreno è eccessivamente fecondo, ed ammirabilmente prestante alla coltivazione del grano et delle radici, come della pastura. All'esclusione del terreno incolto e delle pasture sui monti, due terzi dell'area del regno erano in coltivazione nel anno 1866. La provincia di Galles è la più montuosa d'Inghilterra, e ad eccezione delle pasture dei monti, solamente circa una metà dell'area della provincia di Galles, e la quinta parte di quella della Scozia erano conosciute in coltivazione nell'anno sopradetto.

L' Irlanda è comparativamente un paese piano e possiede una grand' estensione di terreno marese; ed abbenchè non così ben coltivato come le altre parti del regno, e minore sia la produzione dei raccolti, a cagione della umidità del clima, ha però mollissimi prati d' una grand' estensione, e pasture di monti. Nell' anno 1866, la metà circa dell' area totale del regno era rapportata come in coltivazione permanente, incluso le pasture sumonti.

(f.) *Clima.*—Il clima d'Inghilterra è salubre e dolce, pero in alcune località è più umido e variante che quello d' ogni altro paese, situato alla stessa distanza dell' equatore. Per la sua posizione geografica, l' Inghilterra va soggetta all' influenza delle correnti d' arie calde che vengono dal sud e sud-est dell' Atlantico, e dai freddi portati dai venti del nord. I vapori provenienti dall' Atlantico e le colonne d' aria glaciale alternandosi troppo frequentemente,

costituiscono le cause principali della volubilità ed incostanza della temperatura.

La temperatura di Scozia, comparata con quella d' Inghilterra, è molto più fredda: però le numerose baje e bracci di mare che s' internano lungo le coste mitigano in parte l' estremo rigore, ed il freddo (ove si voglia tener calcolo della posizione settentrionale di questo paese) non è tanto sensibile.

Il clima d' Irlanda è più dolce ed umido che quello d' Inghilterra e Scozia, e molto più adattato alla pastura che per altri raccolti. Le piante che abbisognan di caldo artificiale in Inghilterra, prosperano all' aria aperta in Irlanda.

La tavola seguente compilata sui rapporti forniti dal Professore Airy, astronomo reale, mostra gli *estremi* della temperatura e della pioggia verificatisi nelle tre divisioni del regno nei passati venticinque anni.

Stazioni	Latitudine (al norte)	Longitudine (all'ovest)	Altezza della stazione sopra il livello del mare	Temperatura media annuale		Quantità media di pioggia annuale	
				Più alta	Più bassa	Massima	Minima
In Inghilterra e Gales :	° /	° /	Piedi	°	°	Pollici	Pollici
Bedford	52 8	0 28	100	52.2	47.8	32.6	16.8
Clifton, presso Bristol	51 28	2 38	228	50.2	46.5	40.8	23.7
Greenwich	51 28	0 0	159	51.3	47.0	34.2	16.9
Guernsey	49 33	2 40	204	52.1	47.8	49.1	25.6
Helston	50 7	5 18	106	53.9	48.8	46.6	28.6
Lampeter	52 7	4 5	420	50.1	46.0	55.3	32.2
Newport	50 42	1 17	20	51.4	47.7	47.6	20.5
Nottingham	52 57	1 10	174	49.9	46.3	36.5	17.5
Oldham	—	—	500	—	—	44.1	18.7
Oxford	51 46	1 16	234	50.6	46.2	35.4	14.9
Seathwaite (Borrowdale)	—	—	368	48.9	46.6	182.6	117.5
Whitehaven	—	—	90	50.9	48.7	56.0	34.7
In Iscozia :							
Aberdeen	57 9	2 5	90	—	—	43.8	16.5
Applegarth	—	—	180	—	—	42.5	25.6
Carbeth	56 0	4 22	505	—	—	51.5	30.5
Doune	—	—	—	—	—	54.4	28.7
Dumfries	55 4	3 36	61	52.9	50.0	46.9	27.8
Edinburgh	55 58	3 8	{ 307 } { *372 }	51.3	47.9	23.7	14.4
Glasgow	55 53	4 17	{ 110 } { *166 }	52.6	49.9	37.2	22.3
Glengyle (Loch Katrine)	—	—	380	—	—	112.5	65.5
Haddington	—	—	—	—	—	29.8	17.3
Fondo della Valle di Duchray } (Ben Lomond) }	—	—	1,800	—	—	117.0	67.2
Inveresk	55 56	3 3	90	48.6	44.8	32.9	21.4
Sandwick (Orkney)	—	—	100	48.4	45.1	44.4	27.4
In Irlanda :							
Armagh	54 21	6 39	211	—	—	43.2	30.5
Belfast	54 35	5 56	27	52.5	50.4	39.2	24.3
Dublin†	53 22	6 21	150	50.3	47.0	38.5	21.5
Enniskillen	54 20	7 34	246	52.0	50.5	49.6	29.4
Limerick	52 39	8 38	160	51.1	49.0	42.2	30.8

* Elevazione della misura da pioggia.

† Le cifre indicanti la temperatura dal 1853 al 1865 e la quantità di pioggia dal 1853 al 1860 sono estratte dalle statistiche intabellate dal Capitano Wilkinson del Genio Militare a Dublino.

AMMINISTRAZIONE.—Generale—Governò locale — Stabilimenti Religiosi — Capoluoghi.

(a.) *In Generale.*—In Inghilterra il governo

costituzionale è chiamato comunemente 'mixed form,' il potere legislativo è tenuto distinto dal potere esecutivo, l' ultimo è investito dal re o dalla regina solamente, che anche essi rappresentano lo stato in tutte le transa-

zioni internazionali e trattati, mentre il potere legislativo è riservato al gran consiglio nazionale, chiamato il parlamento, composto dei tre capi del regno, cioè, della regina, dei nobili spirituali e temporali, e dei deputati. La Regina è suprema; da lei sono decretate le nuove leggi col consenso delle due camere legislative; il suo ufficio è ereditario. I nobili spirituali e temporali sono i prelati e pari del regno. I deputati o rappresentanti scelti dal popolo, sono parte eletti nelle contee, e parte nella città e borghi, e la loro elezione ha luogo poco prima dell'apertura del parlamento, conservando il loro seggio e qualità per la sola durata di quella sessione parlamentare.

I nobili (lords) formano una camera; i deputati un'altra. La Regina siede in mezzo ai nobili, ma tiene il suo posto solamente nelle occasioni formali, come allorchando ella apre la tornata del parlamento, od approva i *bills* passati alle due camere. In rapporto colla vigente costituzione ella non può essere presente qualunque deliberazione; nè tampoco essere edotta su quanto succede, sia nella camera dei pari o in quella dei deputati, che dietro comunicazione ufficiale. Non si posson far leggi, nè imporre una tassa, senza il permesso del Parlamento, della Regina, e delle due camere dei nobili e dei deputati; e questo assenso deve risultare dal scrutinio segreto. La Regina però ha voce negativa solamente; e nessuna misura può originare da lei, a meno che non si tratti di un atto di grazia. Le due camere hanno il potere di decretare ogni misura senza restituzione, eccettuato quella dei *bills* relativi ai diritti dei pari o contenenti concessioni di denaro, le quali debbono passarsi alla camera dei nobili, o dei deputati rispettivamente; nè nell'un o l'altro caso il *bill* presentato così ad una camera può subire alcun cambiamento dall'altra. Il parlamento è convocato dalla Regina, ed è prorogato o disciolto da lei quando lo trova conveniente. Essa è però obbligata di convocarlo almeno una volta per anno e più volte se necessario.

Una proroga è una continuazione del parlamento da una sessione ad un'altra; una dissoluzione è la sua morte civile. La durata legale è fissata a sette anni, a meno che sia sciolto antecedentemente da una proclamazione reale. Tutti i doveri, siano amministrativi ed esecutivi del governo, sono effettuati in nome della Regina. Con un sistema che risponde a tale intento, ella sorveglia l'amministrazione della giustizia, ed osserva che la legge abbiano il loro effetto. Tutte le aule dei giudici, e loro concomitanti, cioè ufficiali, giudici, sceriffi, giudici di pace, guardie civiche, ecc. sono nominati ed hanno investitura direttamente da lei. È dovere ed ufficio della Regina di reprimere disturbi e conservare la pace del regno; ogni violazione della quale è chiamata infrazione di pace. Nelle relazioni estere, essa stabilisce la pace o la guerra, negozia trattati, manda ambasciatori negli altri stati, e riceve gli esteri al di lei palazzo. In aggiunta al carico di questi

onerosi doveri la regina dispone della intera forza nazionale, tanto militare che civica, e nomina gli ufficiali. La paga dell'esercito è provveduta dall'autorità del parlamento intero. Nell'esercizio delle sue prerogative, i di cui limiti sono confirmati dalla legge, non è responsabile verso alcuno; ed ancorchè emettesse un atto fuori della sua giurisdizione e non conforme al potere riconosciuto dal regno, ella è esente da tutta responsabilità personale. Per i motivi suesposti la regina in tutti i suoi atti adopra l'azione degli ufficiali o persone non protette da tale esenzione legale, e uniformemente lascia le redini degli affari dello stato a suoi ministri, dei quali un certo numero formano parte del consiglio de' ministri.

Gli atti del potere esecutivo sono anche di necessità assoggettati ad un altro freno efficacissimo. Le rendite ordinarie del regno non essendo proporzionate ai bisogni dello stato è divenuto necessario di ricorrere frequentemente ai deputati per sussidii pecuniarii. In tale occasione i disegni de' ministri sono spesso volte materia di discussione tra i deputati, ed i mezzi per effettuarli posson essere o rifiutati o concessi a giuste condizioni. E chiaro, però, che il potere di rifiutarli totalmente non può esser esercitato vantaggiosamente se non quando sono essenzialmente necessari alla comune prosperità; per esempio sarebbe ridicolo per i deputati volendo tener in soggezione i ministri, di ricusare il pagamento al creditore pubblico, o il mantenimento delle istituzioni civili e militari.

(b.) *Governo locale.*—In quanto al governo locale, il paese è diviso per proposti civili nelle contee, città, borghi e parrochi. Gli affari ministeriali e giudiziali della contea sono trattati dal capo sceriffo, il coroner, ed i giudici di pace. Il governo militare è affidato al governatore della contea ed ajutato dal sotto governatore. Il governatore della contea ha il comando della milizia, ed è spesso volte i *custos rotulorum* o guardiano dei registri della contea. I soggetti principali del governo locale sono la conservazione di pace e dell'ordine; il mantenimento dei poveri e della polizia; costruire e tenere in ordine le strade, i ponti, i rivi, ecc. ecc. Il denaro necessario per arrivare a questo fino è ottenuto per mezzo d'una imposta sulla proprietà, cioè terre, case, ecc. nella contea.

Il governo municipale della città e borghi è costituito del podestà e corpo municipale e quello dei parrochi ed alcuni parrochiani. In molti borghi popolosi non uniti in corporazione, Commissari e Comitati come Comitati locali di Salute, Commissari per miglioramenti o intraprese di lavori utili e sistemazione degli affari locali, sono eletti da quelli che pagano tasse municipali, sotto l'autorità del parlamento.

(c.) *Stabilimenti Religiosi.*—La religione dominante in Inghilterra è la Protestante Episcopale, benchè tutte le religioni siano tollerate.

L'amministrazione della religione dello stato è affidata agli ecclesiastici, una casta destinata a questo proposito, e costituita secondi i riti della chiesa anglicana. Il loro mantenimento è tirato da rendite provenienti da terre, decime, imposte ecclesiastiche, affitto dei banchi, offerte di Pasqua, e dai tributi pagati per i battesimi e sepoltura ecc. Le divisioni ecclesiastiche d'Inghilterra e di Galles sono provincie o arcivescovati, arcidiaconati, diocesi o vescovati, decanati, e parrocchie, ognuno dei quali ha i suoi funzionari, ed a questi sono sottomessi funzionari delle divisioni inferiori — la Regina come capo della Chiesa reggendo tutto. Vi sono due arcivescovi, quelli di Canterbury e York, e venticinque vescovi. Per la gestione degli affari ecclesiastici ogni provincia havvi un consiglio, chiamato convocazione, il quale comprende i vescovi, arcidiaconi, e decani in persona, con un certo numero di procuratori, rappresentanti del clero inferiore. Questi consigli sono radunati dai rispettivi arcivescovi in ubbidienza al mandato della regina. Le quistioni degli affari del clero dissidente vengono definite frà loro. La chiesa scozzese è governata da una assemblea generale che si raduna annualmente. Un rappresentante del sovrano, chiamato 'Lord High Commissioner' interviene alla radunanza. La chiesa d'Irlanda, come quella d'Inghilterra, è protestante episcopale, ed è governata similmente. Però, la più gran parte della popolazione irlandese segue la fede cattolica romana.

(d.) *Città Principali.*—Le città, ed i borghi i più importanti d'Inghilterra sono Londra, Liverpool, Manchester e Salford, Birmingham, Leeds, Sheffield, Bristol, Wolverhampton, Newcastle-sopra-il-Tyne, Stoke-sopra-il-Trent, e Hull. La popolazione di ogni città soprannominata, oltrepassa 100,000 anime. Vi sono anche settantadue borghi in Inghilterra e Galles dei quali la popolazione oltrepassava 20,000 anime, secondo il censo del 1861. Le città principali della Scozia sono Edimburgo, Glasgow, Dundee, Aberdeen, Paisley, Greenock, Leith e Perth; e nell'Irlanda, Dublino, Belfast, Cork, Limerick, Waterford e Londonderry. La popolazione delle tre città metropolitane nel 1861 fu: in Londra, 2,803,989 persone; in Edimburgo, 170,444, ed in Dublino, 314,409.

AREA.—Totale—Costiera—Porti.

(a.) *Totale.*—L'area totale del Regno Unito è di 121,115 miglia quadrati, ossia 77,513,000 jugeri di statuto, che sono divisi come segue.

(b.) *Costiere.*—L'estensione dell'Inghilterra e di Galles è stimata d'essere circa 2,000 miglia, e quella della Scozia 2,500 miglia. L'Irlanda ha circa 750 miglia di circuito, gran parte del quale, particolarmente dall'ovest e dal sud-ovest, è profondamente solcato dall'oceano atlantico.

Divisione, ecc.	Area		Estensione rapportata in 1866 d'essere sotto Coltivazione, Nudo, Fulvo, ed in Erba
	In Miglia quadrati	In Jugeri di Statuto	
Inghilterra	50,923	32,590,000	Jugeri 22,262,000
Galles.	7,398	4,735,000	2,284,000
Inghilterra e Galles.	58,321	37,325,000	24,546,000
Scozia	30,685	19,639,000	4,158,000
Irlanda	31,755	20,322,000	15,550,000*
Isole nei Mari Britanniche	354	227,000	115,000
Totale nel Regno Unito	121,115	77,513,000	44,369,000

* Il numero di jugeri in erba si comprende in questa cifra; l'area dell'Irlanda coltivata pare perciò proporzionalmente più grande che quella delle altre divisioni del regno per le quali non si fa conto del terreno in erba.

(c.) *Porti.*—I migliori porti, sia nella Gran Bretagna, sia nell'Irlanda, sono situati sulle coste del sud e del sud-ovest, quelli dell'est non offrendo che poca comodità per i bastimenti.

I porti più grandi del Regno Unito sono quelli di Portsmouth, Plymouth, Milford Haven e Cork, e sono superiori alla maggior parte, se non a tutti altri nel mondo. Godono di una gran profondità, e sono capaci di dar asilo alla più numerosa flotta che esiste. I porti di Holyhead e Dover ora in via di costruzione, daranno anche un rifugio considerabile alle navi. Spese grandissime sono state fatte a diversi altri porti del regno. Il porto di Londra è il principale trà quelli di fiume nella Gran Bretagna. Il secondo fiume commerciale del regno è il Mersey. Newcastle, Hull, Bristol, Grenock, Sunderland, Leith, Dundee, Aberdeen, Port Patrick, Kingstown, ed altri porti numerosi ricevono bastimenti di gran portata; ed altri porti inferiori in diversi parti del regno ricettano bastimenti di picciola mole, ed in questo modo facilitano di molto il commercio interno del regno.

MEZZI DI COMUNICAZIONE.—(a.) *Fiumi, Canali, Strade e Laghi.*—In addizione ai fiumi navigabili dei quali si contano circa 2,500 miglia, vi sono in Inghilterra e Galles circa 2,800 miglia di canali, 24,000 miglia di strade postali, e 100,000 miglia di strade carrozzabili. In quasi tutte le città grandi, paesi e borghi commerciali, esistono comunicazioni per acqua e per terra. Nella Scozia, i canali principali sono, il canale grande che misce i golfi dei Forth e del Clyde ed i canali d'Unione Crinan e Caledonian. L'ultimo, congiungendosi a diversi laghi, si stende interamente attraverso al paese, e forma una comunicazione navigabile col centro dell'isola. Le strade postali ed altre sono stimate a 3,700 miglia di lunghezza. L'estensione dei fiumi navigabili in Irlanda è circa 210 miglia, ed i canali 300

miglia. Non v' hanno rapporti sul numero delle miglia che percorrono le strade d'Irlanda.

L'Inghilterra ha pochissimi laghi, e nessuna di grand' estensione. I laghi inglesi sono situati principalmente in Westmorland e Cumberland:

(b.) *Le Strade Ferrate.*—Lo sviluppo del sistema delle strade ferrate nella Gran Bretagna durante i cinque ultimi anni è stato molto rapido; ed oltre ai mezzi estesi di comunicazioni per le riviére, i canali, e le strade ordinarie, c'è ora 13,289 miglia di strada ferrata che forma una linea di connessione con ogni città e territorio del regno.

Il numero delle miglia aperte al commercio in ciascuna divisione del regno a tutto il 31 dicembre 1865 ascendeva a:—

	Linee Doppie	Linee Singole	Totale
	Miglia	Miglia	Miglia
In Inghilterra e Galles .	6,081	3,170	9,251
Scozia	946	1,254	2,200
Irlanda	476	1,362	1,838
Gran Bretagna .	7,503	5,786	13,289

L'ammontare totale del capitale pagato in azioni e in prestiti, ecc. per le strade ferrate della Gran Bretagna alla fine di dicembre 1865 fu 455,478,000^l.

La cifra dei passeggeri trasportati durante gli anni 1864 e 1865 in ogni divisione del regno ascese a:—

	Anni	In Inghilterra e Galles	In Scozia	Irlanda	Nella Gran Bretagna
Viaggiatori:		No.	No.	No.	No.
1ma classe	{ 1864	23,467,020	2,691,301	1,543,094	27,701,415
	{ 1865	25,053,443	2,840,446	1,769,316	29,663,205
2da classe	{ 1864	59,681,016	1,998,949	3,589,204	65,269,169
	{ 1865	64,520,007	2,349,500	3,913,734	70,783,241
3za classe (passeggeri da treni di Parlamento compresi)*	{ 1864	114,016,625	15,515,205	6,769,751	136,301,581
	{ 1865	127,120,088	16,805,582	7,490,599	151,416,269
Totale	{ 1864	197,164,661	20,205,455	11,902,049	229,272,165
	{ 1865	216,693,538	21,995,528	13,173,649	251,862,715
Viaggiatori aventi biglietti per stagioni	{ 1864	51,914	15,403	9,182	76,499
	{ 1865	63,997	20,744	12,406	97,147
Numero di Carrozze trasportate . .	{ 1864	54,030	8,619	4,053	66,702
	{ 1865	52,286	8,809	3,204	59,299
„ „ Cavalli trasportati	{ 1864	230,368	28,419	24,325	283,112
	{ 1865	210,203	17,478	26,869	254,550
„ „ Cani trasportati	{ 1864	354,019	68,880	36,695	459,594
	{ 1865	312,166	47,709	36,222	396,097

* I passeggeri appartenenti alla classe infima del popolo, sono trasportati con questo treno speciale ad una rata non maggiore d'un penny per miglia. Il convoglio che trasporta questa classe di passeggeri, percorre l'estensione intera della strada ferrata, fermandosi a ciascuna stazione, ogni giorno nell'anno.

La sottoposta tavola farà vedere la media dei noli fattisi pagare nel 1865 dalle principali compagnie ferroviarie, distribuite per provincie.

Divisioni e Strade Ferrate	Prezzo Medio dei noli Comuni			Noli dei treni Espressi		Divisioni e Strade Ferrate	Prezzo Medio dei noli Comuni			Noli dei treni Espressi	
	1ma Classe	2da Classe	3za Classe*	1ma Classe	2da Classe		1ma Classe	2da Classe	3za Classe*	1ma Classe	2da Classe
	Per miglio d.	Per miglio d.	Per miglio d.	Per miglio d.	Per miglio d.		Per miglio d.	Per miglio d.	Per miglio d.	Per miglio d.	Per miglio d.
In Inghilterra e la provincia di Galles:						In Scozia:					
Gran Orientale	2:57	1:97	1:00	2:87	2:00	Caledonian	1:21	1:36	0:66	—	—
„ Nord	2:35	1:61	0:98	—	—	Glasgow e Sud-Occ. .	1:25	1:41	0:93	—	—
„ Occidentale	2:73	1:86	0:96	2:38	1:74	Gran Norde di Scozia.	1:64	—	0:97	—	—
Lanc. e Yorkshire . .	1:38	1:16	0:60	—	—	Norde Britannico . .	1:84	1:52	0:91	—	—
Londra e Blackwall . .	2:35	1:57	0:96	—	—	Scozia e Nord-Occ. .	2:15	1:45	0:99	—	—
„ e Nord-Occ. . . .	1:95	1:44	0:95	2:50	1:96						
„ e Sud-Occ. . . .	2:31	1:70	0:98	2:69	1:95						
„ Brighton e S. . . .	1:92	1:43	0:90	2:59	2:10	In Irlanda:					
„ Coast	—	—	—	—	—	Belfast e provincie del Nord	1:94	1:40	0:90	—	—
„ Chatham e Dover .	2:44	1:66	0:95	3:01	2:03	Dublin, Wicklow e Wexforde	2:05	1:51	0:97	—	—
Manchester, Sheffield e Lincoln	2:43	1:74	0:97	—	—	Gran Sud e Occ. . . .	1:94	1:49	0:91	—	—
Centrale	2:39	1:71	0:97	—	—	Ulster	1:99	1:49	0:95	—	—
Nord-Orientale	2:10	1:50	0:85	—	—	Waterford e Limerick	2:07	1:53	0:93	—	—
„ Londra	1:53	1:03	1:00	—	—						
Sud-Occidentale	1:96	1:39	0:83	2:34	1:70						

* Compresi i viaggiatori per il treno parlamentare.

(c.) *Telegrafo Elettrico*.—Le statistiche dei telegrafi elettrici per uso pubblico, depositate al Board of Trade dalle rispettive compagnie

telegrafiche nell' anno 1865 presentavano le cifre seguenti :—

Società	Lunghezza di Linee Telegrafiche	Lunghezza di Linee in uso	Numero di Stazioni aperte al Pubblico	Numero degli istrumenti	Numero di Ambasciate Pubbliche
	Miglia	Miglia			
Elettro e Internazionale	9,306	45,044	1,022	5,778	non si sa
Inglese ed Irlandese Magnetico*	4,401	18,668	491	manca il dato	1,251,265
Strada ferrata South Eastern†	323½	3,064½	104	159	88,711
Strada ferrata Londra, Brighton e South Coast	240¾	688	57	92	66,523
Territorio di Londra	123	470	83	195	316,272
La Gran Bretagna‡	1,672	9,506	125	358	743,870
Totale	16,066¼	77,440½	1,882	—	—
Submarino§	887(nel 1863)	—	—	—	—

* Il numero dei dispacci mandati sul continente e relative risposte dal suddetto da questa compagnia e quella del Telegrafo Submarino, ed il numero dei dispacci staccati dalle compagnie delle strade ferrate, dei giornali e degli uffici di pubblicità non sono comprese nel servizio pubblico, ma sono stimati a circa 250,000 dispacci per anno.

† La compagnia della strada ferrata South Eastern non ha connessione con alcune delle compagnie Elettro-Telegrafiche.

‡ Eccezzuati i telegrafi privati provveduti da questa compagnia a persone che hanno due luoghi di negozio, e anche del sistema di telegrafi del Fire Brigade.

§ Telegrafo per Calais, 24 miglia; Boulogne, 25 miglia; Dieppe, 78 miglia; Jersey, 30 miglia; Ostende, 70 miglia; Hannover, 80 miglia; Danimarca, 380 miglia.

Oltre il soprascritto, v'hanno due gomene della compagnia telegrafica fra l'Irlanda ed il Nuovo mondo. La lunghezza della gomema imbarcata per la linea nel 1865 fù miglia nautiche 2,300, e nel 1866 per porre una gomema nuova, e rinnovellare quella che fu danneggiata nell' anno antecedente furono impiegate non meno di 2,730 miglia nautiche.

POPOLAZIONE.—Totale — Nazionalità — Dinominazioni Religiose — Occupazioni — Dei Capo-Luoghi — Aumentazione dopo 1855 — Emigrazione — Ciechi — Sordi — Muti — Nascite — Morti — Sposalizii — Poveri — Malfattori Criminali.

(a.) *Popolazione*.—La popolazione totale della Gran Bretagna, dal censo ultimo 1861 risultava essere di 29,070,000 persone, ed in ogni divisione del regno :—

Divisione	Popolazione (eccettuati l'Esercito e l'Armata Navale)			Esercito e Armata Navale, in altri paesi
	Uomini	Donne	Totale	
In Inghilterra	9,224,000	9,730,000	18,954,000	162,273
Provincia di Galles	552,000	560,000	1,112,000	
Scozia	1,450,000	1,612,000	3,062,000	
Irlanda	2,837,000	2,962,000	5,799,000	
Isole su Mari Inglesi	66,000	77,000	143,000	2,227
Gran Bretagna	14,129,000	14,941,000	29,070,000	250,356

La proporzione della popolazione nelle quattro divisioni del regno fu :—In Inghilterra e la provincia di Galles 69·1, in scozia 10·5, in Irlanda 19·9 e nelle Isole ½; delle dieci parti della popolazione del regno, sette appartengono all' Inghilterra e la provincia di Galles, due all' Irlanda, una alla Scozia, $\frac{1}{10}$ alle Isole su mari inglesi.

Comprendendo gl' uomini all' estero appartenenti all' esercito, l' armata navale, ecc. risultavano nell' anno 1861, 14,379,000 uomini contro a 14,941,000 donne. La popolazione stimata della Gran Bretagna (comprendendo l' esercito e l' armata navale in paesi forestieri) alla metà dell' anno 1866 fu 30,329,207.

La quantità della popolazione calcolata per miglio quadrato nel 1861 era :—

In Inghilterra	372·2
Nella provincia di Galles	150·3
In Scozia	99·7
In Irlanda	182·6
Nelle Isole	403·9
Regno Unito	240·0

(b.) *Nazionalità*.—La nazionalità della popolazione nelle diverse divisioni del regno nell' anno suddetto era così distinta :—

Nazionalità	In Inghilterra e Galles	In Scozia	In Irlanda	Nelle Isole su Mari Inglesi
Inglese	17,985,617	54,920		19,525
Gallese	1,134,435	1,112	50,936	290
Scozzesi	169,202	2,785,804	16,925	1,235
Irlandesi	601,634	204,083	5,720,686	5,534
Nati nelle Isole su Mare Inglese	18,423	628		111,354
„ „ Colonie e Indie Inglese	51,572	7,559		1,262
„ „ in istati forestieri	101,832*		10,420	4,184†
„ „ in mare	3,509	8,188†		63
Totale	20,066,224	3,062,294	5,798,967	143,447

* Comprese 84,090
† „ „ 3,969 } persone che furono cittadini di stati forestieri.
‡ „ „ 3,923

(c.) *Denominazioni Religiose.*—Non vi sono rapporti delle persone in ogni denominazione religiosa nella Gran Bretagna. Il numero delle diverse sette in Irlanda nel 1861 fu calcolato come segue:—

	Persone
Appartenenti alla chiesa dominante	693,357
Presbiteriani	523,291
Metodisti	45,399
Indipendenti	4,532
Anabattisti	4,237
Quaccheri	3,695
Altre religioni	14,695

Totale dei Protestanti	1,289,206
Cattolici	4,505,265
Ebrei	393
Non specificati	4,103
Totale	5,798,967

(d.) *Occupazione.*—Comparando le occupazioni del popolo britannico nel 1851, la prima data nella quale furono ottenuti rapporti fedeli sulle occupazioni, colle statistiche del 1861, i cambiamenti seguenti nelle tre grandi divisioni del lavoro, si osservano:—

1°. La quantità della popolazione impiegata nel mestiere d'agricoltura ha scemato dal 12 al 10 per cento.

2°. Quella impiegata nel commercio ha aumentato dal 21 al 27 per cento.

3°. E quella occupata in altre maniere aveva scemato dal 67 al 63 per cento.

Questi fatti si discerneranno con più facilità dal rapporto seguente:—

	Impiegati in Agricoltura	Impiegati in Commercio	Impiegati in altre maniere
In 1851	12	21	67
In 1861	10	27	63

Gran difficoltà fu trovata nel procurare rapporti fedeli sulle occupazioni del popolo, e benché molte di queste difficoltà fossero in parte sormontate rivedendo il censo del 1861, le informazioni ottenute allora furono considerate imperfette sotto molti riguardi. In forza però del buon volere generale le sei gran divisioni delle occupazioni sulle quali i rapporti del censo furono redatti, danno una

approssimazione passabilmente giusta della verità. In Inghilterra e la provincia di Galles sopra una popolazione di 20,066,224, rapporti delle occupazioni di 19,915,334 persone furono ottenuti. In Scozia i rapporti furono completi, ed in Irlanda presentavano la cifra di 5,416,806 persone occupate sopra un totale di 5,798,967.

La tavola seguente dimostrerà il per cento della popolazione nelle sei classi d'occupazioni in ogni divisione del regno nel 1861:—

Classe d'Occupazione	Rapporti per Cento		
	In Inghilterra e Galles	In Scozia	In Irlanda
(1) Di Professione	2·4	1·7	1·8
(2) Domestica	57·4	57·0	56·8
(3) Commerciale	3·1	2·8	2·2
(4) Agricolturale	10·1	12·5	18·3
(5) Industriale	24·3	22·8	12·3
(6) Indefinita e non-produttiva]	2·7	3·2	8·6
	100·0	100·0	100·0

- (1) Compresa le persone occupate nel governo o nella difesa del paese, e nelle professioni di belle arti, di scienza, ecc.
- (2) Compresa le persone occupate nelle funzioni di moglie, madre, e vedove, bambini e relativi non indicati altrimenti, scolari, e persone occupate in dozzina, alloggio e domestici.
- (3) Contemplata la gente occupata in affari commerciali e mercanti di roba comune, messaggeri sulle strade ferrate, strade, canali, riviere e mari, persone impiegate in magazzino, portinai e facchini.
- (4) Calcolate le persone impiegate nell' agricoltura e orticoltura, e nella cura degli animali.
- (5) Considerate le persone occupate in manifatture d' ogni specie, non specificate altrimenti.
- (6) Compresa le persone occupate come lavoratori, persone nobili e aventi ricchezze, non rapportati avere nessun ufficio o occupazione. Persone mantenute dal comunetà, cioè pensionati, indigenti, accattoni, matti, prigionieri, vagabondi o senza alcuna occupazione.

La tavola seguente mostra il numero totale di persone d' ogni sesso occupati in faccende domestiche, agricoltura, ed industria in ciascuna divisione del regno nel 1861. Il numero di coloro occupati nell' agricoltura, e nell' industria, comprende tutte le persone aventi connessione col ramo agricolo, cioè fattori, mercanti, lavoratori, operai, manifattori, ecc. ecc.

Numero di Persone di ambo i sessi impiegate in faccende domestiche, agricoltura ed industria (rami principali) in ciascuna divisione del Regno Unito alla fide del censo del 1861.

Ramificazioni di negozj, Manifatture nelle quali sono impiegati	In Inghilterra e Galles			In Scozia			In Irlanda		
	Uomini	Donne	Totale	Uomini	Donne	Totale	Uomini	Donne	Totale
Servitori	137,447	1,071,201	1,208,648	10,827	138,375	149,202	41,318	304,767	346,085
In Agricoltura, cioè nei campi	1,457,075	376,577	1,833,652	215,716	120,773	336,489	850,121	81,714	931,835
Industrie:									
Libri	46,983	7,310	54,293	7,662	1,418	9,080	4,032	886	4,918
Istrumenti di musica . .	6,365	221	6,586	339	1	340	127	1	128
Stampe e quadri . . .	5,875	435	6,310	1,259	144	1,403	276	11	287
Intagli e figure . . .	4,149	4,600	8,749	404	90	494	77	42	119
Arnesi per diverti- menti	2,427	1,760	4,187	181	89	270	122	42	164
Disegni, medaglie, ecc.	2,762	48	2,810	821	10	831	160	5	165
Oruoli e strumenti di scienza	24,888	735	25,623	1,964	13	1,977	1,012	12	1,024
Istrumenti chirurgici .	798	231	1,029	31	8	39	15	3	18
Armi	13,031	713	13,744	397	5	402	258	1	259
Macchine e arnesi . .	110,772	6,646	117,418	10,948	289	11,237	1,505	83	1,588
Carrozze	19,896	232	20,128	1,549	1	1,550	2,972	28	3,000
Finimenti da cavallo .	18,109	1,305	19,414	1,857	7	1,864	3,177	44	3,221
Navi e bastimenti . .	43,704	75	43,779	9,148	6	9,154	2,220	9	2,229
Case e fabbriche . . .	480,092	25,579	505,671	68,598	4,708	73,306	57,023	7	57,030
Mobili	55,600	8,316	63,916	6,889	533	7,422	3,347	556	3,903
Apparecchi	39,526	97	39,623	3,523	2	3,525	1,814	—	1,814
Preparati chimici . .	18,245	1,764	20,009	4,336	1,600	5,936	700	238	938
Lana e stame	132,942	105,872	238,814	13,861	14,457	28,318	3,384	33,014	36,398
Seta	45,121	72,868	117,989	2,768	2,552	5,320	354	236	590
Cotone e lino	238,643	324,371	563,014	53,704	88,708	142,412	44,773	82,375	127,148
Materiali misti . . .	57,481	25,689	83,170	11,746	8,064	19,810	24,718	55,028	79,746
Vestiaro	399,166	806,581	1,205,747	51,817	81,290	133,107	66,375	150,625	217,000
Canapa, ecc.	17,070	5,813	22,883	5,563	3,950	9,513	1,386	706	2,092
Carni	102,836	38,349	141,185	9,065	5,359	14,424	13,219	7,935	21,154
Cibo vegetale	115,485	20,869	136,354	18,355	2,293	20,648	16,742	3,795	20,537
Bevande e stimolanti .	129,293	23,388	152,681	21,150	5,804	26,954	9,034	2,231	11,265
Grasso, corno, avorio ecc.	11,186	854	12,040	1,386	247	1,633	1,175	108	1,283
Pelli, penne, ecc. . .	28,360	1,396	29,756	2,761	57	2,818	2,155	222	2,377
Cappelli	9,711	4,585	14,296	477	279	756	397	268	665
Gomma e resina . . .	11,777	2,882	14,659	930	733	1,663	292	513	805
Legno	76,076	2,990	79,066	12,014	294	12,308	12,639	672	13,311
Scorza	2,236	116	2,352	655	19	674	488	9	497
Canna, paglia e giunco	16,048	1,254	17,302	861	70	931	1,286	27	1,313
Carta	19,173	11,632	30,805	3,043	3,695	6,738	2,219	1,115	3,334
Miniere	330,352	94	330,446	50,706	133	50,839	3,792	96	3,888
Carbone	43,554	4,684	48,238	4,619	356	4,975	2,488	132	2,620
Pietra e argilla . . .	142,170	2,603	144,773	22,670	124	22,794	7,174	35	7,209
Majolica	32,981	14,163	47,144	3,136	1,244	4,380	530	348	878
Vetro	14,211	1,392	15,603	1,208	34	1,242	242	44	286
Sale	2,404	123	2,527	77	6	83	80	13	93
Acqua	2,147	26	2,173	184	—	184	194	53	247
Oro e argento, ecc. . .	18,600	2,976	21,576	1,085	35	1,120	527	36	563
Rame	5,752	3,981	9,733	401	1	402	281	—	281
Stagno e argento vivo	18,434	4,444	22,878	2,432	48	2,480	2,032	—	2,032
Zinco	743	17	760	9	—	9	4	—	4
Piombo e antimonio .	4,027	970	4,997	532	—	532	63	—	63
Ottone ed altri me- talli misti	41,612	3,965	45,577	3,059	118	3,177	1,867	93	1,960
Ferro ed acciaio . . .	299,697	16,875	316,572	44,869	131	45,000	26,576	152	26,728

(e.) *Popolazione delle Città Principali.*—

La tavola seguente farà vedere la popolazione enumerata delle principali città e borghi, in ogni divisione del regno negli anni 1851 e 1861, ed anche la stimata popolazione per il 1866 per quanto può essere accertato.

Città, Borghi, &c.	Popolazione enumerata		Popolazione stimata nel mezzo del 1866
	Nel 1851	Nel 1861	
In Inghilterra :			
Londra (capitale) .	2,362,236	2,803,989	3,037,991
Liverpool (borgo) .	375,955	443,938	484,337
Manchester (città) .	309,382	338,722	358,855
Salford (borgo) .	85,108	102,449	112,904
Birmingham (borgo)	232,841	296,076	335,798
Leeds (borgo) .	172,270	207,165	228,187
Sheffield (borgo) .	135,310	185,172	218,257
Bristol (città) .	137,328	154,093	163,680
Newcastle-upon-Tyne (borgo) }	84,784	109,108	122,277
Hull (borgo) .	84,690	97,661	105,233
In Scozia :			
Edimburgo (città) .	161,648	170,444	175,128
Glasgow (città) .	329,097	395,503	432,265
Dundee	80,027	91,662	—
Aberdeen	71,973	73,900	—
Paisley	48,071	47,427	—
Greenock	37,436	43,894	—
Leith	32,219	36,029	—
Perth	24,670	26,094	—
In Irlanda :			
Dubino (città) .	258,369	314,409	318,437
Belfast	100,301	123,479	—
Cork	85,732	93,389	—
Limerick	53,446	50,068	—
Waterford	25,297	30,570	—
Londonderry	20,187	20,366	—

Nota.—Nell' anno 1861 vi erano settantadue città in Inghilterra, compreso il Principato di Galles, le quali avevano una popolazione ciascheduna di più di 20,000 abitanti.

L' aumento della popolazione in alcune delle principali città e borghi in Inghilterra negli anni 1855 e 1865, è mostrata nella prossima tavola.

	Stima Totale della Popolazione	
	Nel 1855	Nel 1865
Londra (capitale)	2,548,382	2,993,513
Liverpool	403,547	476,368
Manchester	317,966	354,930
Salford	92,106	110,833
Birmingham	257,941	327,842
Leeds	186,356	224,025
Sheffield	154,662	211,529
Bristol	144,236	161,809
Newcastle-upon-Tyne	96,307	119,651

(f.) *Aumento della Totale Popolazione dopo il 1855.*—L' aumento della popolazione nella

Gran Bretagna fra gli anni 1855 e 1866 (meno l' esercito, l' armata navale, ecc. fuori del regno) può essere valutato a 12 per cento, la stimata popolazione essendo aumentata da 21,807,000 nel 1855 a 24,363,000 nel 1866. In Irlanda durante lo stesso tempo la popolazione diminuì

circa 7 per cento principalmente a causa della grand' emigrazione d' Irlandesi.

(g.) *Emigrazione.*—Durante i dieci anni che ebber fine col 1865, 1,607,745 persone emigrarono dalla Gran Bretagna. Di questo numero 139,802 partirono per le colonie dell' America Settentrionale, 1,005,844 agli Stati Uniti, 397,302 alle colonie d' Australia, e 64,797 in altre parti. Non vi sono rapporti del numero degli emigranti che arrivano dai paesi esteri nella Gran Bretagna.

(h.) *Popolazione di ciechi.*—Il numero totale delle persone cieche enumerato alla compilazione dell' ultimo censo nella Gran Bretagna (1861) era 29,248, del qual numero vi erano—

In Inghilterra e Galles .	19,352	ossia 1 in 1,037
Scozia	2,820	„ 1 „ 1,086
Irlanda	6,879	„ 1 „ 843
Isole in mari inglesi .	197	„ 1 „ 728
Regno Unito	29,248	ossia 1 in 994

della popolazione

Vi sono diverse istituzioni per la cura dei ciechi in Londra e in molte altre città di tutto il regno.

(i.) *Sordo-Muti.*—La quantità totale di sordo-muti alla stessa data era 20,311, distribuita come segue:—

In Inghilterra e Galles .	12,236	ossia 1 in 1,640
Scozia	2,335	„ 1 „ 1,311
Irlanda	5,653	„ 1 „ 1,026
Regno Unito, incluseci le isole }	20,311	ossia 1 in 1,432

della popolazione

Le provincie settentrionali della Scozia abbondano di sordi e muti più che alcun' altra parte della Gran Bretagna.

(j.) *Nascite, Morti, Sposalizii.*

Anni	Popolazione Stimata	Nascite	Morti	Sposalizii
In Inghilterra e principato di Galles.				
1863	20,554,137	727,417	473,837	173,510
1864	20,772,308	740,275	495,531	180,387
1865	20,990,946	747,870	491,360	182,470
Scozia				
1863	3,101,345	109,325	71,421	22,087
1864	3,118,701	112,445	74,303	22,675
1865	3,136,057	113,126	70,821	23,577
Irlanda				
1864	*5,798,967	136,640	94,000	27,370
1865		145,200	30,700	30,680

* Popolazione nel 1861.

(k.) *Indigenti.* Il numero totale degli indigenti che ricevono aiuto dentro, e fuori dell' asilo dei poveri, in ogni divisione del regno era, al primo gennaio 1866:—

In Inghilterra e Galles .	920,344
Scozia	121,394
Irlanda	65,057

(l.) *Malfattori Criminali nel 1865.*

	In Inghilterra e Galles	In Scozia	In Irlanda
Numero di quelli imprigionati per processo . . .	19,614	2,567	4,657
„ dichiarati colpevoli . . .	14,740	2,360	2,663
„ liberati, meno quelli ritenuti perchè dichiarati pazzi . . .	4,842	207	1,966

PRODUZIONE.—Agricoltura—Raccolte—Lana—Lino—Bestiame—Grandezza dei Poderi—Foreste—Pescherie—Carbone—Metalli—Petrolio—Argilla—Materiale di Terra—Sale—Fabbriche—Tessute—Altre Fabbriche.

(a.) *Agricoltura.* — Riguardando la produ-

zione del terreno nel nostro paese non vi sono, sfortunatamente, alcuni rapporti ufficiali della quantità di grano, di carne, e lana, o del burro, cacio, ed altri prodotti della cascine, consumati annualmente. Sotto questo rispetto l'Inghilterra non è così avanzata come le altre nazioni forestieri, le quali hanno con molta cura e studio fondato un sistema perfetto statistico d' agricoltura. Insino all' anno 1866 nessun rapporto esatto fu ottenuto nella Gran Bretagna, nè sul numero dei jugeri in produzione, nè della quantità di bestiame.

La tavola seguente farà vedere l' estensione di terreno ridotto a coltivazione in ogni divisione del regno, come da rapporto:—

Divisione	Area Totale in jugeri	Totale Quantità di jugeri in raccolta d'ogni specie, Scarsa, Maggese, ed Erba	Quantità di jugeri in raccolta di Grano	Quantità di jugeri in raccolta d' Erba
Inghilterra	32,590,397	22,261,833	7,400,170	2,750,008
Galles	4,734,486	2,284,674	521,074	139,265
Scozia	19,639,377	4,158,360	1,366,540	663,257
Gran Bretagna	56,964,260	28,704,867	9,287,784	3,552,530
Irlanda	20,322,641	*15,549,796	2,173,433	1,482,091
Isola di Man	180,000	82,902	27,266	12,208
Isole della Manica { Jersey	28,717	20,357	3,142	5,253
Guernsey	17,967	11,999	2,041	2,938
Regno Unito	77,513,585	—	11,493,666	5,055,020

* Queste cifre comprendono le pasture delle montagne, le quali sono escluse nei rapporti sulle altre divisioni del regno.

(b.) *Raccolte.* — Il numero totale dei jugeri di erba in coltivazione di grano tera come segue:—

	Jugeri
In Frumento	3,697,635
„ Orzo	2,398,485
„ Avena	4,469,297
„ Segala	67,879
„ Fave	537,210
„ Piselli	323,160
	11,493,666

Stimando la media produzione di frumento essere ventisette staja per jugero nella Gran Bretagna, e venticinque nell' Irlanda, la produzione annuale di frumento può essere calcolata a circa 12,364,000 quarti. La produzione nostrale di frumento è, però, assai minore della quantità richiesta dai consumatori, e grandissime quantità di frumento ed altre qualità di grano sono importate, come può rilevarsi da una relazione sul commercio generale degli imposti del regno. Il Signor Caird, di riputazione ben conosciuta in affari d' agricoltura, stima la media produzione delle altre specie di raccolte di grano essere: orzo, trentotto staja per jugero; avena e segala quarantatré staja per jugero, e fave e piselli trenta staja.

Negli ultimi anni una assai più grand' attenzione è stata data all' allevamento del bestiame nella Gran Bretagna, e in conseguenza una grand' area del paese è stata destinata alla coltura di raccolta di radici. La totale quantità di jugeri in coltivazione d' erbacei nella Gran Bretagna nel 1866 era 5,055,020, dei quali 1,555,609 jugeri coltivati a patate; 2,468,564 seminati a rape e 'swedes'; 279,987 producevano 'mangold,' una specie di barbabietola; 22,061 carote; 216,610 cavolo, 'kohl-rabi,' e radici, e 512,189 vecchie, cedrangola ed altre raccolte erbacee meno trifoglio o erba.

(c.) *Lana e Lino.* — Dei materiali greggi adoperati nella fabbrica di tessuti, due soltanto sono prodotti nel Regno Unito, vale a dire, lana e lino. Il Signor Behrens basa la di lui stima sulla quantità di pecore esistenti nel regno e fa ammontare la produzione nostrale di lana greggia a circa 152,000,000 libbre. Il lino è coltivato principalmente in Irlanda, ma allo stesso tempo, minori quantità sono prodotte in Inghilterra e Scozia. Il numero totale dei jugeri coltivati a lino in Irlanda nel 1866 era 263,659 jugeri, e la produzione di lino era 1,051,000 quintali.

(d.) *Bestiame.* — Il numero totale di ogni specie di bestiame nelle differenti divisioni del Regno Unito nel 1866 era:—

Divisione	Bestiame			Pecore	Porci
	Vacche	Altro Bestiame	Totale		
	No.	No.	No.	No.	No.
Inghilterra	1,290,529	2,016,505	3,307,034	15,124,541	2,066,299
Galles	222,546	318,855	541,401	1,668,663	191,604
Scozia	370,447	566,954	937,401	5,255,077	219,716
Irlanda	1,481,446	2,261,486	3,742,932	4,270,027	1,493,000
Isola di Man	7,755	10,932	18,687	55,954	10,956
Isole della Manica {	Jersey	5,815	6,222	12,037	517
	Guernsey	3,030	3,946	6,976	1,214
Totale, Regno Unito	3,381,568	5,184,900	8,566,468	26,375,993	3,993,506

A causa delle perdite cagionate dalla peste il sopracitato rapporto del bestiame è minore della quantità ordinaria tenuta nel regno. Sommando la cifra del bestiame ucciso dalla epidemia col numero di quello esistente all'epoca del soprascritto rapporto, si avrebbe un totale di 8,716,279. Il numero delle pecore secondo le relazioni avute dalle provincie del nord dell' Inghilterra e della Scozia è probabilmente minore al numero di agnelli esistenti nell' anno 1866, in conseguenza del tempo nel quale i rapporti furono redatti. I porci tenuti dai contadini, ed anche nelle città, non sono inclusi nei rapporti che sopra e riguardanti le differenti divisioni della Gran Bretagna.

Nella collezione dei sopradetti rapporti si osserva che niuna ricerca fu fatta per assicurarsi sul numero dei cavalli. Il numero dei cavalli e muli nella Gran Bretagna nel 1864 stando al rapporto sulle tasse era 1,071,095; in Irlanda nel 1866 era 535,000, formanti un totale di un milione e mezzo per tutto il regno.

(e.) *Grandezza dei Poderi.*—1. *Gran Bretagna.*—L'ultimo rapporto della grandezza dei poderi nella Gran Bretagna fu compilato nell'anno 1851, ed in allora il numero totale dei poderi su tutte le divisioni del regno, era come segue:—

	Numero dei Poderi.
In Inghilterra e Galles	225,318
Scozia	56,650
Isole in mari inglesi	3,968
Totale	285,936

La media grandezza di ogni podere era 102 jugeri nella Gran Bretagna; 111 jugeri in Inghilterra e Galles; 74 in Scozia; e meno di cento nelle isole. Le proporzioni per scala dei poderi nella Gran Bretagna erano:

Meno di 100 jugeri	672 poderi
100, e meno di 200 jugeri . .	187 „
200, e meno di 1,000 jugeri .	137 „
1,000, e più	4 „
	1,000

La quantità media del terreno nelle mani di 2,033 affittaiuoli, i quali coltivavano poderi di 700 e più jugeri, in Inghilterra e Galles allo stesso tempo, oltrepassava la quantità coltivata

da 97,800 piccoli affittaiuoli, da 10,060 jugeri, come si vede nella seguente tavola:—

	Numero dei Poderi.	Jugeri di terreno.
Affittaiuoli coltivando poderi di 700 e più jugeri	2,038	2,152,050
Piccoli	97,800	2,141,990

2. *Irlanda.*—La grandezza dei poderi coltivati in Irlanda nell'anno 1864 era—

Grandezza dei Poderi.	
Meno di 5 jugeri	130,690
5 a 15 „	176,368
15 a 30 „	136,578
30 a 50 „	71,961
50 a 100 „	54,247

Totale meno di 100 jugeri	569,844
100 a 200 jugeri	22,065
200 a 500 „	8,303
Più di 500 „	1,559
Totale	601,771

(f.) *Foreste.*—Non vi sono rapporti sulla quantità di legname prodotto nel Regno Unito, ma il valore annuale è calcolato a circa due milioni di lire sterline.

(g.) *Pesche.*—Le pesche inglesi sono molto estese, e un resoconto generale di esse sarà trovato nelle note statistiche alla classe 70.

(h.) *Carbon fossile e Metalli.*—Le risorse minerali sono assai estese, e formano una delle ramificazioni più importanti della ricchezza nazionale. Dopo l'anno 1854, più precisi rapporti delle produzioni minerali del paese sono stati ottenuti sotto la direzione del signor Roberto Hunt, archivista delle miniere attaccato al Real museo di Geologia. Il valore totale del carbone e dei metalli prodotti nel Regno Unito nell'anno 1865 montava a 41,745,429 lire sterline. La sottoscritta tavola rappresenta le quantità ed il valore delle produzioni minerali nel 1865.

Il valore totale, dunque, di carbone e di metalli era—

Carbone	£ 24,537,646
Metalli	15,773,287
Minerali terruginosi meno argilla e pietre da costrurre edifici	1,434,496
Totale	41,745,429

		Quantità		Valore Stimato sul posto di Produzione	
		Minerali cavati	Metalli prodotti	Minerali cavati	Metalli prodotti
				£	£
Carbone	Tonnellate	98,150,587	—	24,537,646	—
Ferro	”	9,910,045	4,819,254	3,324,804	11,773,220
Piombo	”	90,451	67,181	1,153,134	1,433,161
Rame	”	198,298	11,888	927,938	1,134,664
Stagno	”	15,686	10,039	867,435	971,273
Zinco	”	17,842	4,040	52,478	104,810
Pirite	”	114,195	—	71,174	—
Oro	”	4,280	once 1,664	—	5,824
Argento	Once	—	724,856	—	199,335
Minerali terruginosi (rapportati)	”	—	—	774,496	—
” (stimati)	”	—	—	650,000	—
Altri Minerali e Metalli Metalliferi (stimati)	”	—	—	—	150,000
Totale		—	—	32,359,105	15,773,287

Un resoconto più dettagliato della produzione delle differenti specie di minerali e metalli sarà trovata nelle note statistiche alla classe 40.

(i.) *Petrolio*.—I rapporti della quantità prodotta di petrolio non sono stati ancora ottenuti; ma l'estrazione di quest'olio minerale dagli differenti schisti bituminosi in diverse parti del regno, forma ora un commercio di assai grande importanza.

(j.) *Argilla e Creta*.—La produzione totale di porcellana e di argilla da resistere al fuoco nell'anno 1865 fu considerata essere 1,125,924 tonnellate, del valore di 373,916£.

(k.) *Sale*.—Il sale è prodotto in Cheshire, in Worcestershire, ed in Irlanda. Le fabbriche di sale di Cheshire sono capaci di produrre un

milione di tonnellate di sale per anno; la produzione delle fabbriche di sale in Worcestershire è circa 200,000 tonnellate per anno. La produzione di sale in Irlanda a paragona delle sopradetti è sì piccola scala.

(l.) *Fabbriche di Tessuti*.—La manifattura dei tessuti è esercitata ampiamente nel Regno Unito, ed una piccola idea della sua grandezza si ha nel fatto che in aggiunta ai tessuti fabbricati per la consumazione nostrale nell'anno 1865, furono esportate stoffe del complessivo valore di circa novantasette milioni di lire sterline.

Il numero delle fabbriche nella Gran Bretagna, secondo l'ultimo rapporto del 1861, ascendeva—

Fattorie diverse	No. delle Fattorie	No. dei Fusi	No. di Telaj a Macchina	No. degli Operaj		Forza motiva a 'Cavalli'	
				Uomini	Donne	Vapore	Acqua
Cotone	2,887	30,387,467	399,992	182,556	269,013	281,663	12,467
Lino	399	1,216,674	14,792	24,616	62,813	31,727	4,354
Seta	771	1,338,544	10,709	15,530	36,899	6,186	864
Lana	1,679	2,182,609	21,770	49,754	37,229	26,879	9,598
„ filata	532	1,289,172	43,048	31,501	54,562	26,234	1,970
Canapa	5	2,580	1	105	502	127	—
Jute	36	32,982	554	2,049	3,918	2,048	60
Calzetteria	69	—	—	2,162	2,325	447	46
Totale	5,378	36,450,028	490,866	308,273	467,261	375,311	29,359

Un resoconto della produzione delle varie fabbriche di tessute nazionali sarà trovato nelle relazioni statistiche alle classi 27 a 31.

(m.) *Altre Fabbriche*.—Una descrizione delle diverse fabbriche e manifatture del regno è data nelle osservazioni statistiche alle rispettive classi sotto le quali gli articoli si trovano esposti.

COMMERCIO.—Generale—Camere di Commercio—Commercio Estero—Importati—Dazi d'Importo—Esportati—Dazi d'Esporto—Mercanzie—Oro ed Argento—Trasporti da nave ad altra—Articoli Importati—Ritenuti pel Consumo e Esportati—Commercio di Porto.

(a.) *Commercio*.—Il commercio di spiriti, e la raffinazione di zucchero e 'malt,' orzo mace-

rato ed asciugato per far la birra, sono soggetti ad una certa rivista dalla parte del governo, a causa dell'imposta delle tasse, e delle 'drawbacks,' la quale è la restituzione d'una parte del diritto d'introduzione, quando si riestrae la stessa merce, ma, ad eccezione dei soprascritti, il commercio in tutte le sue ramificazioni è perfettamente libero, e chiunque può esercitare quel commercio che più le piace ed in ogni posto purchè non trasgredisce alle leggi dello stato.

Le tre maggiori classi in rapporto con qualunque commercio sono, i produttori e fabbricanti, i mercanti ed agenti, ed i bottegai ossia venditori all'ingrosso ed al minuto.

Generalmente le operazioni commerciali più rilevanti sono nelle mani dei mercanti, i quali vendono le merci dei produttori al rischio degli stessi; o, altrimenti, comprano le merci

dai produttori, e le vendono per conto suo. Nel primo caso il mercante riceve una commissione sulla vendita, e nel secondo, uno sconto considerabile sul prezzo delle merci.

(b.) *Camere di Commercio.*—Le Camere di Commercio esistono nella più gran part e delle città principali e nei posti centrali di fabbriche nella Gran Bretagna. Esse sono composte dei fabbricante e mercanti principali della località ove esse sono stabilite, e non soltanto sorvegliano gl' interessi dei negozi e delle fabbriche colle quali sono in rapporto intrinseco, ma ancora prendono un grand impegno a tutto quanto riguarda il commercio del paese. Una conferenza annuale delle camere associate di commercio si tiene a Londra nella primavera di ogni anno.

(c.) *Commercio Estero.*—Il commercio estero del Regno Unito, che è in rapporto con ogni parte del mondo, ha fatto gran progresso durante i passati dieci anni, il valore degli imposti essendo montati da cento settantadue milioni di lire sterline, a duecento settantuno milioni: gli esporti totali durante lo stesso tempo, avendo avanzato da, cento trentanove milioni, a duecento diciotto milioni. Non entra nello scopo di queste osservazioni il dettagliare le varie specialità di commercio, ma non tornerà inutile lo alludere generalmente ai prodotti numerici delle diverse transazioni commerciali effettuate fra il Regno Unito e gli stati più importanti del mondo.

(d.) *Importazioni.*—Riguardando le importazioni, i paesi seguenti forniscono le provvisioni principali nel 1861 e 1865:—

Paesi	Nel 1861	Nel 1865
	£	£
Russia	12,822,000	17,383,000
Prussia	6,440,000	6,126,000
Città anseatiche	6,058,000	8,837,000
Olanda	7,692,000	12,419,300
Belgia	3,817,000	7,354,000
Francia	17,826,000	31,625,000
Spagna	4,458,000	4,769,000
Italia	2,478,000	2,486,000
Turchia	3,632,000	5,405,000
Egitto	8,398,000	21,773,000
China	8,608,000	10,499,000
Stati Uniti	49,389,000	21,624,000
Perù	3,169,000	4,002,000
Chili	2,416,000	3,798,000
Brasile	2,631,000	6,797,000
Stati appartenenti all' } Inghilterra . . . }	52,676,000	72,840,000

La diminuzione visibile sulla cifra delle importazioni dagli Stati Uniti non ha uopo di commenti. L'aumento negli importi dalla Turchia, Egitto, China, Brasile, e gli stati appartenenti all' Inghilterra, è dovuta, in gran parte, all' importazione aumentata del cotone greggio durante la mancanza della provvista americana.

L'aumento vistoso negli importi dalla Francia è dovuta allo sviluppo commerciale fra i due paesi dopo la conclusione del trattato commerciale del 1860.

(e.) *Dazj d' importazione.*—La tavola soggiunta indica i dazj d' importazione in forza ora nel Regno Unito sopra produzioni estere di ogni descrizione:—

Lista di articoli soggetti a dazio d' importazione nel Regno Unito.

Articoli	Per	Dazio £ s. d.
Birra e cervogia di ogni qualità	barile	1 0 0
Carte da giuoco	12 mazzi	0 3 9
Cicoria e suoi sostituti se—		
Naturale o seccata al forno	cantaro	1 6 6
Tostata o polverizzata	libra	0 0 4
Cloroforma	„	0 3 0
Cacao	„	0 0 1
Pellicole o scorza	cantaro	0 2 0
In pasta o cioccolato	libra	0 0 2
Caffè crudo	„	0 0 3
seccato in forno, tostato, } polverizzato	„	0 0 4
Collodione	gallon	1 4 0
[Il gallon vale circa 4 litri un quarto.]		
Confetti, canditi, ecc.	libra	0 0 1
Fromento e grano d' ogni qualità	cantaro (4 sacchi)	0 0 3
Farina, e fiore di ogni qualità, tapioca, sago, arrowroot, semolina, ecc. ecc., e polvere e amido	„	0 0 4½
Frutte secche; passolina, fichi, fichi in pasta, prune susine, uva secca	„	0 7 0
Dadi	pajo	1 1 0
Essenza di spruce	10% ad val.	
Etere	gallon	1 5 0
Orzo preparato per birra	4 sacchi	1 5 0
Latte condensato e conservato, tassato per lo zucchero che contiene	cantaro	0 5 0
Oreria	uncia troy	0 17 0
Argenteria dorata, o non dorata	„	0 1 6

Spiriti e articoli contenenti spirito:

Non dolcificati:

Acquavite di Francia e ginepro	gallon	0 10 5
Rum { da paesi stranieri } { produttori } { da paesi stranieri } { nonproduttori }	„	0 10 2
Rum { da paesi stranieri } { produttori }	„	0 10 5
Ratafià di, e da colonie francesi	„	0 10 2
Rum e altri spiriti di colonie inglesi	„	0 10 2
Senza descrizione	„	0 10 5

Articoli	Per	Dazio £ s. d.
Dolcificati:		
Dolcificati o misti, compresi i cordiali ed i liquori	gallon . 01 0 2	
Spiriti profumati per solo uso di profumeria	„ 0 14 0	
Acqua di colonia in bottiglie da 30 per un gallon o 4½ litri	bottiglia 0 0 6	
Detta in altri recipient come altri spiriti profumati.		

Zucchero:		
Candito e raffinato . . .	cantaro 0 12 0	
Greggio, 1a classe . . .	„ 0 11 3	
„ 2da classe . . .	„ 0 10 6	
„ 3a classe . . .	„ 0 9 7	
„ 4a classe . . .	„ 0 8 0	
Succo di canna . . .	„ 0 8 0	
Melasso . . .	„ 0 3 6	
Tè . . .	libra 0 0 6	

Tabacco in foglia con stelo o senza . . .		
contenente 10% di umidità o più	„ 0 3 0	e 5%
contenente meno di 10% di umidità	„ 0 3 6	

Manifatturato:		
Sigari . . .	„ 0 5 0	
Cavendis o negrohead	„ 0 4 6	
Tabacco in polvere con più di 13% di umidità	„ 0 3 9	
Tabacco in polvere contenente meno di 13% di umidità	0 4 6	
Altri tabacchi manifatturati . . .	„ 0 4 0	
Cavendis o negrohead manifatturato nei magazzini di porto franco del Regno Unito . . .	„ 0 4 0	
Vernice contenente alcool o spirito . . .	gallon 0 12 0	
Aceto . . .	„ 0 0 3	
Frutta in aceto . . .	„ 0 0 1	
Vino e sedimento di vino: Contenente meno di 26 gradi centimetri di spirito	„ 0 1 0	
Contenente 26 gradi, ma meno di 42 . . .	„ 0 2 6	
E un dazio addizionale di 3d. per gallon per ogni grado di forza eccedente i 41 gradi.		

(f.) *Esportazione.*—I principali paesi nei quali furono fatte esportazioni negli anni 1861 e 1866 furono:—

Paesi	Nel 1861	Nel 1865
	£	£
Russia	5,765,000	6,180,000
Prussia	4,057,000	4,010,000
Città anseatiche . . .	13,046,000	22,984,000
Olanda	10,989,000	14,960,000
Belgio	4,914,000	6,896,000
Francia	17,427,000	25,355,000
Spagna	3,386,000	3,015,000
Turchia	3,104,000	5,847,000
Egitto	2,398,000	6,168,000
China	3,161,000	3,688,000
Stati Uniti	11,025,000	25,170,000
„ „ nel 1860	22,907,000	
Brasile	4,690,000	5,771,000
Colonie inglesi	45,139,000	51,546,000

(g.) *Dazi di esportazione.*—Articoli di ogni e qualunque genere sono esenti da dazio di esportazione sortendo dal Regno Unito.

(h.) *Commercio generale.*—Le tavole seguenti presentano il progresso generale del commercio del paese.

1. *Merci.*—Il valore totale delle importazioni pel consumo, e dei prodotti domestici nei dieci anni scorsi fu come è mostrato qui sotto.

Anni	Importazioni			Esportazione di prodotti inglesi e irlandesi
	Totale	Esportati di nuovo	Ritenuto pel consumo	
	£	£	£	£
1856	172,544,000	23,393,000	149,151,000	115,827,000
1857	187,844,000	24,108,000	163,736,000	122,066,000
1858	164,584,000	23,174,000	141,410,000	116,608,000
1859	179,182,000	25,281,000	153,901,000	130,411,000
1860	210,531,000	28,630,000	181,901,000	135,891,000
1861	217,485,000	34,529,000	182,956,000	125,103,000
1862	225,717,000	42,176,000	183,541,000	123,992,000
1863	248,919,000	50,300,000	198,619,000	146,602,000
1864	274,952,000	52,139,000	222,813,000	160,449,000
1865	271,072,000	52,996,000	218,076,000	165,836,000

La diminuzione nel commercio generale nel 1858 era dovuta al panico commerciale del 1857 e nelle esportazioni nel 1861-2, alla guerra americana e alla carestia del cotone.

2. *Metalli preziosi.*—Il valore totale dell'oro e dell'argento in verghe importato nel, ed esportato dal Regno Unito dal 1858 (essendo questo il primo anno in cui l'importazione fu registrata) era—

	Importazione	Esportazione
1858	29,493,000	19,623,000
1859	37,070,000	35,688,000
1860	22,978,000	25,534,000
1861	18,747,000	20,811,000
1862	31,656,000	29,326,000
1863	30,030,000	26,544,000
1864	27,728,000	23,132,000
1865	21,462,000	15,092,000

3. *Strabordo.*—Questo ramo di commercio che non è compreso nelle suaccennate tavole ha fatti grandi progressi durante gli ultimi dieci anni. Il valore totale delle merci straniere strabordinate nei diversi porti del Regno Unito era di 4,579,000£. nel 1856 e di 6,469,000£. nel 1865.

L'ammontare del commercio generale è speciale del paese può facilmente fissarsi mediante le tavole suindicate.

(i.) *Articoli Importati.*—Le principali importazioni consistono di articoli di nutrimento ecc., e di materie crude da impiegarsi nelle manifatture. I soli articoli manifatturati che si importano in considerabile quantità sono manifatture di sete, pelli, e lane. Non abbiamo dati certi sul valore dei singoli articoli presi pel consumo del paese, ma si può ottenerne una cognizione approssimata, deducendo il valor della riesportazione degli articoli esteri dalla importazione totale. La tavola seguente denota il valore delle importazioni, delle riesportazioni, e dei principali articoli ritenuti pel consumo interno nell'anno 1865:—

Articoli principali	Importazione totale	Riesportazione	Ritenuti per consumo
1. Articoli di Nutrimento e Bevande.			
Animali vivi:	£	£	£
Buoi, tori, ecc.	4,401,482	70	4,401,412
Pecore e agnelli.	1,787,866	272	1,787,594
Lardo e prosciutti.	2,133,705	82,756	2,120,949
Buc	421,461	16,872	404,589
Burro	5,945,884	75,393	5,870,491
Formaggio	2,463,299	30,992	2,432,307
Cacao	234,655	101,315	133,340
Caffè	4,600,887	3,249,534	1,351,353
Fromento e fiore di farina	20,724,115	32,576	20,691,539
Ova	928,247	—	928,247
Pesce	514,712	51,703	463,009
Frutta	2,848,830	232,228	2,616,602
Lupoli	459,157	18,236	440,921
Strutto	468,398	7,382	461,016
Olio, olive	1,684,852	67,855	1,616,997
Porco	576,988	13,615	563,373
Pomi di terra . . .	161,907	14	161,893
Poli e cacciagione .	148,642	120	148,522
Riso	1,347,494	959,952	387,542
Sagù	121,285	7,407	113,878
Spezie	634,278	458,118	176,160
Spiriti	1,700,487	481,735	1,218,752
Zucchero e melazzo .	13,025,903	662,373	12,363,530
Tè	10,044,462	2,719,454	7,325,008
Tabacco e sigari . .	3,329,309	732,437	2,596,872
Vino	3,914,196	620,034	3,294,162
Lievito secco	232,228	8	232,220
2. Materie crude per Manifatture.			
Ceneri perlati e potassa	226,378	6,469	219,909
Scorza d' alberi per conciare e tingere	167,133	2,231	164,902
Ossa	429,023	46	428,977
Zolfo	359,016	9,739	349,277
Setole di porco e altro animale . .	328,317	22,643	305,674
Gomma elastica cruda	530,538	193,638	336,900
Coccinilia	455,668	317,693	137,975
Rame (minerale di) .	2,699,064	17,479	2,681,585
Rame, preparato, ecc.	2,049,515	852,489	1,197,026
Sughero in natura . .	198,516	20,100	178,416
Cottone	66,032,193	18,834,258	47,197,935
Lino	5,369,719	127,399	5,242,320
Guano	2,675,995	105,292	2,570,703
Gomme	729,377	436,908	292,469
Gutta porca, non lavorata	160,565	9,137	151,428
Crini di capre	837,322	—	837,322
„ di cavallo	371,366	23,947	347,419
Canape cruda	1,744,482	252,320	1,492,162

Articoli principali	Importazione totale	Riesportazione	Ritenuti per consumo
2. Materie crude per Manifatture.—cont.	£	£	£
Cuoia crude o conciate	3,073,447	767,770	2,305,677
Indaco	2,003,900	2,005,006	—
Ferro in barre . . .	584,082	109,369	474,713
Ferro o acciaio, non lavorato	100,696	11,084	89,612
Giuta cruda	1,774,992	351,801	1,423,191
Piombo in pani o foglie	670,694	7,744	662,950
Robia	741,307	5,344	735,963
Manganese (minerale di)	165,894	71	165,823
Nitro, cubico	663,807	27,539	636,268
Olii (eccettuato di olive) . .	4,158,779	903,777	3,255,002
Panelle	859,782	34	859,748
Poce e catrame . . .	165,063	14,645	140,418
Pirite	510,295	542	509,753
Stracci, ecc., per far carta	655,581	24,314	631,267
Resina o raggia . . .	461,952	16,465	445,487
Salnitro	384,574	29,167	355,407
Semi di trifoglio . .	722,516	67,554	654,962
„ lino	3,983,243	407,968	3,575,275
„ rape	629,745	259,451	370,294
„ cotone	836,744	13,423	823,321
Sommacco	190,407	61,364	129,043
Seta cruda e usata . .	10,958,467	4,158,814	6,799,653
Argento, minerale di .	382,391	18,321	364,070
Pelli e pelliccie . . .	1,316,471	550,127	766,344
Spletro o zingo . . .	702,060	84,050	618,010
Sego	3,125,282	94,174	3,031,108
Denti di elefante . .	322,286	207,014	115,272
Terra giapónica . . .	375,345	118,550	256,795
Stagno non lavorato .	529,803	186,442	333,361
Vallonea	320,460	1,057	319,403
Legno e legnami: Non segato o diviso	5,570,304	94,977	5,475,327
In tavole o liste, segato o diviso	6,559,931	86,908	6,473,023
Doghe	649,610	12,983	626,627
Altri generi	517,468	—	517,468
Legni di tinta	238,309	24,845	213,464
Legni duri	661,943	48,605	613,338
Lane di pecore, agnelli, ecc.	14,930,430	5,889,082	9,041,348
Lane in matasse e torte	998,784	3,163	995,621
3. Articoli Manifatturati, ecc.			
Margheritine e conterie	178,310	109,285	69,025
Libri	119,486	5,110	114,376
Candele di stearina .	148,247	88,290	59,927
Oggetti di maiolica e porcellana	166,098	4,202	161,896
Orologi per mobilia o da tasca	473,753	14,110	459,643
Manifatture di cotone	759,358	198,746	560,612
Fiori artificiali . . .	299,427	643	298,793
Manifatture in vetro	620,991	12,892	608,099
Manifatture in capelli	249,696	117,017	132,679
CapPELLI di paglia per uomo e per donna	556,065	7,014	549,051
Merletti	167,706	17,089	150,617
Pelli manifatturate	1,219,194	26,657	1,192,537
Biancherie	153,104	43,523	109,581
Istromenti musicali	243,813	12,551	231,262

Articoli principali	Importazione totale	Riesportazione	Ritenuti per consumo
	£	£	£
<i>Articoli Manifatturati, ecc.—cont.</i>			
Carta d'ogni genere (eccezzua- ta quella per tappezzeria)	494,222	11,298	482,924
Carta da tappezzare	23,873	773	23,100
Trecce di paglia d'ogni genere	133,111	175	132,936
Manifatture di seta	8,496,825	166,936	8,329,889
Balocchi	163,024	9,524	153,500
Manifatture di lane	1,891,104	113,025	1,778,079

(j.) *Articoli esportati.*—Il commercio di esportazioni dal regno si compone degli articoli di provenienza estera già indicati nella tavola precedente e d' altri di produzione indigena. Questi consistono principalmente di articoli manifatturati, di minerali e di metalli. Sessanta per cento del valore totale delle importazioni dal regno del 1865 fu rappresentato da tessuti. La seguente tavola indica il valore dei principali articoli esportati in quell' anno:—

Articoli principali	Valore £
Istromenti di agricoltura	210,300
Alcali e soda	1,123,906
Vestiti e calzoni	2,639,012
Armi e munizioni	1,134,256
Lardo e prosciutti	118,159
Sacchi vuoti	696,291
Bue e porco	39,774
Birra e cervogia	2,060,976
Libri stampati	511,388
Ottone d' ogni sorte	232,309
Burro	333,228
Candele di stearine	110,575
Carrozze	352,787
Smalto	285,898
Caccio	111,102
Carbone, carbone-coke, e ceneri	4,427,177
Rame non lavorato	496,148
„ „ lavorato	2,434,062
Corde e funicelle	414,213
Grano e fior di farina	274,636
Cottone filato	10,342,737
Manifatture di cotone:	
In pezzo, bianco e unito	27,791,035
„ „ stampato, tinto, o a colori	17,085,328
Merletti e reti	465,611
Calze	240,534
Filo per cucire	753,326
Calze corte, ecc.	587,550
Droghe e prodotti chimici non classificati	919,256
Terre cotte e majolica	1,442,197
Pesce, aringhe	500,233
„ altri pesci	189,005
Oggetti di addobbo e mobilia	289,887
Vetro cristallo	71,387
di rocca	302,105
da finestra	60,857
bottiglie ordinarie	310,245

Articoli principali	Valore £
Cadicierie, e generi di momma	5,030,740
Coltelli, temperini, ecc.	4,326,741
Cappelli d' ogni genere	483,594
Cavalli	185,367
Ferro, vecchio	12,587
ghisa	1,599,491
barre (non per ferrovie) chiocloni, viti	2,199,837
per ferrovie d' ogni genere	3,550,563
oggetti di ferro fuso	792,581
filo di ferro e lavori di filo	474,005
cerchi, lamine, e lastre per caldaje	1,603,964
lavorato d' ogni sorte	2,456,202
acciaio in pani, barre e in foglie	782,129
Gioie preziose	164,231
Giuta filata	82,141
manifatturata	311,540
Piombo in pani, tubi o condotti, lamine e palline	581,684
Do. minerale, minio, litargirio e bianco	186,123
Pelli conciate non lavorate	409,249
lavorate in stivali e scarpe	1,462,105
„ „ in altri oggetti	240,299
„ „ in sellerie e arnesi per cavalli	350,531
Lino filato	2,535,321
Manifatture di lino:	
Bianco o unito	7,126,330
Stampato, a quadrelli o tinto	606,040
Cambrie o giaconetto	300,201
Damascato e da tavola	111,040
Tela per vele	382,713
Filo per cucire	558,444
D' altre qualità	72,222
Macchine a vapore	1,958,333
„ d' altri generi	3,264,100
Pannelle	1,547,683
Colori	473,051
Carta per tappezzare	102,320
„ d' altra sorte	447,741
Frutte in aceto	328,381
Orierie e argenterie	62,532
Oggetti inargentati	112,452
Comestibili non specificati	308,052
Sale	274,631
Seta greggia	477,590
„ torta o filata	289,468
Manifatture di seta:	
In pezzo	550,852
Fazzoletti e sciali	251,786
Nastri	120,504
D' altri generi	481,239
Sapone	184,279
Spiriti inglesi	244,104
Fabbriche di carta da scrivere	405,067
Zuccheri raffinati	249,677
Fili e apparati telegrafici	148,679
Stagno non lavorate	498,570
bande stagnate	1,481,098

Articoli principali	Valore £
Lana di pecore e agnelli . . .	901,660
Lane torte e filate . . .	5,429,504
Manifatture di lana :	
Panno	4,023,954
Flanella, panni da letto, baietta	1,203,127
Stoffe a spina	13,360,527
Tappeti e droghetti . . .	861,453
D' altre qualità	655,669
Zinco, lavorato e non lavorato .	94,659
Altri articoli presi insieme . .	6,700,238
Totale	165,835,725

(k.) *Commercio dei Porti.*—Mancano i dati sul valore delle importazioni nei porti principali del regno. Quelli da cui vengono fatte le esportazioni sono Liverpool, London, Hull, Grimsby, Southampton, Newcastle, Hartlepool, Folkestone in Inghilterra e Cardiff nel Galles; e Glasgow Leith in Scozia. Le manifatture d' Irlanda sono generalmente imbarcate nel

porto di Liverpool. Delle intere esportazioni dal regno nel 1865 non meno del 66 per cento parti dai porti di Londra e di Liverpool.

Commercio Interno.—I soli rapporti che esistono intorno questo commercio riguardano quello delle coste ed il traffico delle ferrovie.

Il numero totale di navi impiegate nel trasportare merci di costa a costa nel regno, espresso in misura di tonnellate dal 1861 al 1865 fu :—

	Navi inglesi	Navi estere	Totale
	Tonnellate	Tonnellate	Tonnellate
1861	17,261,779	93,456	17,355,235
1862	17,397,687	72,673	17,470,360
1863	17,465,635	81,897	17,547,532
1864	17,350,579	66,107	17,416,686
1865	18,150,649	77,705	18,228,354

La tavola seguente indica l' intero traffico delle merci trasportate dalle ferrovie nelle tre divisioni del regno nel 1864 e nel 1865 :—

Traffico di merci nelle ferrovie	Inghilterra e Galles	Scozia	Irlanda	Regno Unito
	Tonnellate	Tonnellate	Tonnellate	Tonnellate
Merci in generale	1864 28,802,262 1865 30,640,967	1864 4,577,483 1865 4,487,135	1864 1,535,168 1865 1,659,536	1864 34,914,913 1865 36,787,638
Carbone, coke, minerali . . .	1864 61,890,954 1865 63,892,007	1864 13,245,363 1865 13,556,710	1864 310,364 1865 357,069	1864 75,445,781 1865 77,805,786
Animali :	No.	No.	No.	No.
Buoi	1864 2,083,254 1865 1,874,020	1864 482,656 1865 488,762	1864 427,447 1865 407,048	1864 2,993,357 1865 2,769,830
Pecore	1864 6,786,127 1865 7,001,654	1864 1,241,279 1865 1,819,125	1864 428,275 1865 515,632	1864 8,455,681 1865 9,336,411
Porci	1864 1,426,264 1865 1,448,731	1864 65,329 1865 88,388	1864 733,155 1865 887,577	1864 2,224,748 1865 2,424,696

NAVIGAZIONE.—(a.) *Commercio Estero.*—La misura totale in tonnellate dei navigli dichiarati e spediti (con carico e zavorra) nel com-

mercio estero del Regno Unito negli anni 1856, 1860 e 1865 sommò a :—

Anni	Dichiarati			Spediti			Totale		
	Inglese	Stranieri	Totale	Inglese	Stranieri	Totale	Inglese	Stranieri	Totale
	Tonnellate	Tonnellate	Tonnellate	Tonnellate	Tonnellate	Tonnellate	Tonnellate	Tonnellate	Tonnellate
1856	6,390,715	4,162,419	10,553,134	6,555,056	4,480,859	11,035,915	12,945,771	8,643,278	21,589,049
1860	6,889,009	5,283,776	12,172,785	7,025,914	5,490,593	12,516,507	13,914,923	10,774,369	24,689,292
1866	9,623,432	4,694,454	14,317,886	9,735,523	4,843,683	14,579,206	19,358,955	9,538,137	28,897,092

(b.) *Commercio da Costa a Costa.*—Una assai grande quantità di navi è impiegata in questo commercio. E solo dal 1854 che i navigli esteri possono essere impiegati in questo commercio. Dalla tavola annessa si può conoscere il progresso fatto dal 1856 in poi.

Numero di Tonnellate caricate con Navi pel Commercio di Costa a Costa.

Anni	Inglese	Stranieri	Totale
Nel 1856 . .	15,164,000	53,900	15,217,900
Nel 1865 . .	18,150,000	78,000	18,228,000

(c.) *Capacità del Naviglio appartenente al Regno Unito.*—La intera capacità dei bastimenti del regno registrati nel 31 dicembre 1865 era di 4,936,776 per legni a vela e di 823,533 per legni a vapore. La ciurma impiegata costava di 255,654 uomini.

Uffizio delle Poste.—Leggesi nell' ultimo rapporto del Direttore Generale delle poste: ' Il costante accrescimento durante una lunga serie di anni negli affari dell' Uffizio delle Poste ci da ogni ragione di credere che se la prosperità del paese non venisse a diminuire, le poste possano produrre un' entrata quasi uguale a quella ottenuta attualmente dalla tasse sulle proprietà; e questo senza sottrarre ai continui

sforzi fatti onde servire ai giusti bisogni e desideri del pubblico, ed anzi cercando effettuare tutti i possibili miglioramenti.'

L' aumento delle entrate di questo ramo nei dieci anni decorsi dal 1856 al 1865 fu:—

	Introito totale delle Poste	Spese totali negli uffici delle Poste	Entrata assoluta
	£	£	£
1856 . . .	3,035,954	2,438,732	597,222
1865 . . .	4,423,608	2,941,086	1,482,522
Aumento nel 1865 confrontato col 1856	1,387,654	502,354	885,300

Questo aumento è dovuto alla maggiore facilità offerta al pubblico di servirsi di questo mezzo di comunicazione, diminuendo la spesa sui bolli, aumentando il numero degli uffizj e delle buche postali, e col render più frequente la distribuzione delle lettere.

La spesa dei bolli per lettere spedite nello interno del regno è ora fissata:—

In lettere pesanti meno che $\frac{1}{2}$ oncia	1 soldo
Da $\frac{1}{2}$ oncia a 1 oncia . . .	2 soldi
„ 1 oncia a $1\frac{1}{2}$ oncia . . .	3
„ $1\frac{1}{2}$ oncia a 2 oncia . . .	4 „

E così via via aumentando un soldo per ogni peso aumentato di mezz' oncia o di una sua frazione. Libri, carte stampate e manoscritti possono pure esser trasmessi col mezzo della posta coi pagamenti qui indicati:—

Pesanti meno di 4 oncie . .	1 soldo
„ meno di 8 oncie . .	2 soldi

Campioni e mostre non oltrepassanti il peso di 24 oncie possono inviarsi collo stesso mezzo con pagamento anticipato di:—

Al di sotto di 4 oncie . .	2 soldi
„ „ 8 oncie . .	4 soldi
„ „ 16 oncie . .	8 soldi e
„ „ 24 oncie . .	1 scellino

La seguente tavola rappresenta il numero di lettere, giornali, libri o carte e campioni spediti per la posta in ciascuna divisione del regno nell' anno 1865:—

Divisioni	Lettere	Giornali, Libri, ecc.	Campioni
	No.	No.	No.
Inghilterra e Galles	597,277,616	73,192,132	940,771
Scotia . .	67,048,891	11,324,040	175,474
Irlanda . .	56,140,500	12,736,594	169,871
Regno Unito.	720,467,007	97,252,766	1,286,116

Un ramo importante delle poste è quello delle vaglie postali. Pagando una piccola quota si può mandare denaro da un uffizio di posta ad un altro in tutto il Regno Unito senza alcun rischio. Questo sistema di vaglie postali è pure in attività fra il Regno Unito ed alcune delle Colonie, e pendono pure negoziazioni onde

estenderlo a paesi esteri. Il valore totale delle vaglie emesse nel Regno Unito nel 1865 fu di 17,829,290 $\frac{1}{2}$, e di vaglie pagate di 18,144,550 $\frac{1}{2}$.

DISPACCI TELEGRAFICI.—Mancano dati completi a conoscere il numero esatto dei dispacci telegrafici spediti annualmente nel regno. Le statistiche dei telegrafi elettrici sono per quanto si può notare sotto la rubrica dei telegrafi elettrici.

ESERCITO.—Forze Regolari ed Ausiliari.

(a.) *Forze Regolari.*—La forza completa dell' esercito britannico, secondo i ragguagli dell' anno 1866-67, era di 137,195 uomini d' ogni grado, sullo stabilimento britannico, e di 65,287, d' ogni grado, di servizio in India, e pagati dal governo indiano. Il governo britannico paga altresì un corpo di 178 Indiani di servizio in Labuan. La tavola sottoposta dimostra il numero degli ufficiali, de' soldati, e de' cavalli appartenenti ai diversi rami di servizio. Si noti che queste truppe non sono già tutte raccolte nel Regno Unito; gran parte delle medesime è di servizio nelle molte colonie e dipendenze dello stato.

(b.) *Forze ausiliari.*—Le forze ausiliari appartenenti al regno sono la *milizia* (fanteria) la cavalleria campagnuola (*yeomanry*), i volontari, i pensionati arruolati e la forza di riserva.

La milizia si compone d' uno stato maggiore permanente di 5,070 ufficiali e sotto-ufficiali. Questa forza vien chiamata sotto le armi ogni anno per ventisette giorni d' esercizi e d' istruzione, e il numero anticipato per l' anno che corre sarà di ufficiali 3,507, sotto-ufficiali, 5,464, e soldati 120,000.

La cavalleria campagnuola consta d' uno stato maggiore permanente di 390 ufficiali e sotto-ufficiali. Questa forza è in attività otto giorni per anno, e quest' anno si crede raggiunga ai 16,000 d' ogni grado.

I volontari si compongono d' artiglieria, cavalleggeri, genio e bersaglieri. Il governo concede trenta scellini a testaa quei volontari artiglieri, e venti scellini ai cavalleggeri, ingegneri, e bersaglieri che assistono agli esercizi ed all' istruzione un dato numero di volte nello anno. Questa forza conta da 130,000 a 140,000 uomini.

MARINA REALE.—Flotta — Guardacoste — Truppa Marittima—Navi.

Il seguente ragguaglio della forza marina reale è tolto dai 'Computi Ministeriali' del 1866-67:—

(a.) Flotta—Servizio attivo.

	Numero
Ufficiali di bandiera in commissione . .	210
Ufficiali d' arsenali e di stabilimenti della marina . . .	57
Ufficiali in carica ed altri superiori al grado di bassi ufficiali . . .	3,676
Ufficiali inferiori . . .	801
Ufficiali subalterni . . .	1,110

Stabilitimenti Britannici.

	Ufficiali	Sotto-ufficiali	Soldati	Totale	Cavalli
Reggimenti:—					
Regia Artiglieria a cavallo	86	132	1,720	1,938	1,356
Scuola d' Equitazione	7	13	205	225	122
Guardia Reale (Cavalleria)	99	192	1,029	1,320	825
Cavalleria di linea	578	1,035	8,415	10,028	5,889
Artiglieria (Reale)	799	1,712	14,250	16,761	2,421
Genio (Ingegneri)	398	374	3,918	4,690	307
Trasporto militare	92	183	1,521	1,796	996
Guardie a Piedi	257	446	5,250	5,953	—
Fanteria di linea	3,740	6,914	65,510	76,164	—
Ambulanza	1	220	779	1,000	—
Commissariato	1	112	488	601	—
Fornitura militare	1	31	168	200	—
Reggimenti dell' India Occidentale	196	271	3,000	3,467	—
Corpi Coloniali	157	326	3,586	4,069	450
	6,412	11,961	109,839	128,212	12,366
Depositi nel Regno Unito di reggimenti in India	437	974	7,572	8,983	460
Forza totale sullo stabilimento britannico	6,849	12,935	117,411	137,195	12,826
Stato Maggiore Generale.	93	—	—	93	—
Stabilitimenti (esclusi parecchi ufficiali già notati ne' reggimenti) di arruolamento, d' insegnamento militare, cannone, ecc. ecc.	178	278	92	548	28
Scuole militari	30	241	10	281	—
Forza totale spesa coi fondi dell' esercito	7,150	13,454	117,513	138,117	12,854
Forze britanne in India (pagate dalla rendita Indiana).					
Regia Artiglieria a cavallo	200	249	2,680	3,129	—
Cavalleria di linea	352	603	4,466	5,421	—
Artiglieria (Reale)	699	790	8,140	9,629	—
Ingegneri	336	—	—	336	—
Fanteria di Linea	2,028	3,664	41,080	46,772	—
Totale	3,615	5,306	56,366	65,287	—

Marinai 31,446
 Ragazzi (inclusi 2,750 nelle navi di istruzione) 7,000
 44,300

(b.) Servizio di Guardacoste.

A bordo—ufficiali, marinai e ragazzi 2,950
 In terra—ufficiali ed uomini 4,200
 7,150
 Impiegati civili 550

(c.) Soldati di mare.

Ufficiali di stato maggiore 120
 Ufficiali 420
 Bassi ufficiali e soldati 15,860
 Totale (di servizio a bordo, 8,000; in terra, 8,400) 16,400
 Forza totale di servizio sulla flotta e di guardacoste 68,400

(d.) Navi, ecc., Marina Reale—Esposizione del numero di navi a vapore in attività e in corso di costruzione, e di quelle a vela in attività il primo febbraio 1866:—

NAVIGLIO MERCANTILE.—*(a.) Marinai.*—Il numero totale delle ciurme dei vascelli registrati appartenenti al naviglio mercantile inglese ai 31 dicembre 1865, era di 255,654 uomini.

(b.) Vascelli.—Il numero e la misura di carico dei vascelli registrati appartenenti al naviglio mercantile del Regno Unito ai 31 dicembre 1865:—

	Numero	Misura di carico a Tonnellate
Vascelli a vela	26,069	4,936,776
„ a vapore	2,718	823,533
Totale	28,787	5,760,309

FINANZE.—**Rendita totale dello Stato e Spesa—Rami e Rendita—Tasse revocate, ecc.—Rami di Spesa—Bilancio 1867—Debito Nazionale.**

La rendita del Regno Unito ricavasi in parte mediante tasse dirette, e in parte indirette. Principali fra le prime sono quelle sulle case, ecc., sull' entrate e sulla proprietà; dell' altre, la dogana, il dazio consumo, e i bolli.

L' intera rendita e spesa degli ultimi tre anni ammontò a:—

Anno finito ai 31 marzo	Rendita £	Spesa £
1864	70,208,964	67,056,286
1865	70,313,437	66,462,207
1866	67,812,292	65,914,357

Il che mostra un vistoso accrescimento della entrata per ciascun anno. Dal rendiconto qui sopra si esclude la spesa per le fortificazioni, che toccarono le 800,000£, 620,000£, e 560,000£. nei rispettivi anni e alla quale si provvede con rate annue.

Classi di Navi	Navi a Vapore			Navi a vela in attività	Totali
	Attive	In Costruzione	Totale		
<i>Navi corazzate :—</i>					
Navi, di 3 ^o ordine { di ferro Elice	8	1	9	—	9
" "					

(a.) *Rami di Rendita*.—Col fine d' indicare le principali sorgenti della rendita basterà il dar qui sotto la somma raccolta nell' anno che finiva ai 31 marzo 1866, nel quale si ebbero:—

Rami	Rendita totale, senza sottrarne le spese di collezione
	£
Diritti di dogana	21,276,000
Dazio consumo	19,788,000
Bolli	9,560,000
Tasse sulle case, ecc.	3,350,000
Tassa sull' entrate o sulla proprietà*. }	6,390,000
Ufficio della posta	4,250,000
Terre della corona	320,000
Miscellanee	2,878,292
Totale	67,812,292

* La somma ricavata dalla tassa sull' entrate patì un forte ribasso a fronte di quello che raccoglievasi da tal sorgente negli anni decorsi, perchè tal tassa venne ridotta a 4d. la lira sterlina.

Gioverà forse l' indicare quali generi tassati e spettanti alla dogana ed al dazio consumo fornissero la rendita del detto anno.

La rendita della dogana si ricava quasi per intero da sette articoli, cioè:—

	1866
	£
Da zucchero e molasso	5,228,460
„ tè	2,599,817
„ caffè	371,495
„ grano e fior di farina	743,145
„ spiriti	3,505,176
„ vino	1,407,021
„ tabacco da fumare e in polvere	6,274,298

Dal tè si ricavò molto meno degli anni anteriori, essendosi ribassata la tassa su d' esso a 6*d.* la libbra.

I principali rami del dazio consumo furono nel 1865:—

	£
Da spiriti	10,176,731
„ orzo cotto (per birra) . .	6,394,553
„ licenze ossia privative . .	2,144,402

Tasse revocati, ecc.—La tavola qui sotto mostra il montante delle tasse revocate o ribasate, ed imposte nel corso d'anni quindici, 1851 al 1865:—

Rami	Rivocate o Ritassate	Imposte	Ribasso (—) Aumento (+)
	£	£	£
Dogana . .	14,089,384	3,293,396	-10,795,988
Dazio con- sumo	5,161,000	6,380,000	+ 1,219,000
Entrate proprietà Altre tasse	18,865,000	14,764,000	- 4,101,000
Bolli (inclu- sa la gabel- la sulle suc- cessioni) . .	2,608,000	600,000	- 2,008,000
	1,428,000	2,411,200	+ 983,200
Totale . .	42,151,384	27,448,596	-14,702,788

(b.) *Rami di Spesa*.—I principali rami di spesa per l'anno spirato ai 31 marzo 1866, furono:—

Interesse ed Esercizio del Debito Nazionale:—	£
Debito iscritto	25,904,488
Debito non iscritto . . .	328,800
Debito totale	26,233,288
Lista civile e spesa civile d'ogni genere	10,250,065
Forze: Esercito, inclusa l'artigli- eria	14,569,279
Marina	10,259,788
Forze totali	24,829,067
Spese per l'esazione della Rendita	4,601,937
Totale	69,914,357

(c.) *Bilancio, 1866-1867*.—L'anticipata rendita dell'anno che spira ai 31 marzo 1867, è di 67,013,000*l.*, e la spesa di 66,662,000*l.*

(d.) *Debito Nazionale*.—L'intero Debito Nazionale ai 31 marzo 1866, era:—

Debito Iscritto:	
Capitale di debito iscritto non redimibile	£ 773,313,229
Capitale approssimativo di rate annue	21,342,020
Debito non iscritto	8,187,700

TASSAZIONE LOCALE O MUNICIPALE.—Soltanto dal 1862 in poi si è potuto verificare per l'Inghilterra e il Principato di Galles il montante della tassazione locale, e non esistono ragguagli d'essa per le altre divisioni del regno. I vari rami di tasse locali in Inghilterra e nel Principato di Galles nel 1864 (senza contare la Direzione de' Cimiteri) erano:—

Descrizione delle Imposte, ecc.	Somma ricevuta £
Imposte di Chiesa	241,960
Imposte di Chiaviche	44,009
Commissione delle Chiaviche per la città di Londra	17,242
Condotti di scolo sotterranei ed Argini	147,145
Illuminazione, ecc.	42,194
Ai Commissari di Miglioramenti . .	332,983
Metropoli: Maneggio locale . . .	850,504
Condotti e Scolì prin- cipali	150,881
Mercati e Fiere	44,547

Descrizione delle Imposte, ecc.	Somma ricevuta £
Ponti e Chiatte	108,773
Porti	1,107,751
Amministrazioni o Consigli locali (incluse le imposte per mi- glioramenti e per fornire le acque	352,016
Imposta de' Poveri (che include le guardie di pubblica sicurezza e della contea)	9,448,319
Imposta per la guardie di Polizia della Metropoli	354,627
Città di Londra (che include le gabelle sul carbone, sul vino, la tassa di polizia, e delle chi- aviche)	421,625
Imposte sul borgo	311,953
Imposte sulle strade maestra . .	1,416,629
Barriere	1,066,156
Diritti del 'Trinity House' di navigazione, ecc.	374,115
Totale	16,833,429

BANCHE.—Nell'anno 1864 l'intero numero degli stabilimenti bancari nelle divisioni del Regno Unito era:—

	In Inghilterra e Galles	Scotia	Irlanda	Regno Unito
Banche d'Inghilterra e d'Irlanda e loro rami	12	—	30	42
Banche e loro rami	553	—	4	557
Associazioni bancarie e loro rami	857	614	181	1,652
Totale	1,422	614	215	2,251

Il numero medio di cedole emesse dai banchi privati aventine il privilegio nel 1864 fu di 3,112,725*l.*; e dalle associazioni bancarie di 33,286,921*l.* Resoconto del quantitativo complesso medio delle cedole al portatore pagabili a piacere in circolazione nel Regno Unito nell'ultimo mese degli anni 1863, 1864, e 1865:

	1863	1864	1865
In Inghilterra e Galles:			
Banco d'Inghil- terra	£ 21,355,000	£ 20,330,000	£ 21,294,000
Banchi d'Indi- vidui	3,220,036	3,058,931	2,977,264
Associazioni bancarie	2,899,560	2,754,068	2,789,654
In Iscozia:			
Banchi privile- giati, d'Indi- vidui, e di Associazioni	4,639,664	4,626,796	4,903,980
In Irlanda:			
Banco d'Irlanda	2,528,500	2,491,000	2,744,950
Banchi d'Indi- vidui e di Associazioni	3,411,753	3,381,706	3,946,290
Totale	38,054,513	36,642,501	38,656,138

SOCIETÀ IN COMMANDITE.—Noteremo qui brevemente le recenti alterazioni introdotte sulla responsabilità dei soci nei banchi, nelle società di credito e in tutte le grandi intraprese commerciali. Una memoria fu recentemente letta su questo soggetto dal Sigr. W. Hawes avanti la società delle Arti da cui togliamo i seguenti estratti:—

Due sole forme di società erano adottate in questo paese fino agli ultimi anni per intraprese commerciali, l'una consistente nell'unione o compagnia di molti individui che si univano per uno scopo comune mercanteggiando sotto la protezione di privilegi reali, o come più recentemente legati da leggi speciali del parlamento, ognuno dei quali individui intendeva limitare la responsabilità dei soci al montare delle loro sottoscrizioni. L'altra formata di individui dichiaratisi soci, mercanteggiando col nome di uno o di tutti, e guidati da regole e forme convenute fra loro, che non potevano mai esentarli individualmente e collettivamente da una responsabilità che comprendeva tutta intera la loro proprietà e fortuna pei debiti contratti nelle loro operazioni. Questa seconda classe, di due o più individui legati a mercanteggiare con responsabilità senza limite ha sempre prevalso in questo paese ed ha formato il tipo delle società da cui sono stati condotti gli affari nella loro grande maggioranza. La revocazione della così detta legge di usura, i frequenti privilegi accordati, e le numerose leggi parlamentarie passate, sempre tendenti a limitare la responsabilità individuale, come l'accrescimento del commercio estero con paesi ove la limitazione di responsabilità era adottata nelle società commerciali hanno influito a tor via gli impedimenti che esistevano all'introduzione di capitali per uso di commercio, e gli inciampi che negavano ai privati la libertà di far quei patti per l'amministrazione dei loro affari che più credessero vantaggiosi. Queste cause consigliarono al parlamento le leggi passate nel 1856, 1857 e 1862, e poi a quella del 1865, le quali, quantunque in una maniera non ancora abbastanza lucida, hanno permesso a uomini di affari associati in piccolo o gran numero di prendere capitali ad prestito e dividerne i profitti nella maniera che paresse a loro più vantaggiosa.

Coll'introduzione di questo principio abbiamo veduto formarsi un gran numero di nuove compagnie; e nel corso dei due ultimi anni molte grandi manifatture appartenenti ad individui sono state convertite in commandite con ragionevoli prospetti di trarne risultati assai migliori di quelli che fossero ottenibili col vecchio sistema.

EDUCAZIONE.—Generale—Elementare nella Gran Bretagna e nell'Irlanda—Scuole diurne e della domenica—Scienza ed arte—Esami di media classe.

Il sistema d'educazione (se pur tale potrebbe dirsi) del Regno Unito è cosa complessa in

sommo grado. L'educazione è in tutto libera, ed è lecito ad ognuno di stabilir scuole, raccogliere fanciulli ed ammaestrarli nelle proprie dottrine. Fino all'anno 1833 lo stato non ebbe parte veruna nell'educazione del popolo, ne ma d'allora in poi incominciò a prestar aiuto, sotto certe condizioni, alle scuole elementari che oggi pure ne godono. Il dipartimento della Scienza ed Arte (stabilito nel 1853) è altresì sostenuto dal Governo, e si danno sovvenzioni ad altri istituti esistenti per lo sviluppo ed avanzamento delle scienze.

Un elenco delle diverse classi di scuole, licei, collegi, ecc., che spettano all'educazione gioverà ad illustrare il macchinismo educatore del paese:—

1. Scuole elementari pubbliche, diurne e della domenica.
2. Scuole normali-pubbliche per l'insegnamento de' maestri delle scuole elementari.
3. Scuole private.
4. Scuole pubbliche di grammatica e dotate.
5. Scuole pubbliche, quali militari, di marina, demaniali, di corporazioni, de' poveri, di prigioni, ecc.; e del pari,
Scuole (dette de' cenciosi, degli orfanelli, de' ciechi, de' sordi e muti, degl' idioti, delle fabbriche, delle carbonaie, ecc.
6. Università e collegi.
7. Istruzione domestica e classi private.
8. Media classe, ossia esami locali, istituiti dal collegio de' Precettori nell'anno 1854, dalla società delle Arti nel 1856, e dalle Università d'Oxford e di Cambridge nel 1858.
9. Istituti d'artigiani, collegi d'operai, e classi serali.

Le suddette scuole, ecc., si possono considerare siccome spettanti all'ordinaria educazione. Le seguenti offrono i mezzi più importanti per estendere l'insegnamento speciale nell'arte e nella scienza:—

Dipartimento della scienza e dell'arte, con scuole succursali per tutto il paese.
Regia scuola d'Architettura Navale e d'Ingegneri marittimi.
Regia scuola delle Miniere.
Museo di Scienza e d'Arte d'Edinburgo.
Museo d'Industria irlandese.
Regia società di Dublino. E molte altre.

Le accademie reali di Pittura e di Musica meritano pure d'essere menzionate specialmente come contribuenti in non piccola parte ad elevare il gusto nazionale.

Gli avvocati, i Procuratori, i Chirurghi, gli Speciali debbono passare esami indicati da leggi prima di essere ammessi all'esercizio delle loro professioni, e simili regolamenti sono imposti agli aspiranti all'esercito, alla marina e al servizio governamentale. Poche linee non sono adeguate a descrivere ciascuna delle sindacate

classi di scuole ecc., ecc. Queste però possono esser divise generalmente in due classi. 1° *Private*, 2° *Pubbliche*. Le prime sono interamente mantenute dai pagamenti fatti dagli studenti, e comprendono la maggioranza dei fanciulli appartenenti alle classi superiori e medie della società; le seconde sono quelle che derivano una parte delle loro entrate da altre sorgenti oltre i pagamenti dagli scolari. A questa classe appartiene l'educazione della classe degli operai, e crediamo interessante il fare alcune osservazioni sui mezzi impiegati alla loro istruzione.

Educazione Elementare.—1. *Gran Bretagna*.—Abbiamo già detto che solo nel 1833 lo stato cominciò a sussidiare le scuole elementari del regno. Fino a quell'epoca l'educazione popolare non era sorretta che dalla generosità degli individui animata principalmente da zelo religioso e fidando interamente nella direzione delle due grandi società *British* e *National*.

Il governo ha speso dal 1839 al 1866 nella educazione popolare della Gran Bretagna 8,724,000^l. Le somme destinate annualmente dal Parlamento a questo scopo sono amministrate dal dipartimento di Educazione. Le condizioni imposte nel voto parlamentario sono troppo estese per poter essere annoverate in questo luogo, ma saranno inserite nel rapporto del consiglio di educazione.

Secondo l'ultima relazione per l'anno 1865 gli ispettori hanno visitate 12,950 scuole, o divisioni di tali scuole, sotto la direzione di vari maestri. Il numero di fanciulli presenti alle visite era di 1,246,055, di maestri con diploma 11,266; di maestri assistenti 933; e di apprendisti 11,383. Dell'intero numero delle scuole, 2,282 erano esclusive per maschi; 1,888 per sole femmine; e 5,858 promiscue; 1,707 per bimbi di età al di sotto di 7 anni; e 1,215 per allievi serali. Del numero totale di fanciulli presenti 698,221 erano maschi, 547,834 femmine.

Esistono però diverse scuole elementari che non dipendono dalla sorveglianza del decastrero di educazione.

La tavola seguente denota l'entrata e la uscita di 7,770 delle scuole visitate nel 1865:—

Entrate	Montante	Spese	Montante
	£		£
Dotazioni	56,424	Salario ai maestri	980,056
Contribuzioni volontarie	356,810	Libri e istrumenti	53,389
Paghe fatte dagli allievi	424,547	Miscelanee	256,956
Sussidii di governo	322,846		
Altre risorse	98,299		
Totale	1,258,926	Totale	1,290,401

Il coacervo di entrata e spesa per ogni alunno era:—

	In Inghilterra e Galles §			In Iscozia		
	£	s.	d.	£	s.	d.
Inclusi i sussidii di governo:						
Entrata	1	5	8 ³ / ₄	—	*	—
Spesa	1	6	5 ¹ / ₂	—	—	—
Sussidii di governo esclusi:						
Entrata	0	18	2 ³ / ₄	0	18	1 ¹ / ₂
Spesa	0	18	11 ³ / ₄	0	18	1 ³ / ₄

* In Iscozia i sussidii governamentali sono pagati direttamente ai maestri e non fanno parte dei fondi posti a disposizione dei direttori.

Età degli Alunni.—Nel 1865, 71% del numero totale non aveva compiuto il decimo anno; 27% erano fra il decimo ed il quattordicesimo; e 2% erano di là dei 14 anni.

Stipendi dei Maestri.—Il coacervo degli stipendi annui dei maestri nelle scuole sussidiate dal governo in Inghilterra nel 1865 era:—

	Con diploma			Senza diploma		
	£	s.	d.	£	s.	d.
Insegnanti	86	10	9	58	16	
Maestre	55	2	1	38	8	5
Maestre per alunni non sorpassanti i 7 anni	52	3	3	30	1	1

2. Scuole Nazionali in Irlanda.—L'educazione elementare in Irlanda dipende dal consiglio di Educazione nazionale. In Irlanda la istruzione religiosa è disgiunta dal corso regolare degli studi. Le scuole nazionali in Irlanda al finire del 1864 montavano a 6,263, con un medio giornaliero di fanciulli presenti di 315,108. L'incasso totale era di 340,758^l, di cui i sussidii di governo contavano per 251,016^l. Esistevano in oltre 36 scuole-modello, 55 comune di agricoltura, e 3 di giardinaggio. Gli stipendi variavano da 38^l a 52 pei maestri di prima classe e da 30 a 40 per le maestre, con gradazioni inferiori per maestre meno valenti.

Statistiche Generale.—Diamo qui sotto la statistica degli ultimi rapporti mostrandoti il numero complesso degli individui riceventi istruzione nelle scuole di ogni classe in Inghilterra e in Galles.

	Scuole	Alunni		
		Maschi	Femmine	Totale
Scuole diurne:				
	Pubbliche	24,563	911,152	764,006
	Private	34,412	389,607	470,697
Totale		58,975	1,300,759	1,234,703
Scuole domestiche		33,872	1,189,725	1,221,829
				2,411,554

L' accennato ragguaglio fu compilato nel 1858 e comprende le scuole di ogni credenza religiosa.

Secondo il censo del 1861 il numero totale

degli alunni d' ambo i sessi nelle divisioni del regno era:—

Divisioni	Alunni		
	Maschi	Femmine	Totale
Inghilterra e Galles	1,552,738	1,597,310	3,150,048
Scozia . . .	211,803	225,253	467,056
Irlanda . . .	342,997	305,380	648,377
Totale nel regno	2,137,538	2,127,943	4,265,481

Educazione di scienze ed arti.—L' ultimo rapporto del decastero delle scienze ed arti per l' anno 1865 dà 158 istituzioni e scuole (non comprese 6 di navigazione) in cui istruzione scientifica veniva impartita da maestri laureati. Di queste 121 erano in Inghilterra, 8 in Scozia e 29 in Irlanda. Le classi montavano a 484 e il numero degli studenti a 6,835.

Il numero delle Scuole d' Arti montava nello stesso anno a 92, frequentate da 16,621 studenti, e da 89,967 fanciulli nelle scuole elementari.

Il decastero delle scienze ed arti, oltre allo assistere le classi operaie ad ottenere istruzione in quei rami di scienze ed arti che più direttamente hanno affinità colle loro occupazioni, è incaricato dell' amministrazione del Museo di South Kensington che è il gran deposito centrale dei modelli di scienze ed arti, che per quanto è possibile sono impiegati a beneficio di tutto il regno.

Esami per le Medie classi.—Nel 1854, colla istituzione di esami agli allievi delle diverse scuole dal collegio dei Precettori, venne dato un grand' incoraggiamento alla promozione di una solida educazione per le medie classi. La Società delle Arti nel 1856 cominciò il suo piano di esami per gli individui che assistevano alle classi delle istituzioni meccaniche.

Nell' anno 1858 le Università di Oxford e di Cambridge istituirono i così detti Esami locali universitari. Il numero dei candidati esaminati da queste corporazioni nelle diverse parti del paese è montato da 587 nel 1854 a 5,438 nel 1866. Gli esami all' Università di Cambridge, al collegio dei Precettori, e alla società delle Arti sono aperti agli individui d' ambo i sessi; quelli dell' Università di Oxford sono fino ad ora privilegio del sesso maschile.

Il numero dei candidati che si presentarono agli esami nell' anno 1866 fu:—

All' Università di Oxford . . .	1,228
All' Università di Cambridge . . .	1,538
Al Collegio dei Precettori . . .	1,575
Alla Società delle Arti . . .	1,097

È quasi impossibile esagerarsi l' importanza di un tale movimento che ha già dimostrati miglioramenti reali nell' educazione delle classi medie e più particolarmente nelle scuole private.

ASSICURAZIONE.—Di Vita—Contra il Fuoco—Maritima.

(a.) *Di Vita et Maritima.*—Non ci sono rapporti della somma delle assicurazioni di Vita e Maritime, siccome le compagnie non sono tenute a dar rendiconto dei loro affari. L' assicurazione di Vita è, però, di molto accresciuta negli ultimi quindici anni.

(b.) *Contro il Fuoco.*—In quanto alle assicurazioni de' beni Stabili e Mobili, e de' prodotti locali, e attrezzi Agricoli, l' imposta sulle polizze delle quali si raccoglie ogni anno, si può avverare la somma assicurata dalla statistica de' bolli emessi. Nel 1864, vennero assicurate le seguenti somme in ciascuna delle tre divisioni del regno:—

Divisioni	Supposto Valore de' beni Assicurati	Supposto Valore de' prodotti ecc. Agricoli Assicurati
Inghilterra e Galles . . .	£ 1,101,444,000	£ 69,455,000
Scozia . . .	92,234,000	6,564,000
Irlanda . . .	58,202,000	1,151,000
Totale . . .	1,251,880,000	77,170,000

I prodotti ecc. agricoli non sono soggetti alla imposta del bollo. La tassa sulle assicurazioni contro il Fuoco è di 1s. 6d. per ogni 100l. assicurate.

ISTITUZIONI CHE TENDONO AL BENESSERE DELLE CLASSI OPERAIE.—*Casse di Risparmio Postali—Rendite annuali ed Assicurazione—Società Amichevoli, Co-operanti, di Pres-titi, di Casamenti, e di Terreni—Fratellanze Artigiane.*

(a) *Casse di Risparmio.*—Esistono attualmente due classi di Casse di Risparmio. 1° Quelle attivate dal 1817 in poi; e 2° Le Casse di Risparmio postali stabilite nel 1861.

Una Cassa di Deposito sperimentale pei marinai è stata aperta in Liverpool sotto la soprintendenza del Consiglio di Commercio. Alle somme depositate non si accordano frutti, ma un marinaio può depositarvi e ritirarne denari a piacere. I marinai che partono possono trasferire il loro danaro ad una cassa di risparmio che concede frutto a ragione del tre per cento all' anno.

La tavola che segue mostra il numero dei singuli depositanti, e delle Società amichevoli e degli stabilimenti caritatevoli che depositarono i loro fondi nelle antiche casse, e delle somme depositate, divise in classi, siccome fu redatto dalle suddette casse ad uso de' Commissari del Debito Nazionale, ai 20 novembre 1865.

	Numero de' Depositanti	Somma del Depositi, incluso l'interesse	Medio Montante d' ogni Conto
Ai 20 novembre 1865			
		£	£ s. d.
Non eccedente £1	251,820	69,058	0 5 5
" " 5	275,785	702,116	2 10 11
" " 10	177,384	1,250,381	7 0 1
" " 15	125,516	1,510,850	12 0 8
" " 20	79,577	1,369,962	17 4 4
" " 30	134,817	3,247,909	24 1 10
" " 40	103,926	3,491,997	33 12 0
" " 50	56,991	2,529,887	44 7 10
" " 75	94,197	5,732,215	60 17 0
" " 100	46,454	4,022,759	86 12 0
" " 125	32,413	3,589,615	110 14 10
" " 150	18,692	2,545,825	136 4 0
" " 200	30,887	5,298,967	171 10 11
Oltre alle	200	2,152	450,302
		209 4 3	
Singoli deposi- tanti .	1,430,611	35,811,843	25 0 10
Casse d' un soldo .	891	65,426	73 7 3
Istituti di carità .	14,446	696,768	48 4 0
Società amiche- voli* .	11,619	1,869,970	161 0 0
Totale .	1,457,567	38,444,007	26 7 8

* Il numero ed il montante qui sopra de' depositi delle società amichevoli si riferisce soltanto a quelle che avean fondi nelle casse di risparmio; escluse quelle società i cui fondi sono depositati presso i commissari.

Il numero delle società depositanti presso i commissari ai 20 novembre, giungeva a 545; la somma depositata, 1,915,703 $\frac{1}{2}$; somma media d'ogni conto 3,496 $\frac{1}{2}$.

(b.) *Casse di Risparmio Postali.*—La posizione delle Casse di Risparmio Postali ai 31 dicembre 1865, era come segue:—

Numero di Casse di Risparmio Postali	3,321
Numero di depositi ricevuti dal 16 settembre 1861 in poi	3,895,135
Somma totale de' depositi	£ 11,834,979
Somma media d' ogni deposito	3 $\frac{1}{2}$ 0. 9d.
Somma totale ritirata dal 16 settembre 1861 in poi	£ 5,619,250
Media somma d' ogni ripagamento	5 $\frac{1}{2}$ 11s. 1d.
Spese d' amministrazione	£ 141,375
Costo medio d' ogni deposito o ritiro	6 $\frac{9}{10}$ d.
Somma totale esistente a credito di tutti i conti aperti, incluso l' interesse, ai 31 dicembre 1865	£ 6,526,400
Somma media a credito di ogni singolo conto aperto alla stessa data	10 $\frac{1}{2}$ 13s. 4d.

Le Casse di Risparmio Postali sono stabilite in tutti gli uffizi per vaglie postali nel Regno Unito, e sono aperte per ricevere e pagare danari ogni giorno nelle ore fissate per transazioni delle vaglie.

In dette casse si ricevono depositi d' uno scellino, o di qualsivoglia numero di scellini;

ma a nessuno è lecito depositare più di 30 $\frac{1}{2}$ l. in un anno, o più d' un insieme di 150 $\frac{1}{2}$ l., esclusi i frutti.

L' interesse, a ragione di 2 $\frac{1}{2}$ l. 10s. per cento l' anno (che equivale a 6d. per lira sterlina, o a mezzo-penny per ogni lira sterlina ogni mese, contando dal primo giorno del prossimo mese che segue il giorno nel quale si sia depositata una lira sterlina intera, sino all' ultimo giorno del mese che preceda il giorno nel quale si sia ritirato il danaro) viene accordato fino a che la somma a credito del depositante arrivi a 200 $\frac{1}{2}$ l., dopo di che cessa ogni frutto. L' interesse dovuto a ciascun depositante si aggiunge al di lui capitale ai 31 dicembre d' ogni anno.

(c.) *Rendite annuali ed Assicurazioni.*—Le casse di risparmio emettono altresì rendite annuali. Le antiche casse ne emettono, non maggiori di 30 $\frac{1}{2}$ l., alle classi operaie; ma in seguito di più recenti ordinamenti spettanti alle casse postali si emettono dalle medesime non solo rendite annuali ma bensì assicurazioni. I seguenti sono gli ordinamenti principali della assicurazione governamentale e dell' ufficio delle rendite annuali:—

Dall' atto 27 e 28 Victoria, cap. 43, al capo delle poste si danno poteri d' assicurare la vita di persone d' ambo i sessi, tra l' età d' anni 16 e 60, per non meno di 20 $\frac{1}{2}$ l. nè più di 100 $\frac{1}{2}$ l. In forza dello stesso atto può concedere rendite annuali immediate o differite non maggiori di 50 $\frac{1}{2}$ l., sulle vite di persone d' ambo i sessi, d' anni 10 e in su. Quelli a cui si assicura la vita, o a cui si accordano rendite annuali del Capo delle Poste, hanno l' immediata garanzia del governo per il pagamento a tempo debito del danaro.

Alcuni uffizzi della posta (i nomi dei quali si possono sapere in qualunque uffizio postale) sono stati aperti onde ricevervi le richieste d' assicurazioni sulla vita, e per l' acquisto di rendite annuali; e i prospetti, con ampie spiegazioni sul modo di riempire e consegnare i suddetti, si procacciano presso cotesti tali uffizi della posta.

Esistono tavole stampate dei premi o pagamenti imposti per le assicurazioni della vita; per la concessione di annuità immediate; per la concessione di annuità differite, o di sussidi differiti mensili con o senza restituzione del valore intrinseco, e sono ostensibili agli uffizi postali che ricevono le proposte. Il prezzo delle tavole per assicurazione della vita e concessioni di annuità senza restituzione del valore intrinseco è di tre soldi e mezzo; quello per le tavole con restituzione del valore intrinseco di due soldi. E se inviate per la posta le prime costano cinque soldi, le seconde tre.

I premi per le assicurazioni della vita cangiano a seconda dell' età delle persone la cui vita si assicura e del modo in cui i pagamenti debbono esser fatti.

Le annuità o sussidi mensili accordati sulla vita di un individuo non debbono eccedere le 50 $\frac{1}{2}$ l. annue o 4 $\frac{1}{2}$ l. 3s. 4d. per mese; non è però necessario che il valore delle compre di tali

annuità o sussidi sia sborsato ad un tratto. Il compratore può pagarne tal parte che gli accomoda e crescerne l'acquisto di mano in mano che le sue circostanze glielo permettono.

Marito e moglie possono assicurarsi ognuno per l'intera somma di 100 L. , e comperare ognuno d'essi un' annuità di 50 L. , o un sussidio mensile di 4 L. 3s. 4d. Due individui qualsivoglia possono comperare un' annuità sulle loro vite con o senza continuazione dell' annuità al sopravvivente.

I pagamenti per le assicurazione della vita, o le rate di compe per i sussidi possono farsi in qualunque ufficio postale aperto, o che possa aprirsi in futuro a tal uopo a scelta dell' individuo secondo gli paresse più di suo vantaggio.

Le persone desiderose di assicurarsi la vita, o di comperare sussidi mensili differiti debbono munirsi a loro spese di certificati di nascita, di battesimo o d'altre prove di età che venissero loro richieste, ma non saranno tenuti a pagare nè per esame medico, nè per spese di inchieste sulla loro salute, abitudini, età od occupazione che piacesse al Direttore-Generale di fare sul conto loro. E nemmeno saranno incaricati di alcuna spesa per la forma di contratto che possa esser necessaria per la loro domanda, per la trasmissione per posta di questa loro domanda nè per alcuna corrispondenza fosse passata fra loro ed il Direttore-Generale derivante da questa transazione, poichè tali spese tutte sono computate nei premi da pagarsi da loro secondo le tavole stabilite per tali oggetti.

Gli individui che vogliano comperare annuità immediate o differite pagabili ogni semestre debbono procurarsi a loro spese le fedì di nascita o di battesimo, o qualunque altra prova di età che venga loro richiesta, e come le tavole compilate per la concessione di tali annuità non alludono a coteste spese debbono inoltre pagare all' epoca della compra un' imposta di 1s. per ogni 1 L. di annuità comperata.

Sul fine del 1865 il numero delle assicurazioni in forza era di 560, e le somme assicurate montavano a 41,734 L. Alla stessa epoca 94 annuità immediate, e 54 differite erano comperate, o si stavano comperando. L' esistenza delle annuità e assicurazioni postali non è ancora estesamente conosciuta dalle classe operaie nel paese, ma non v'è luovo a dubitare che quando lo sarà fra pochi anni le classi industrie non si dispongano in gran numero a fruire dei vantaggi offerti loro da questi due rami di annuità e di assicurazione.

(d.) *Società Amichevoli.*—Il capo dei Registri delle società Amichevoli nell' ultimo suo rapporto asserisce che gli oggetti per cui società amichevoli potevano esser stabilite secondo gli statuti riferibili a tali società, erano circoscritti, in primo luogo, ad assicurare una somma da pagarsi alla nascita di un figlio di un membro, o alla morte di un membro, o per le spese funerali della moglie o di un figlio di un membro;

al soccorso o mantenimento dei membri, loro mogli o mariti, loro figli, fratelli, sorelle, nipoti in età avanzata o pendente malattie, in vedovanza, o per sussidio a membri o ad individui nominati dai membri di ogni età; e per qualunque oggetto che venisse permesso da uno dei principali Secretari di Stato di Sua Maestà e a cui pro credesse dover estendere i favori ed i poteri degli statuti. In conseguenza di questa provvisione gli oggetti a cui gli statuti riferivano da prima furono estesi di molto. Il Secretario di Stato ha autorizzata la loro estensione all' assistenza di membri obbligati a viaggiare in cerca di lavoro; ad accordare soccorso a membri in grandi bisogni, o soccorso e mantenimento in casi di storpiatura, cecità od altre disgrazie causate da accidenti; alla compra di carboni od altri articoli di necessità; ad accumulare a interesse pel vantaggio di un membro dell' eccesso di denaro rimasto dopo aver provveduto alla sua assicurazione; a concedere soccorsi in casi di naufragio, o di perdita o d'avarie sofferte da battelli, reti, ecc., e ad assicurare i membri contro le perdite incorse per malattie o morte di bestiame impiegato in commercio od agricoltura, e per formare dei club di operai. Tutti questi oggetti sono stati adottati, ed ora delle società sono in esistenza in diverse parti del regno per attivarne uno o più. Nel dicembre 1865 il Registratore di queste società distribuì 22,834 modelli di statistiche annuali dello stato generale dei fondi ed effetti delle società amichevoli, come pure un equal numero di statistiche di malattie e mortalità voluti dalle dette società secondo gli atti 18 e 19 Vittoria, c. 63, s. 45. Di queste relazioni annuali, 10,345 soltanto gli vennero rimandate fino al primo luglio 1866, e delle quinquennali solo 7,706; e di queste 170 non indicavano il nome della società, nè del luogo a cui apparteneva. Una penale non più grave che di 20s. è imposta agli impiegati che mancassero di rinviare i prospetti generali; ma per l' omissione del rinvio dei prospetti quinquennali di malattie e mortalità non v'è penale imposta. I 10,345 formulari rinviati portano il numero dei membri a 1,374,425 e il totale dei fondi a 5,362,028 L.

Società Co-operative.—Dalle statistiche compilate da 417 di queste società per uso del Registratore, secondo gli atti 25 e 26 Vittoria c. 87, per tutto l' anno 1865 risulta che—

Il numero dei membri era di	148,586
Numero di membri ammessi nell' anno	29,182
Numero di membri ritirati nell' anno	11,815
Somma ricevuta per azioni o creditate alle medesime dal principio della società	£ 1,017,106
Denaro ricevuto per azioni nell' anno	307,356
Somme ritirate da membri durante l' anno	180,812
Montare del capitale in azioni nel 31 dicembre 1865	761,313

Montare del capitale a prestanza . . .	112,733
Montare ricevuto in prestiti nell' anno . . .	34,631
Prestiti ripagati nell' anno . . .	19,101
Montare pagato come frutti durante l' anno . . .	33,686
Denaro pagato per compra di articoli nell' anno . . .	3,063,088
Denaro ricevuto per articoli venduti nell' anno . . .	3,337,837
Profitti realizzati durante l'anno . . .	279,226
Spese nell' anno in salari, affitti, tasse, in lavori, e miglioramenti accidentali . . .	190,538
Denaro depositato presso banchieri, tesorieri, e uffiziali in dicembre 1865 . . .	136,923
Valore totale dell' asse e proprietà delle società al 31 dicembre 1865 . . .	1,105,685
Totale de' debiti delle società ai 31 dicembre 1865 . . .	273,480

Delle indicate società assai poche però sono comprese sotto il nome di società co-operative applicate a lavori manuali, la maggiorità essendo in fatto co-operative depositi di drogherie ecc., onde distribuirle a prezzi di commercio all' ingrosso. Esse però presentano gran beneficio alle classi operaje, abilitandole ad ottenere a prezzi miti ciò che dovrebbero pagare molto più se obbligati venissero a comperare nei magazzini di dettaglio. Di più i pagamenti istantanei che sono richiesti da questi depositi educa ad abitudini di frugalità i compratori.

(f.) *Società di Prestiti*.—Dai resoconti che 856 di queste società fornirono al capo de' Registri, dietro l' atto 3 e 4 Vict. c. 110, per l' anno spirante ai 31 dicembre 1865, si riscontrava che—

La somma attualmente anticipata e pagata dai depositanti o azionisti era . . .	£ 253,523
Somme fuori in prestito ai 31 dicembre 1865 . . .	518,866
Circolazione dell' anno . . .	857,844
Domande di prestito dell' anno . . .	184,171
Numero di persone a cui si condettero prestiti . . .	170,318
Somma pagata per moduli di domande, e per ricerche nell' anno . . .	10,435
Somma sborsata per interessi dai debitori a mallevadori . . .	42,140
Guadagno complessivo da somme ricevute dai debitori, e da danaro incassata per moduli di domande e per richieste nell' anno . . .	58,509
Spese d' uffizio dell' anno . . .	21,345
Interessi pagati agli azionisti nello anno . . .	32,859
Netto profitto, dopo dedotti gl' interessi pagati agli azionisti, e le spese d' uffizio nell' anno . . .	6,391
Numero di citazioni emanate nello anno . . .	13,208

Numero di sequestri emanate nello anno . . .	2,101
Somma onde riavere la quale si emanarono le citazioni nell' anno . . .	31,586
Somma recuperata nell' anno . . .	23,991
Spese legali delle società nell' anno . . .	2,940
Spese legali sborsate dai debitori o mallevadori nell' anno . . .	2,390

(g.) *Società di beneficio per casamenti*.—Esistono queste società in molti luoghi del regno, ma non ci sono dati precisi di quanti membri ne facciano parte, nè ragguagli del loro operato; per altro si sa che esse contano molte migliaia di membri, e che i loro affari sono estesissimi.

(h.) *Società di terreni*.—Queste dapprima si stabilirono principalmente per un fine politico, quello, cioè, di far sì che i membri di tutte le classi, ed in ispecie del basso ceto, potessero senza eccessiva spesa procacciarsi la franchigia di possidenti per le contee. In oggi però lo scopo principale di queste società è quello di fornire alle dette classi i mezzi per l' acquisto assoluto di terreni, e per la fabbrica di casamenti su d' essi. Le società in primo luogo, comprano grandi tenute, che indi rivendono agl' individui membri e ben anche anticipano ai medesimi il denaro per fabbricarvi su. I valori anticipati e per le terre e per le fabbriche si rimborsano dai membri alle società, a rate fisse che s' estendono per lo più sino ad anni dieci.

In alcune di queste società, delle quali i membri debbono pur esserne azionisti, oltre agli altri vantaggi già accennati, essi dividono l' ordinario guadagno della compagnia. Non vi sono ragguagli esatti delle operazioni compiute da queste società, ma si può formare un' idea della loro importanza dalle cifre qui aggiunte tolte dall' ultima relazione emanata da una fra le maggiori, 'La società Conservativa de' Terreni':—

Numero totale d' azioni emesse dal settembre 1852 al settembre 1866 . . .	25,674
Valore de' terreni venduti dalla formazione della società sino al settembre 1866 . . .	£ 493,091

Le operazioni della 'Società nazionale di Possessioni' e della 'Compagnia Britannica de' Terreni' sono anche maggiori di quelle della 'Conservativa'.

Quello che più importa osservare si è che coll' aiuto di queste associazioni gli operai industriosi, in pochi anni, diventano, volendo, possidenti di pezzetti di terra con case di loro proprietà.

(i.) *Club (fratellanze) assemblee d' Operai*.—Si deve alla 'Unione dei Club ed Istituti degli Operai' lo stabilimento di circa 300, che contengono 60,000 membri, negli ultimi cinque anni. Quarant' uno di questi Club esistono nei distretti della capitale. L' Unione annua esser questo soltanto la primizia di quanto

PARTE II.—COLONIE E POSSESSIONI INGLESI.

Statistica della condizione delle Colonie Inglesi nel 1864.

Colonie e Dipendenze	Area	Popolazione	Finanza			Debito Pubblico*	Commercio			
			Entrata complessiva	Spesa complessiva	Navigazione		Importazioni, metalli preziosi inclusi		Esportazioni, metalli preziosi inclusi	
							Numero complessivo di Tonnellate registrate	Totale*	Dal Regno Unito	Totale*	Al Regno Unito
	Migliaia Quadrate	No.	£	£	£	Tonnellate	£	£	£	£
<i>In Europa.</i>										
Malta	115	*136,339	169	163	189	2,235	1,762	40	1,004	625
Gibilterra	1 $\frac{3}{4}$	*15,462	36	35	—	2,275	2,600	1,700	2,250	171
<i>In Asia.</i>										
India	1,004,616	143,271,210	44,613	44,982	98,515	4,116	50,108	23,214	66,896	44,971
Ceylan	24,709	1,892,540	868	1,843	350	1,070	5,527	1,652	3,112	2,015
Maurizio	708	310,050	638	602	600	558	2,583	825	2,250	1,089
Labuanno	45	2,373	8	8	—	21	84	—	48	—
Hongkong	29	119,321	133	159	—	2,046	mancano i dati		mancano i dati	
<i>In Africa.</i>										
Natale	14,397	152,704	152	119	100	64	592	441	220	187
Capo di Buona Speranza	104,931	267,096	588	634	715	541	2,493	1,777	2,614	1,626
Sta. Elena	47	6,860	23	23	—	136	123	55	27	25
Costa d' Oro	6,000	150,000	—	—	—	—	mancano i dati		mancano i dati	
Sierra Leone	468	41,497	49	51	2	98	190	140	202	24
Gambia	20	6,748	17	18	6	66	105	45	132	27
<i>In America</i>										
<i>America Settentrionale:</i>										
Canada	331,280	2,507,657	2,295	2,175	12,368	2,089	9,296	4,382	8,850	3,068
Nuovo Brunswick	27,037	252,047	214	176	2,767	1,412	1,864	750	1,053	569
Nova Scozia	18,670	30,857	200	199	969	1,630	2,521	1,082	1,435	66
Isola del Principe Edoardo	2,173	80,857	44	38	68	302	338	154	203	37
Terranuova	40,200	122,638	125	125	177	281	1,067	455	1,111	283
Colombia Inglese	200,000	11,816	104	117	164	108	500	—	1,219	—
Isola di Vancouver	13,000	23,000	71	74	40	232	743	292	80†	—
Bermuda	24	11,461	31	27	—	280	371	127	143	64
Ondura	13,500	25,635	31	28	22	84	291	196	373	218
<i>Indie Occidentali:</i>										
Baama	2,921	35,487	107	103	13	389	5,346	1,219	4,672	3,511
Isola Turco	—	4,372	13	13	—	101	70	13	54	2
Giammaico	6,400	441,255	309	315	804	284	1,143	628	947	813
Isole Vergini	57	6,051	2	2	4	8	8	—	12	—
San Cristoforo	103	24,440	19	21	—	50	189	60	125	103
Nevis	50	2,822	5	4	3	15	28	6	16	10
Antigua	183	36,412	33	36	20	43	178	70	79	64
Monerrato	47	7,645	4	4	5	10	18	—	19	14
Dominica	291	25,065	14	15	3	15	44	15	49	43
Sta. Lucia	250	26,705	13	13	18	20	90	31	111	101
San Vincenzo	131	31,755	20	20	3	31	136	54	156	143
Barbado	166	152,727	107	104	23	280	910	363	926	549
Granata	133	31,900	20	17	9	34	121	66	153	140
Tobago	97	15,410	8	10	4	11	50	17	64	57
Trinità	1,754	84,438	207	193	245	270	884	426	1,101	912
Guiana Inglese	76,000	148,026	311	270	594	317	1,509	888	1,845	1,589
Isole di Falkland	7,600	566	9	7	—	50	19	19	10	10
<i>In Australia.</i>										
Nuovo Galles Meridionale	323,437	358,278	1,985	2,327	6,073	1,254	9,386	3,856	8,117	2,559
Vittoria	86,831	541,800	2,800	2,883	8,444	1,262	14,975	7,899	13,898	5,300
Australia Meridionale	383,328	126,830	809	645	900	321	2,413	1,218	3,305	919
Australia Occidentale	978,000	15,691	72	71	2	94	169	110	112	45
Tasmania	26,215	89,977	335	319	530	248	908	348	975	421
Nuova Zelanda	106,259	98,971	1,381	1,757	1,300	800	7,000	2,700	3,500	1,500
Queensland	678,000	34,885	502	439	549	246	2,268	507	1,247	355

* La popolazione di Malta e di Gibilterra nella tavola antecedente non comprende i militari. Le cifre per finanza, debito, importazioni, ed esportazioni sono indicate in migliaia di lire sterline, e per navigazione in migliaia di tonnellate.

† Agli Stati Uniti soltanto.

essa spera d'operare in bene dell' operaio, ed asciugando le sorgenti di molti fra quei mali che molte altre benevoli società soltanto si sforzano di mitigare. L' oggetto dell' Unione è quello d' assistere gli operai nello stabilire de' Club e Istituti, ov' essi possano raccogliersi onde discorrere, trattar d' affari, istruirsi, e ad una volta trovar divertimenti e rinfreschi senza dipendere per questi dall' osteria.

Visto il gran progresso seguito nei costumi dell' alto e medio ceto nell' ultimo mezzo secolo, non pare irragionevole lo sperare che un corrispondente miglioramento abbia da svilupparsi nelle classi inferiori della società, e che questi Club sianò un cospicuo mezzo d' effettuare un tanto oggetto.

Di troppo difetterebbe questo abbozzo sulla condizione del Regno Unito se si passassero sotto silenzio le molteplici possessioni dipendenti dalla corona britannica. Molti sono i benefizi e gli utili che la terra madre ritrae dalle sue vaste colonie. Da un canto le aprono queste uno sfogo per la soprabbondante sua popolazione, e le somministrano materiali greggi tanto richiesti dalle fabbriche indigeni; dall' altro esse consumano infinite manifatture e prodotti inglesi.

In oltre di gran vantaggio si è per un popolo dedito tanto al commercio, siccome è l'inglese, il possesso in ogni punto del mondo, di porti ove il suo naviglio mercantile possa ricoverarsi in sicurtà dalle insorte burrasche, o trovar asilo e difesa contro il nemico in tempo di guerra.

Un altro, e non minimo bene che la Gran Bretagna ricava dalle sue possessioni coloniali è la diffusione mondiale della sua lingua, della sua religione o forma di governo. Da settentrione a mezzodì e da levante a ponente, lo scettro inglese domina un impero nel quale ben può dirsi che il sole non tramonti mai, e che annovera cento cinquanta milioni di sudditi, tutti più o meno sottoposti alle leggi, ai costumi e all' influsso inglese.

I primari prodotti coloniali delle più importanti colonie sono:—

India. Caffè, cotone greggio, tinte, cuoi, giutta, olii, opio, riso, salnitro, semenze, scialli di cashmere, seta greggia, spezierie, legnami da fabbrica.—*Ceylan.* Cannella, caffè, olio di coco.—*Maurizio.* Rum, zucchero.

Natal. Cuoia, avorio e lana.—*Capo di buona speranza.* Minerale di rame, pelli, vino e lana.—*Canada.* Animali, prodotti animali, prodotti agricoli, pesce, potasse e legname.—*Isola Principe Eduardo.* Pesce, grano, e bestiame grosso.—*Terranuova.* Baccalà, olii, e pelli di foca.—*Giammaica.* Caffè, zenzero, pepe garofanato, rum, zucchero e legno indico.—*Barbado.* Pesce, melasso, riso, rum e zucchero.—*Trinità.* Cacao, melasso, rum e zucchero.—*Giamaica inglese.* Melasso, rum e zucchero.

Nuova Galles meridionale. Oro, cuoia, sego, lana.—*Vittoria.* Oro, sego e lana.—*Australia meridionale.* Rame, grano, oro e lana.—*Nuova Zelanda.* Oro e lana.—*Queensland.* Oro, cuoia, sego e lana.

NOTE STATISTICHE SULLE INDUSTRIE ED IL COMMERCIO DEL REGNO UNITO.

POSTI IN ORDINE SECONDO I GRUPPI E LE CLASSI ADOTTATE PER L' ESPOSIZIONE UNIVERSALE DI PARIGI NEL 1867.

GRUPPO II.

(CLASSI VI.-XIII.)

APPARATO ED APPLICAZIONE DELLE ARTI LIBERALI.

Classe VI.

LA TIPOGRAFIA ED I LIBRI.

L'ARTE della tipografia è stata portata a gran perfezione in Inghilterra, e forse una delle migliori prove del suo sviluppo si trova nella produzione quotidiana di giornali, come il 'Times' ed altri principali. Il fatto semplice di poter comporre e stampare molte migliaia d' esemplari di tali giornali in poche ore, basta per mostrare la posizione avanzata del negozio della stampa in Inghilterra.

Tra le cause che hanno condotto recentemente alla perfezione della tipografia in questo paese, le più conspicue sono, l' annullamento del diritto del bollo sui giornali ed anche del diritto d' imposta sulla carta. L' abolizione di questi dazi permetteva ai nuovi giornali, già stabiliti, d' essere prodotti e venduti per un penny, e da ciò la conseguenza che mentre i giornali sono stati messi a portata della massa della popolazione, grandi miglioramenti s' introdussero nei diversi processi necessarj alla loro produzione. L' educazione migliorata nelle diverse classi della società ha anche cagionata una richiesta grande di libri stampati; e senza sprezzare le opere d' una classe superiore, la produzione immensa negli anni recenti di libri stampati a buon mercato, ad oggetto d' educazione e di divertimento è superiore ad ogni elogio. Le arti dell' intaglio e della cromolitografia hanno anche attenuato una straordinaria perfezione, come si può vedere nell' esaminare i saggi esposti.

Il numero delle persone impiegate nelle diverse ramificazioni del commercio tipografico, secondo il censo del 1861, è:—

In Inghilterra e la provincia di Galles .	30,590
Scozia	4,470
Irlanda	2,845
Totale	37,905

Devonsi dedurre da questo numero 13,937 persone impiegate in Londra.

In Londra la graduazione della paga dei stampatori è fissata come segue:—

Compositori . . .	} 36s. per la settimana di 60 ore.
Torcolieri . . .	
Macchinisti . . .	

Con una rata di 3d. di più per ora di lavoro dopo il tempo stabilito, fra le ore 9 p.m. sino alle 8 p.m. per ogni giorno di lavoro. Il lavoro della domenica è pagato a ragione di 6d. di più per ora, ma in nessun caso il lavorante deve ricevere meno di 2s. 6d. di più.

In molte grandi stamperie, il lavoro dei libri è pagato a tanto per pezzo, e non è generalmente eseguito al salario ordinario dello stabilimento. I compositori impiegati in questa maniera possono guadagnare da 20s. a 30s. per settimana, secondo il lavoro, l' abilità, e l' industria del lavorante.

Il lavoro di giornali si fa a un tanto per pezzo nelle ore irregolari.

La quantità media dei salari pagati in Edimburgo nell' anno 1866 era:—

	s.	s.	} Per settimana di 57 ore.
Compositori . . .	20	a 40	
Torcolieri . . .	26	„ 28	
Apprendisti . . .	3	„ 20	

Il valore dei libri e delle stampe, ecc., importati nella Gran Bretagna nell' anno che finiva il 30 giugno 1864 era:—

	Esportati £	Importati £
Libri	119,486	511,388
Stampe, intagli, ecc. .	36,525	30,936

Non esiste rapporto del numero dei libri prodotti ogni anno. Il numero dei giornali registrati ed anche scritti periodici in ogni divisione del regno Britannico nell' anno che finì il 30 giugno 1864 fu:—

In Inghilterra colla provincia di Galles	1,367
Scozia	133
Irlanda	157
Totale	1,657

	1862	1863	1864	1865
	Tons	Tons	Tons	Tons
Stracci, tela, e } cotone	21,966	25,287	23,732	18,273
Esparto e altre } fibre vegetali . .	878	19,326	43,430	52,324
Funi vecchie, ecc.	932	736	528	463
Polpa	166	233	156	94
Totale importati	23,942	45,528	67,819	71,154
Esportati dopo .	3,513	1,510	243	1,505
Resta per il con- } sumo	20,429	44,072	67,576	69,649

Da questa tavola si rileva, che l' aumento sensibile è stato cagionato dai maggiori arrivi di esparto, proveniente dalla Spagna. Si usa per fabbricare la carta ordinaria e quella da stampare, per la quale c' è stata recentemente una richiesta grande.

3. Non esiste ragguaglio del numero degli impiegati nel mestiere della carta a questo tempo. Secondo il censo di 1861 era:—

	Uomini	Donne	Totale
Nell' Inghilterra e la provincia di Galles	7,746	5,611	13,357
Nella Scozia . . .	1,648	2,773	4,421
Nell' Irlanda . . .	289	113	402
Totale . . .	9,683	8,497	15,424

Il numero di legatori e piegatori di libri all' epoca suddetta fu:—

	Uomini	Donne	Totale
Nell' Inghilterra e la provincia di Galles	6,556	5,611	11,920
Nella Scozia . . .	1,176	1,194	2,370
Nell' Irlanda . . .	448	686	1,134
Totale . . .	8,180	7,244	15,424

Una grande proporzione del mestiere di legatura è esercitata in Londra. Nel 1861, 3,691 uomini e 4,063 donne erano impiegati così in Londra. Bisogna rammentarsi che ambedue questi mestieri sono aumentati da allora in qua.

Secondo un rapporto fornito al Board of Trade nel 1866 dalla Camera Commerciale di Edimburgo, la somma media dei salary pagati ai braccianti nella manifattura di carta in quel distretto fu:—

	Per settimana	
	s.	d.
Macchinatori . . .	20	à 22 0
Macchinisti . . .	17	„ 20 0
Compitori . . .	12	„ 18 0
Imbiancatori . . .	16	„ 20 0
Tagliatori di cenci . .	13	„ 16 0
Incollatori . . .	17	„ 18 6
Seccatori . . .	15	„ 16 6
Tagliatori di carta . .	15	„ 18 0
Costruttori di macchina .	22	„ 28 0
Direttori dei fuochi . .	15	„ 18 0
Lavoranti . . .	11	„ 17 0

Le ore di lavoro 10 a 12 per giorno.

Non esiste rapporto della ragione dei salary pagati nelle fabbriche di carta nei contorni di Londra; la proporzione dei salary varia considerabilmente, ma quasi sempre i prezzi sono più alti che quelli citati di sopra.

5. Un grande aumento nella quantità di carta importata ha avuto luogo dall' anno 1860 in poi, il quale è stato cagionato in gran parte dall' annullamento del dazio sulla carta:—

		Carta forestiera (eccetto paramenti da muro)		
		Importati	Esportati	Restante
Quantità	1860 .	cwts. 42,446	cwts. 9,217	cwts. 33,229
	1865 .	239,707	24,537	215,170
Valore	1860 .	£ 128,383	£ 25,995	£ 102,388
	1865 .	494,222	57,447	436,745

La quantità e il valore della carta inglese (eccetto paramenti da muro) esportata, al stesso tempo fu:—

			cwts.
Quantità	1860 .	„	112,514
	1865 .	„	141,075
Valore .	1860 .	£	450,589
	1865 .	„	447,741

Confrontando questi rapporti, si vede che la qualità della carta importata è molto più ordinaria che quella esportata.

La quantità dei stracci inglesi, e altra roba per fabbricare la carta, esportata nell' anno 1865, montò a 6,704 tons.

Il valore della cartoleria inglese (altra che carta) esportata dall' Inghilterra, durante i cinque anni 1860 a 1865 fu:—

	£
1861	287,000
1862	285,000
1863	342,000
1864	260,000
1865	405,000

7. L' uso del vapore per forza motrice è divenuto quasi universale in Inghilterra; e benché il prezzo del lavoro sia più alto in Inghilterra che nei paesi forestieri, nondimeno a causa dell' abilità e della cura dei lavoranti inglesi, ed anche della grande superiorità delle macchine usate, è indeciso se il costo della fabbrica di carta nell' Inghilterra non sia tanto basso quanto negli altri paesi.

8. Il Sig. Richardson, di Newcastle, dice che i miglioramenti principali nella manifattura di carta, in quest' ultimi anni sono le particolarità e l'efficienza delle macchine, per il quale si fa una quantità di carta molto più grande colla medesima macchina che se ne faceva prima; e nel maneggio superiore dei processi chimici, pel qual mezzo un materiale che prima era intieramente inutile, è ora fabbricato in carta ordinaria per le botteghe, ed i stracci inferiori sono ripuliti e bianchiti e trasformati in buona carta bianca, che prima furono fabbricati in carta ordinaria. Quasi tutta la carta per i giornali contiene una porzione d' esparto; alcune avendo solamente la quarta parte di stracci.

Quando fu abolito il diritto del bollo sui giornali, una grande classe di giornali di buon mercato sorgeva e vi succedeva un grande richiesta per carta a buon mercato. Questa richiesta fu fornita in parte per fabbricare la carta coll' esparto come già dette, ed in parte per importare carta a buon mercato dagli altri

paesi. Il giuri all'Esposizione di Londra nel 1862 osservando una tendenza per fabbricare carta di qualità inferiore, con saggezza alzava la voce contra quell' uso per lavori che dovevano durare per vari anni; ma solamente per bisogni presenti la provvista di carta a buon mercato è un vantaggio inestimabile alla comunità generale.

Un grande miglioramento è stato fatto in questi ultimi anni nella legatura, specialmente nell'applicazione di colore ed ornamento alla legatura a buon mercato. Tanto grande è stata l'estensione di questo negozio, che l'introduzione del meccanismo per lavori in rilievo e per ornamenti senza doratura fu necessitata finchè il legatore poteva fornire ai bisogni aumentati del mestiere.

Classe VIII.

**APPLICAZIONE DEL DISEGNO E DEL MODEL-
LARE ALL' ARTE ORDINARIE.**

Benchè non esista rapporto del progresso ottenuto negl' ultimi anni nelle diverse ramificazioni di mestieri che sono compresi in questa classe, si può asserire generalmente, che un miglioramento considerevole si è fatto osservare nello stile dei disegni adattati alle manifatture, ed anche un più buon gusto nell' arte di formare, di stampare, ed intagliare i sigilli.

Siccome i disegni per le manifatture sono per la più gran parte fatti segretamente, i soli mezzi per verificare un miglioramento attuale, sono le esposizioni pubbliche; sarà dunque dovere dei giurati nelle diverse classi di manifatture all' Esposizione attuale di decidere quanto è l' avanzamento che è stato fatto dai disegnatori inglesi, dall' ultima Esposizione di Parigi in 1855 in poi. Speriamo che in quelle decisioni il Dipartimento delle Scienze e delle Arti, si troverà ricompensata per le fatiche che per tanti anni si è dato, cioè nell' applicazione estesa delle belle arti a tutte le ramificazioni di manifatture nazionali.

Classe IX.

PROVE DI FOTOGRAFIA, E APPARATO.

Considerata come un' industria produttiva, e senza riguardare la sua importanza come arte, la fotografia nelle diverse divisioni del negozio impiega qualche migliaio di persone.

Non accade nello scopo di queste notizie di dare una narrazione dell' invenzione, e del suo sviluppo rapido, ma come fu narrato dal relatore della fotografia, ecc. all' Esposizione di Londra nel 1862, 'sarà sufficiente di dire che non c' è quasi nessuna divisione d' arte, della scienza, dell' economica, in somma, degli interessi umani nella loro più grande estensione nella quale le applicazioni di questa arte non siano state utilizzate.'

Non esistono statistiche del numero delle persone ora impiegate nelle diverse classi del mestiere della fotografia; ma secondo il censo di 1861, 2,957 erano impiegati come artisti di fotografia in quell' epoca.

Il numero delle persone impiegate nelle diverse classi di questo mestiere (eccetto i braccianti) è il seguente :—

Artisti di fotografia	284
Fabbricanti d' apparato	38
Fabbricanti d' album	14
Fabbricanti di chimici fotografici	17
Disegnatori, montatori	6
Fabbricanti di carta	15
Stampatori	7
Pubblicatori	16
Negozianti in materiale fotografico	28

Benchè i giurati sulla fotografia all' Esposizione di Londra credevano che un progresso grande fu fatto dall'Esposizione del 1851 in poi, nondimeno consideravano l'arte come capace d'arrivare ad un grado assai più elevato, e pensavano che alla prossima Esposizione Internazionale si vedrebbero risultati tali che quelli ora nominati 'mostrebbero una povera proporzione di bellezza, grandezza, o d' importanza.'

Classe X.

ISTRUMENTI DI MUSICA.

La fabbricazione d'istrumenti di musica forma un mestiere estensivo nella Gran Bretagna. Le specialità principali d' istrumenti sono, organi, pianoforti, arpe ed istrumenti per banda militare, fra i quali i pianoforti hanno la più gran importanza. I pianoforti fabbricati in Londra sono stati celebri da lungo tempo per la loro eccellenza di suono, ed anche per la superiorità del lavoro. I metodi migliorati della costruzione addottati recentemente dai fabbricanti d'organi inglesi hanno assicurato per questi istrumenti una riputazione grande in Inghilterra ed anche in paesi forestieri.

Non esistono statistiche precise del numero totale degl' impiegati nella manifattura delle diverse specie di strumenti musicali nella Gran Bretagna. Nella tavola seguente, mostrando il valore di questi articoli importati fra gli anni 1861 e 1865, si vede che la produzione nostrale non basta per soddisfare alle domande :—

Valore degl' Istrumenti musicali, di diverse specie, importati nell' Inghilterra.

Anni	Pianoforti	Armoniche e Serafine	Cassettine da Musica	Altre Specie	Totale
	£	£	£	£	£
1861	24,542	33,791	13,774	91,271	163,558
1862	43,343	53,681	13,494	80,388	190,906
1863	97,378	18,372	12,495	80,943	209,188
1864	111,234	15,545	17,017	80,452	224,249
1865	66,702	68,313	30,384	78,414	243,813

I pianoforti e armonium importati vengono quasi sempre dalla Francia.

Il numero dei fabbricanti d'istrumenti musicali (eccettuato lavoranti) è come segue:—

Specie d' Istrumenti	No. dei Fabbricanti
Fabbricanti di concertine	11
Tamburri	9
Flauti e flageoletti	14
Chitarre	4
Armoniche	1
Armonium	28
Arpe	4
Corne, trombe, corni da caccia	7
Militari	10
Serafine	3
Violini	8
Archì	8
Violoncelli	2
Cassettini musicali	5
Pianoforti, ecc.	285
Organi	43
Fabbricanti di corde	17
Istrumenti varj	47

Il valore degl' istrumenti musicali di manifattura inglese esportati fra gli anni 1861 e 1865 fu:—

Anni	Pianoforti	Altre Specie	Totale
	£	£	£
1861	non rapportati	non rapportati	147,144
1862	82,615	69,155	151,770
1863	112,821	53,972	166,793
1864	107,871	58,980	167,851
1865	93,071	59,757	152,828

Classe XI.

ISTRUMENTI ED APPARATI DI CHIRURGIA E DI MEDICINA.

Benchè gli articoli compresi in questa classe non rappresentino un lavoro estensivo, nondimeno hanno un valore che non può essere stimato a ragione di danaro. Fra le arti non ve n' è una più nobile di quella del chirurgo, conseguentemente gli istrumenti appartenenti alla sua professione hanno la loro parte d'onore.

Quasi tutti gli istrumenti di chirurgia sono di manifattura nostrale, ed a cagione della differenza di cura c' è pochissimo cambio negl' articoli di questa classe fra la Gran Brettagna ed altri paesi. La più gran parte degli istrumenti chirurgici inglesi si fanno a Sheffield, ma le produzioni delle fabbriche di Londra sono considerate come superiori a qualunq' altra fabbricazione del mondo. Il numero dei fabbricanti d'istrumenti di chirurgia in Londra è 95, fabbricanti di scatole per gl'istrumenti di chirurgia 5, fabbricanti di fascie di chirurgia 25. Il valore degl'istrumenti di chirurgia, ed anatomia, importati nell' anno 1865 fu 566£., e di quelli esportati 12,752£.

Classe XII.

ISTRUMENTI DI MATEMATICA ED APPARATI PER AMMAESTRARE LA SCIENZA.

La manifattura degli articoli compresi in questa classe è grandissima, ma nella mancanza di statistiche industriali è impossibile di sapere lo stato preciso delle differenti divisioni di questo negozio nel Regno della Gran Brettagna.

Il numero degli impiegati nel suddetto negozio in Londra (escludendo gli operanti) è come segue:—

Lavoratori d'istrumenti di matematica	72
Manifattori di scatole	7
„ d'istrumenti nautici	32
„ „ matematica-fisici }	78
Ottici	204

Aggiunto al commercio inglese vi è un negozio forestiero d'istrumenti scientifici. Il valore di cotesti istrumenti ed apparati importati, e d' articoli inglesi esportati dal Regno durante l' anno 1865 era:—

	Importati	Esportati
	£	£
1865	14,224	71,058

Classe XIII.

CARTE ED APPARATI DI GEOGRAFIA E COSMOGRAFIA.

La opere della più grande importanza in questa classe sono le carte topografiche e geologiche fatte dal Genio Militare. Le prime sono costrutte a tre scale, quella disegnata alla scala di un dito (1 inch) per miglio essendo una buonissima carta del paese. Una porzione della carta di geologia del Regno, quando fu esposta a Parigi nel 1855, fu dichiarata dai conoscenti capaci essere senza paragone. Dopo il 1855 alcuni dei distretti minerali più importanti sono stati misurati, e le carte appartenendoli finite. Le carte per le provincie settentrionali dell' Inghilterra e per l' Irlanda sono disegnate alla scala di sei dita (6 inches) per miglio; più della metà della superficie dell' Inghilterra è già stata misurata, onde riguardando la natura dell' opera, si sta facendo ogni anno gran progresso.

Non vi sono mezzi di sapere il valore e l' ampiezza del sopradetto negozio, ma è di grandissima importanza e le opere prodotte sono della prima qualità.

Il numero degl' impiegati nel suddetto negozio (meno i braccianti) in Londra ascende ora a:—

Venditori e pubblicatori di carte di geografia	24
Disegnatori, coloritori, e montatori	44
Intagliatori	18

Il valore delle carte esportate nell' anno 1865 montò a lire sterline 6,571.

GRUPPO III.

(CLASSI XIV.-XXVI.)

MOBIGLIA ED ALTRI OGGETTI PER USO NELLE ABITAZIONI.

Classe XIV.

MOBIGLIA DI FANTASIA.

Nessun negozio ha più profitato delle esposizioni internazionali come quello della mobiglia di fantasia. Dal principio del secolo insino all'anno 1851 pochissimo progresso fu fatto nella fabbricazione del mobigliar di casa nella Gran Bretagna, ma dopo quel tempo una gran miglioramento s'è osservata, non soltanto circa all'economia della produzione, ma anche nel disegno e nell'ornamento, e nella più rigorosa adattamento degli articoli agli usi per i quali sono destinati. Non bisogna che una piccola occhiata alla maniera domestica di vivere al presente, per vedere il gran cambiamento ch'è stato fatto durante dieci o quindici anni nell'abbellimento interno delle dimore d'ordine nobile e di mezzo grado, ed il progredimento dell'educazione artistica, menerà a una più grande produzione e stimolazione degli articoli combinando le tre qualità necessarie di adattamento all'uso, bellezza di disegno e d'ornamento, e perfezione di lavoro.

Il numero dei fabbricanti impiegati in Londra nelle differenti ramificazioni del negozio di mobiglia di fantasia (meno i braccianti), è come segue:—

Ebanisti	812
Tapezzieri	486
Intagliatori e doratori	342
Lustratori	142
Specchiaj	61
Stagnatori di specchj	24
Intagliatori, intarsiatori e lineatori	108
Fabbricanti di letti di legno	43
Fabbricanti di letti di ferro	44
Fabbricanti di seggiole, canapé, e sgabelli	252

Il valore di legname da mobiglia e mercanzia d'ebanista importati nella Gran Bretagna nell'anno 1865 montò a 128,925£., e la mobiglia inglese, e mercanzia d'ebanista esportata a 289,887£.

Classe XV.

TAPEZZERIA E LAVORO DECORATIVO.

Il progresso di cui abbiamo parlato nella manifattura degli articoli nell'antecedente classe si è esteso necessariamente agli oggetti compresi in questa classe. La ricchezza aumentata del mezzo ceto della comunità è stata occasione che sia fatta una più grande chiesta per ogni specie di lavoro decorativo negli apparecchi di casa. In quanto alla mobiglia di chiesa, si è notato una gran miglioramento, il rinascimento, negli anni recenti, del antico stile d'architettura necessitando una più grande quantità d'abbellimento interno negli edifizj. La fabbrica principale di oggetti formati è quella di carta- pesta ed è condotta principalmente a Birmingham, la quale produce molti articoli di mobiglia decorativa e da impiego a qualche centinaie di persone. Il prezzo medio del salario guadagnato, è, per il bracciante ordinario, da 10s. a 16s. per settimana; e per artisti decorativi, da 30s. a 50s. Si dice che questi artisti hanno ottenuti grandissimo vantaggio dall'istruzione fornita dalla scuola locale artistica di Birmingham.

Classe XVI.

CRISTALLO, VETRO DI FANTASIA, E VETRO COLORITO.

1. Le qualità principali di vetro fabbricato nella Gran Bretagna sono, cristallo, cristallo di Boemia, vetro ordinario, e vetro inglese. Le fabbriche principali di vetro, sono a St. Helens in Lancashire; ma ci sono anche delle fabbriche grandissime in altre provincie, specialmente quelle dei Signori Chance di Birmingham e dei Signori Hartley di Sunderland. Il cristallo inglese si fa anche in Londra. Il negozio del vetro da bottiglia, condotto principalmente nei contorni di Newcastle, è grandissimo. Il vetro colorito o dipinto è anche fabbricato in

Londra, a Sunderland ed a Birmingham. Il vetro per gli ottici, benchè necessariamente non forma una ramificazione grande del negozio, è fabbricato nella Gran Bretagna; e le produzioni dei Signori Chance di Birmingham per il vetro da fanali, sono ben conosciute per tutto il mondo scientifico.

Benchè la fabbricazione di questo bel materiale costituisca ora uno dei prodotti principali di questo paese, è solamente nei venti anni passati che ha fatto un tale sviluppo. Fino all'anno 1845, la tassa eccessiva imposta sulla fabbrica, e le regolazioni seccanti necessitate per la raccolta di questi dazi, ritardò interamente il progresso, in fatto, fra gli anni 1789 e 1844 la quantità di vetro fabbricato e ritenuto per la consumazione in vece di avanzare a pari passo coll' aumento della popolazione, piuttosto retrocedeva. Dopo l' annullamento del dazio sul vetro l' estensione del mestiere è stato grandissimo, e l' abolizione della tassa sulle finestre nel 1851 ha anche più vantaggiato l' arte vetraria in questo paese.

2. I materiali greggi usati nel mestiere della vetraria sono quasi tutti ottenuti in questo paese, sebbene in qualche parte la sabbia di Fontainebleau è usata.

3. Non esistono statistiche ufficiali del numero degli impiegati nel negozio di vetraria inglese d' una data più recente che 1861, nel quale anno il numero degl' impiegati fu come segue:—

	Uomini	Donne	Totale
In Inghilterra e la provincia di Galles . . .	13,809	1,237	15,046
In Scozia . . .	1,189	28	1,217
In Irlanda . . .	231	31	262
Totale . . .	15,229	1,296	16,525

L' estratto seguente, tolto da uno rapporto del Signor Chance all' Associazione Britannica a Birmingham nel 1865, farà vedere l' importanza delle diverse divisioni di questo lavoro presentemente. Il prodotto d' ogni settimana è di circa 100,000 piedi. Ci sono 7 fabbricanti di cristallo di Boemia e vetro ordinario, 3 di questi fabbricanti fanno 75 per cento della quantità in vendita. Il numero dei lavoratori in queste 3 fabbriche è 2,500, e la quantità di cristallo prodotto 17,000 tons. Non esistono statistiche perfette della produzione di cristallo inglese, la produzione annuale di questa qualità di vetro, nei territori del Tyne e del Wear è stimata a 10,000,000 libbre. La produzione di Birmingham è circa 5,000,000, e quella di Stourbridge circa 3,500,000 libbre ogni anno. La fabbrica di bottiglie nel distretto del Tyne e Wear, nell' anno 1862 il Signor Swinburne dice essere stata di circa 4,230,000 dozzine.

4. La quantità media del soldo pagato a Birmingham nel 1866 nella fabbrica di cristallo inglese, e articoli per uso domestico, fu:—

Agli Uomini.

Per settimana di 45 ore:—

1 ^{ma} classe . . .	s. 48	d. 0 a 49	0
2 ^{da} classe . . .	42	0 „	44 6
3 ^{za} classe . . .	30	0 „	40 6
4 ^{ta} classe . . .	22	0 „	34 0
5 ^{ta} classe . . .	10	0 „	31 0
6 ^{ta} classe . . .	21	8	

Per settimana di 55 a 60 ore:

Tagliatori di cristallo . . .	24	0 „	32 0
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Per settimana di 56 ore:

Cardatori, mischiatori, imballatori, ecc. . .	25	0	
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Le donne impiegate come imballatrici, mischiatrici, ecc., 10s. per settimana di 50 ore.

In alcune ramificazioni del negozio della vetraria le relazioni fra i padroni ed i lavoratori, come anche le abitudini dei lavoratori stessi, hanno bisogno di grande ammiiglioramento. Il Signor Swinburne ci fa sapere che le relazioni tra padroni e lavoratori nelle fabbriche di cristallo inglese, cristallo soffiato e vetro di bottiglia non sono altre che una guerra continua. Oltrechè per motivo d' un buonamano eccesso della paga, chiamato 'denaro per bere' (il quale in fatto è ordinariamente dissipato nel comprare bevande spiritose), una irregolarità generale si fa osservare nelle abitudini dei lavoratori, la quale, per la più gran parte, termina nell' ubbriachezza stabilita. In altre parti si dice che i lavoratori hanno gran intelligenza ed educazione e si giovano liberamente delle diverse istituzioni stabilite pel miglioramento delle classi dei lavoratori.

5. La tavola seguente fa vedere le differenti specie di vetro importato nella Gran Bretagna nell' anno 1865:—

	Quantità	Valore
	Quintali	£
Vetro da finestra (eccettuato cristallo)	264,056	211,246
Cristallo inglese, rotato, colorato, adornato	32,961	172,405
Cristallo inglese, semplice, (comprese bottiglie)	23,039	32,254
Cristallo	28,631	133,613
Vetro argentato, e da specchio	1,699	10,700
Bottiglie, vetro ordinario	17,113	8,984
Manifatture non ancor notate	12,650	60,773
	380,149	629,975
	Libbre	
Margheritine, e cannellini di vetro	3,365,221	178,310

Il vetro da finestra, ed il cristallo inglese importati vengono principalmente dal Belgio, e da Amburgo; ma il cristallo ed il vetro argentato di Francia, e di Belgio. La ri-esportazione di vetro da finestra e margheritine nel medesimo anno fu considerabile, essendo 37,842 cwts., e 2,057,000 lbs. relativamente.

6. Una piccola proporzione solamente dell' esportazione di vetro Britannico (eccetto bottiglie) si fa cogli Stati Europei, la più gran parte dell' esportazione essendo fatta per gli Stati Uniti e le colonie Britanniche. Per

causa della qualità costosa di casse necessarie alla sicurezza nel viaggio, per i danni nella sballatura, di più il trasporto ed altre spese di viaggio, qualunque addizione fatta al prezzo come una tassa d' importazione diviene un vero ostacolo al negozio di questi oggetti; e come i dritti d' entrata imposti nell' Europa sono considerabili, la mancanza di negozio in questa parte del mondo si spiega tanto più facilmente in quei paesi dove la paga è bassa, e per questa ragione i fabbricanti nostrali possono vendere a buon mercato.

Nondimeno che diversi mercati sono per questa ragione chiusi ai fabbricanti di vetro inglesi, si vedrà in esaminando il rapporto seguente, che l' esportazione inglese ha fatto gran progresso nei 15 anni passati:—

L'Anno	Cristallo Inglese	Cristallo da finestra	Bottiglie Ordinarie	Cristallo
Quantità				
	cwts.	cwts.	cwts.	cwts.
1851	25,902	16,459	329,025	
1855	39,295	21,537	513,140	
1860	79,544	33,408	629,511	
1865	99,314	50,955	622,496	
Valore				
	£	£	£	£
1851	110,666	22,223	174,318	20,743
1855	141,890	33,659	279,471	52,312
1860	222,380	44,063	324,189	62,566
1865	302,105	60,857	310,245	71,387

7. La porzione più grande del cristallo è fatto a mano coll' assistenza di macchine; il vetro pressato si fa principalmente a macchina. I processi di rotare ed affilare, ecc., nella fabbrica del cristallo inglese, si fa generalmente per mezzo di vapore.

8. Il Sig. Swinburne rapporta che 'in quanto ai processi della vetraria generalmente, non si può negare che vi è gran bisogno di miglioramento.' Nondimeno molto progresso è stato fatto nelle diverse ramificazioni del negozio; specialmente fra le quali si osserva l' accrescimento nella grandezza dei cristalli ed anche del vetro ordinario, ecc., il miglioramento nel colore del vetro, ed anche il progresso nella fabbrica di vetro pressato. L' introduzione di oggetti di quest' ultima specie ha abbassato talmente il prezzo del cristallo inglese, che le persone le più povere possono avere belli articoli per uso domestico, che, pochi anni fa, gli sarebbe stato impossibile di possedere.

Il progresso del commercio della vetreria deve essere attribuito, come già detto, all' annullamento dei dazj che in passato impedirono il suo progresso. Dopo l' annullamento di queste tasse, il vetro abbassò in prezzo immensamente, e si verificò un grande aumento nello smercio. I prezzi seguenti delle specie principali di vetro, avanti e dopo il levare la tassa (che furono forniti dal Sig. Chance) dimostrano il vantaggio che ha prodotto l' annullamento sull' industria del vetro in generale. Un specchio di cristallo 50 × 40 inches nel 1844

costava 10*l.*, nel 1865 meno che la metà. Cristallo di Boemia di buona qualità nel 1844 costava 12*l.*, per cesto, nel 1865 2*l.* 8*s.* Il vetro ordinario nel 1844 1*s.* 2*d.*, per piede nel 1865 2*d.* Se la tassa sul vetro esisteva nel 1851, un Palazzo di Cristallo sarebbe stato quasi una impossibilità; d' altra parte l' abrogazione del dazio sulle finestre ha menato ad un uso più esteso di vetro negli edifizj di ogni specie, e ha materialmente congiunto al conforto e alla salute della popolazione.

In quanto all' applicazione delle belle arti alle manifatture di vetro, il giuri all' Esposizione Internazionale del 1862 rapportò che l' avanzamento principale fu nel vetro intagliato. Osservarono anche particolarmente il progresso fatto nella forma degl' articoli di uso generale, che riferivano in gran parte al gusto nutrito per le scuole di disegno per tutto il paese, alle energie di molti fabbricanti nel incoraggiare una migliore apprezzazione di buona forma nei compratori, ed anche all' avanzamento generale della conoscenza d' arte nel popolo, una gran parte dei quale hanno attribuito all' influenza dell' esposizione nazionali e internazionali, e specialmente all' ultima, nella quale gli espositori imparano per la loro emulazione nell' arti di pace.

Classe XVII.

PORCELLANA, TERRAGLIA, ED ALTRI VASELLAMI DI FANTASIA.

1. La manifattura di terraglia, che ora è uno dei prodotti principali del paese, è stata continuata in Staffordshire per più di due secoli. L' Inghilterra, al contrario di molte altre nazioni, non ha manifatture appartenendo al governo per la produzione e sviluppo dell' arte ceramica, ed il commercio è per conseguenza abbandonato interamente allo sforzo dell' interpresia particolare. La più gran manifattura di porcellana è in Staffordshire, con ramificazioni a Glasgow, Worcester, Newcastle e Lambeth. In Staffordshire fanno quasi tutte le qualità di terraglia; i prodotti di Worcester sono generalmente di una gran finezza; quelle di Newcastle di seconda qualità; e in Lambeth si vendono principalmente vasellami grossi, bottiglie e vasi di terra, tegghie, tubi, ecc. Vi è anche una gran manifattura di vasellami di argilla che resiste al fuoco che si fabbrica in gran quantità a Newcastle e Stourbridge.

2. Le materie grezze adoperate nella manifattura di porcellana si trovano principalmente nelle provincie di Dorset, Devon, e Cornwall. I rapporti ufficiali del 1865 attestano che la produzione d' argilla e terra da far porcellana ammontò in quell' anno a 374,358 tons. 751,566 tons d' argilla da resistere al fuoco furono scavate nelle provincie di Stafford; York, Derby, ecc. Si dice che la quantità d' argilla prepa-

rata, consumata annualmente nelle fabbriche di Staffordshire, è circa 160,000 tonnellate (tons).

In aggiunto al già detto sull' argilla, il Sig. Coghill ci dà il rapporto seguente degli altri materiali usati nella provincia di Staffordshire. 'La consumazione annuale di carbone nella fabbrica di terraglia può essere fissata a 450,000 tonnellate. Per colorire l' argilla e stampare la mercanzia, usano circa 67,000 libbre di ossido di cobalto, e circa 1,100 tons di borace e ossido boraceo per la lustratura, e 12,000 oncie d' oro sono necessarie per dorare ed abbellire la medesima. La quantità d' osso calcinato consumata nella fabbrica di terraglia è circa 4,500 tonnellate, e viene principalmente dall' America Meridionale.

3. Il numero delle persone segnati nel censo come impiegati nelle fabbriche di terraglia e porcellana della Gran Bretagna nell' anno 1861 era:—

	Uomini	Donne	Totale
In Inghilterra e la Galles	26,138	11,934	38,072
Scozia	1,922	595	2,517
Irlanda	101	7	108
Totale	28,161	12,536	40,697

Vi sono anche 3,471 uomini e 1,115 donne impiegati nella fabbrica da pipe da fumare nello stesso anno.

Il numero degli impiegati nelle fabbriche di terraglia in Staffordshire, come da resoconto del Signor Coghill, fu nell' anno 1864, 27,878, del quale 10,598 donne.

4. Il valore medio dei salary pagati ai braccianti nella provincia di Staffordshire estendevansi nel 1866:—

	Per giorno			
	s.	d.	s.	d.
Per uomini	1	6	a	7
„ donne	1	6	„	1
Per settimana				
A Worcester:	s.	d.	s.	d.
Per uomini	16	0	a	50
„ donne	10	6	„	14
A Newcastle:	s.	d.	s.	d.
Per uomini	10	0	„	30
„ donne	10	0		

5. L' importazione di terraglia nella Gran Bretagna è molto piccola, e la quantità di mercanzia di terraglia e porcellana non è grande, ammontando soltanto a 18,705 quintali (hundredweight), il valore del quale è 166,098£. nell' anno 1865. La parte principale di queste importazioni venne dalla Francia.

6. Il valore della terraglia e porcellana esportata dalla Gran Bretagna durante gli anni cinque dal 1861 insino al 1865 era:—

	£
1861	1,070,000
1862	1,220,000
1863	1,341,000
1864	1,422,000
1865	1,422,000

7. Il meccanismo è usato in alcune divisioni del negozio, ma non tanto generalmente quanto si desiderebbe.

8. Un progresso considerevole è stato fatto negli anni scorsi nella fabbrica di terraglia e porcellana; e gli articoli comuni per l' uso di casa ora fabbricati sono celebri per il prezzo basso, la leggerezza di manifattura, ed eccellenza di finitura. Molta attenzione è anche stata osservata nella sostituzione degli ingredienti innocui invece di quelli velenosi per la lustratura della terraglia e dei risultati molto soddisfacenti sono stati ottenuti.

La migrazione nel disegno e nell' esecuzione degli articoli di qualità fine ora prodotti è dovuta agli sforzi reciproci di alcuni dei principali manifattori, e all' istruzione data dalle scuole d' arti ai braccianti dei distretti industriali. Un maggior uso di macchine sarebbe di gran servizio per sviluppare la fabbrica di terraglia del paese. Il progresso nella divisione dell' argilla da resistere al fuoco nella manifattura di terraglia è stato considerabile; 80 milioni di mattoni a prova di fuoco sono consumati ogn' anno solamente nel distretto di Newcastle, e circa 30 milioni in Stourbridge, in soprappiù alle storte, tubi, ecc., che si fanno in gran quantità.

Classe XVIII.

TAPPETI, TAPPEZZERIA ED ALTRE STOFFE DI MOBIGLIA.

1. Gli articoli principali compresi in questa classe, che sono fabbricati in gran quantità nella Gran Bretagna, sono tappeti, stoffe da tappezzeri, tela cerata, stoffe di caoutchouc e oggetti tessuti di crino. Le migliori qualità di tappeti inglesi sono i tappeti detti di 'Brussels' fatti alla macchina Jacquard e quelli detti 'Arazzi' ossia tappeti stampati, i primi essendo fabbricati a Kidderminster, Halifax, e Durham, e gli ultimi a Halifax. Delle altre specie di tappeti, vi sono quelle fabbricate a Wilton, e chiamate 'Axminster'; le 'Kidderminster' e 'Axminster' patentate a Glasgow e nelle altre parti delle Scozia; 'figure twills' a Durham; e le qualità meno costose di tappeto dette 'super' e quelle di feltro e d' olanda sono fabbricate nella divisione occidentale di Yorkshire. La manifattura di tappeti di 'jute' a Dundee è divenuta un negozio di qualche importanza. Le stoffe di cotone sono fatte a Manchester, e gl' articoli damascati, di lana, e di lana filata, si fabbricano a Halifax.

Tele cerate, per pavimento, e per coprire tavole sono comprate estensivamente nella Gran Bretagna, per uso di casa, ed anche sono esportate in gran quantità. Una proporzione considerabile di tale manifattura è condotta nelle vicinanze di Londra, ma le fabbriche sono poste in differenti parti del regno.

Tessuti di crino per fondi di sedie e di canapé sono ancora fabbricati, benchè questa mercanzia non è usata così generalmente per mobigliare come era prima. La fabbrica di stoje di caoutchouc, ecc., è aumentata maggiormente negli anni recenti.

2. Le sostanze che forniscono le materie greggie usate nelle fabbriche di tappeti sono state notate nelle osservazioni appartenenti alle Classe 27, 28 e 30. Il crino è importato in quantità considerabile, principalmente dalla Russia e dall' America. Le importazioni di questa mercanzia nell' anno 1865 ammontavano a centupli (cwts.) 21,078, del valore di 106,938£. I materiali greggi principali usati nella manifattura di stoje di caoutchouc, ecc., sono il caoutchouc e la gutta percha. Il primo è importato in gran quantità dall' America Meridionale e l' ultimo dall' Arcipelago Orientale e Singapore. La quantità totale ed il valore di quest' articoli importati nella Gran Bretagna nell' anno 1865 era :—

	Centuple (cwts.)	Valore £
Caoutchouc . . .	71,392	530,538
Gutta percha . . .	29,077	160,565

Una gran quantità di caoutchouc è riesportata, ed il resto, siccome la gutta percha, forma non soltanto la materia grezza del negozio di stoje di caoutchouc, ma è anche usata per una diversità infinita di lavori.

3. Eccezzuando il lavoro dei tappeti, non vi sono rapporti del numero dei braccianti impiegati nelle altre divisioni dei negozj compresi in questa classe. Il giuri della Classe 22 nell' Esposizione di Londra nel 1862 calcolò, che il numero delle persone impiegate nel negozio dei tappeti era circa 40,000.

4. Il salario medio dei braccianti impiegati fu detto essere nel 1851, da 16s. a 28s. per settimana, ma queste paghe sono probabilmente molto più basse di quelle presentemente in uso. Il valore totale dei tappeti fabbricati annualmente in paese può dare qualche idea dell' importanza di questo negozio, come mezzo per fornire un impiego ai braccianti. I numeri seguenti furono dati dal giuri all' Esposizione di Londra nel 1862 come una stima della produzione di tappeti nel medesimo anno :—

	£
In Yorkshire	980,000
„ Kidderminster e la vicinanza	630,000
„ Durham, Kendal, e locali vicini	120,000
„ Somersetshire e Wiltshire . .	40,000
„ Scozia	340,000
Totale	2,110,000

5. La tavola seguente fa vedere la quantità ed il valore di tappeti di lana e tappeti da camminetto importati nella Gran Bretagna dal 1861 al 1865 :—

	Canne quadrate (square yards)	Valore £
1861	61,869	27,538
1862	111,896	33,165
1863	83,696	30,743
1864	78,311	32,392
1865	98,936	39,247

6. L' esportazione di tappeti e bigelli inglesi è molto grande, la quantità ed il valore dei medesimi dal 1862 a 1865 ammontò a :—

Anni	Tappeti	Tappeti da Camminetto	Bigelli o Tappeti di Feltro
	Quantità		
	Canne (yds.)	No.	Canne (yds.)
1862	4,799,000	36,640	579,000
1863	5,582,000	45,907	676,000
1864	5,620,000	40,257	372,000
1865	5,284,000	60,991	459,000
	Valore		
	£	£	£
1862	620,700	14,737	50,515
1863	747,521	17,578	63,262
1864	825,098	14,782	36,400
1865	818,847	17,904	42,600

Gli Stati Uniti dell' America sono i consumatori principali di tappeti inglesi; nel 1865 2,164,000 canne (yards) furono mandate colà.

L' esportazione di tela cerata nell' anno 1865 era :—

	Quantità Canne quadrate	Valore £
Telacerata verniciata	2,094,000	138,459
Tela cerata, e tela di caoutchouc	320,000	40,448

7. La manifattura di tappeti è ora principalmente fabbricata a macchina; la tessitura fatta a mano con il telajo 'Jacquard' è stata abbandonata quasi interamente per la tessitura a forza di vapore.

8. Che la mercanzia di tappeti nel regno avesse fatto gran progresso dopo l' anno 1851 fu visto chiaramente nella miglioramento del gusto, colorito, e disegno degli articoli esposti nel 1862 a paragone di quelli presentati alla prima Esposizione di Londra, dacchè l' uso più esteso delle macchine a vapore ha migliorato importantemente la produzione di questo genere di mercanzia. Lo sviluppo vistoso della fabbrica di tappeti d' arazzo del Signor Crossley di Halifax, e forse una delle migliorazioni recenti la più importante nella fabbrica di tappeti nostrali. Durham, Glasgow, Halifax e Kidderminster posseggono ciascheduna scuole d' arti, e non è a dubitarsi che l' istruzione data ai braccianti in queste scuole abbia ottenuto un effetto eccellente sopra ogni fabbrica nei distretti.

Una miglioramento considerevole nel disegno su tela cerata è stata fatta dopo l' anno 1865.

Classe XIX.

CARTA DA PARAR MURI.

1. La fabbricazione di paramenti da muri è stata stabilita nella Gran Bretagna da più di un secolo, ed esercitata nella vicinanza di Londra,

a Manchester, a Edimburgo, ed altri locali del paese. La specie di carta da parar muri nella quale i manifattori inglesi si mostrano superiori è quella fatta a macchina, venduta a prezzi tanto bassi da permettere al più povero della società il lusso di abbellire e dar lieto aspetto alle mura delle loro stanze.

2. Una gran quantità di carta, colori, lana, e metallo è consumata annualmente nella fabbrica di tappezzeria, ma non esistono rapporti della quantità precisa così adoprata.

3. Secondo il censo del 1861, il numero dei braccianti impiegati nel negozio di paramenti da muri in ogni divisione del regno era :—

	Uomini	Donne	Totale
Nell' Inghilterra e } prov. di Galles }	1,556	399	1,955
Scozia	77	38	115
Irlanda	96	9	105
Totale	1,729	446	2,175

4. Non vi sono rapporti generali in ragione dei salarij pagati nel negozio di carta da parar muri. Un rapporto fatto dalla Camera di Commercio d' Edimburgo al Consiglio della stessa stima le mercedi pagate in quella località in 1866 di essere come segue :—

	Per settimana di 57 ore	
	s.	s.
Mischiatori di colori	12	
Vetraj, ecc.	15	
Stampatori e marmorizzatori	20 a 40	

5. La quantità ed il valore della carta da parar muri importata nella Gran Bretagna durante gli anni cinque dal 1861 a 1865 era :—

Anni	Carta da parar Muri	
	Quantità	Valore
	Centupli (cwts.)	£
1861	2,975	15,395
1862	4,210	17,680
1863	5,177	21,740
1864	5,979	25,110
1865	5,684	23,873

La Francia fornisce la più grande quantità di carta da parar muri importata nel paese.

6. La quantità ed il valore della carta inglese esportata durante il medesimo tempo era :—

Anni	Carta Inglese da parar Muri	
	Quantità	Valore
	Centupli (cwts.)	£
1861	13,415	105,984
1862	19,874	64,505
1863	25,874	84,403
1864	25,163	82,819
1865	32,893	109,320

7. La parte principale delle specie meno costose di carta da parar muri è fatta a macchina, le quali sono state assai migliorate

durante gli anni recenti. Le macchine usate sono capaci di stampare da 1,000 a 1,500 pezzi di carta ogni giorno.

8. Insino all' anno 1846 il gran diritto d' importazione imposto sulla carta forestiera ebbe l'effetto di escluderla quasi intieramente dal mercato inglese, e la mancanza di concorso fu certamente seguita dalla mancanza di miglioramento dalla parte dei fabbricanti inglesi. Nondimeno, dopo che il rivale forestiero è stato ammesso a concorso uguale nel commercio inglese un progresso vistoso è stato osservato nello stile e nella lavorazione delle carte inglesi, ed il miglioramento delle macchine ha offerto il mezzo di fabbricare belle carte ed a vilissimo prezzo.

Classe XX.

OGGETTI DA COLTELLINAJ.

1. L' Inghilterra è stata rinommata da lungo tempo per ogni specie d' oggetti da coltellinaj, il luogo principale della manifattura essendo a Sheffield. Oggetti da coltellinaj si fanno anchè in meno quantità in Londra ed in altre parti del regno.

2. L' acciaio usato nella manifattura d' oggetti da coltellinajo è prodotto a Sheffield principalmente da ferro forestiero. Nel 1862 il numero di fornaci per temprare in quella città fu 205 che facevano ogni anno 78,000 tons d'acciaio temprato; e il numero di fornaci per fondere 2,437, che facevano circa 51,000 tons d' acciaio fuso annualmente. Una porzione solamente di questa produzione è usata nel negozio d' oggetti da coltellinaj.

3. Dal rapporto dei giurj sugli oggetti da coltellinajo presentati all' Esposizione di Londra in 1862 si rileva che l' aumento nel numero dei lavoranti nel negozio della coltelleria da tavola, rasoj, temperini, coltelli da tasca, e di cisoje, ramificazioni del commercio di Sheffield, non era stato molto accresciuto dall' epoca dell' Esposizione del 1851 a quella del 1862; ma che a motivo dell' uso più esteso di meccanismo una maggior quantità di coltelli da tavola fu fabbricata degl' anni precedenti.

Il numero di persone impiegate nel borgo di Sheffield nelle ramificazione principali del negozio d' oggetti da coltellinajo in 1864 fu come segue :—

Ramificazioni del Negozio	Uomini	Donne	Totale
Fabbricanti di cisoje . .	1,089	331	1,420
„ lime	4,345	589	4,934
„ seghe	1,232	—	1,232
Coltellaj	3,294	184	3,478
Fabbricanti di lame . .	1,797	—	1,797
„ coltelli	4,944	—	4,944
„ rasoj	817	—	817
Totale	17,518	1,104	18,622

4. La quantità media dei salari pagati nelle ramificazioni principali del negozio a Sheffield in 1866 fu :—

Fabbrikanti di Coltelli da Tavola			
Occupazioni	Paga	Ore di Lavoro	
	s.		
Fabbri	28	60	
Battitori	24	60	
Fabbrikanti di manichi	21	60	
Arrotini	30	60	
Fabbrikanti di Coltelli			
Occupazioni	Paga	Ore di Lavoro	
	s.		
Arrotini	30	60	
Fabbri	30	60	
Coltellaj	25	60	
Fabbrikanti di molle e bilancie	25	60	
Fabbrikanti di Cesoje			
Occupazioni	Paga	Ore di Lavoro	
	s. s.		
Fabbri	20 a 30	60	
Limatori	20 „ 30	60	
Arrotini	27 „ 35	54	
Finitori	22 „ 32	54	

5. Il valore d' oggetti da coltellajo inglesi esportati dalla Gran Brettagna durante i quattro anni 1862 a 1865 fu :—

	£
1862	291,244
1863	304,119
1864	386,859
1865	402,294

6. Il meccanismo si usa in alcune ramificazioni del commercio d' oggetti da coltellajo, ma diverse delle opere più importanti si fanno a mano.

7. Benchè veruni miglioramenti d' importanza siano stati prodigati recentemente al commercio d' oggetti da coltellinajo, i prodotti di Sheffield mantengono la loro riputazione per eccellenza di qualità e di lavoro, ed anche per la bellezza di finitura e di disegno. Una scuola d' arte è stata stabilita a Sheffield nell' anno 1843, ed il numero degli studenti che frequentarono quella scuola nell' anno 1865 fu di 1,763.

Classe XXI.

VASELLAME D' ORO E D' ARGENTO.

La manifattura d' oggetti nei metalli preziosi è condotta nelle città principali del regno, ed i gran stabilimenti della capitale fanno ogni anno una grandissima quantità di vasellame d' argento. L' uso esteso negl' anni recenti d' oggetti laminati d' argento ha contribuito a limitare le operazioni del negozio nei metalli preziosi; il valore dei vasellami fatti ogni anno in Inghilterra è stimato d' essere più di un milione di lire sterline. C' è anche una esportazione di questi articoli, il valore della quale montò nel 1865 sino a 62,532/.

Non esistono statistiche del numero totale degl' artigiani impiegati nella produzione degl' articoli compresi in questa classe al presente. Il numero d' orrefej e di giojellierj in Londra è 159 e di cesellatori 41.

C' è stato progresso considerabile nell' applicazione delle arti negli 10 anni passati; ma in quanto al disegnare in contorno, e all' abbellimento, la coltivazione assidua della semplicità nello stile è molto necessario per i disegnatori inglesi di vasellame.

Classe XXII.

BRONZI, ED ALTRE FORME DI ARTI, ED OGGETTI DI LAVORO 'REPOUSSÉ.'

La manifattura di bronzi nella Gran Brettagna è molto ristretta, la scarsità di buoni cesellatori inglesi è attribuita alla maniera dell' ammaestramento adottata nelle scuole di disegno, che è calcolata piuttosto per produrre artisti e scultori che per buoni lavoratori in metallo.

La Francia fornisce la parte principale dei bronzi importati in questo paese; avendo mandato un valore di 55,168/ nel 1865, benchè l' importazione totale fu solamente 61,307/.

Classe XXIII.

LE PENDOLE, E GLI ORIUOLI.

La costruzione di pendole e oriuoli è condotta più specialmente in Londra, a Coventry, Liverpool, e Manchester. Gli oriuoli per li quali i fabbricanti inglesi sono più rinomati sono i cronometri, ed altre specie superiori di orologi, benchè un numero vasto d' oriuoli a buon mercato è fatto in questo paese. Le migliori macchine si fanno in Lancashire, ed una esportazione considerabile di macchine d' oriuoli è fatta ogni anno agli Stati Uniti dove sono incassati e finiti. Secondo il censo del 1861, il numero seguente di persone furono impiegate nel negozio di pendole ed oriuoli, nelle diverse divisioni del paese :—

	Uomini	Donne	Totale
In Inghilterra	20,221	536	20,757
Scozia	1,639	8	1,707
Irlanda	951	12	963
	22,871	556	23,247

Il numero degli impiegati nelle diverse ramificazioni del negozio in Londra ora (ecce- tuando lavoranti) è come segue :—

Fabbrikanti di oriuoli	412
Fabbrikanti di cassette da oriuoli	55
Giojellieri da oriuolo	31
Fabbrikanti di diverse parti d' oriuolo	277
Fabbrikanti di pendole	162
Fabbrikanti di cassette da pendole	14

Il valore delle pendole e oriuoli importati è restato quasi sempre al stesso punto nei cinque ultimi anni; nel 1865, pendole di un valore di 216,677*l.*, e oriuoli di un valore di 257,076*l.* furono importati nella Gran Bretagna. Il valore delle mercanzie inglesi esportate nel medesimo anno montò a 24,695*l.* di pendole, e 69,179*l.* d'oriuoli.

Classe XXIV.

APPARATI E PROCESSI PER ILLUMINARE E RISCALDARE.

La fabbrica delle migliori qualità di griglie da camminetto, paraceneri e ferri da camminetto è condotta a Sheffield, dove quella industria è stata stabilita per 60 o 70 anni. Avanti quel tempo le migliori grate furono fatte in Londra ed in Edimburgo. Le qualità più ordinarie sono fatte principalmente a Carron ed in altre fabbriche scozzesi, alle fabbriche di Coalbrookdale, ed anche nelle fonderie di Londra, Northampton, Dudley, Rotherham, Birmingham, Mansfield, Nottingham, e di Derby. L'arte di lavorare, arrotare, e di bruniere l'acciajo appartiene particolarmente a Sheffield ed ai suoi contorni. I territori dove si fonde il ferro presentano al fonditore il gran vantaggio di aver ferro e carbone a buon mercato, ed in queste località è quindi esercitato la maggior parte del negozio delle ferrate. Non si può ammettere che l'apparato per riscaldare colla circolazione d'aria calda e gli apparati per ventilazione abbiano toccata la loro massima perfezione: il difetto di successo è attribuito in parte alla costruzione degli edifizj nei quali sono stati messi questi apparati.

In quanto alle lampade, l'uso aumentato del gas negli anni recenti ha fatto scapitare l'olio come mezzo d'illuminazione, e una gran parte della manifattura della specie di lampade più antiche ha ceduto posto alla fabbricazione di quelle per il gas. Se la consumazione d'olio vegetale e olio di pesce ha diminuita, l'uso d'olio paraffino, scoperto recentemente, ha aumentato moltissimo, e ha dato origine alla fabbrica d'una nuova specie di lampade che si fanno in gran quantità a Birmingham a prezzi che variano da 4*l.* a 50*s.* ciascheduna. Lo sviluppo rapido della comunicazione a vapore per terra e per mare, ha anche prodotto una gran richiesta per segnali ed altre lampade, e ha dato impiego a quei braccianti che finora erano impiegati nell'antica manifattura di quest'articolo.

Classe XXV.

PROFUMERIA.

La principale manifattura di profumeria è in Londra, però quella degli odori, delle pomate, dei cosmetici, ecc., si esercita in minor

estensione nella maggior parte delle città principali d'Inghilterra. Pochissimi dei materiali grezzi usati nella manifattura dei profumi sono prodotti in questo paese, ma sono importati principalmente dagli Stati Meridionali dell'Europa e dell'Asia. La fabbricazione di sapone da toeletta nella Gran Bretagna è considerabile; il più celebre forse è quello detto 'Windsor soap,' il quale non solamente è usato in grande quantità in Inghilterra, ma è anche esportato in ogni parte del mondo. L'acqua di lavanda inglese ha anche avuto una grande riputazione per lungo tempo.

Non esistono statistiche ufficiali del numero totale degl'impiegati nella produzione dei profumi e dei saponi. Però, a motivo della gran aumento di cotesto traffico, ora trovano occupazione un gran numero di uomini; mentre le donne vengono occupate nei lavori di minor fatica.

Il numero dei manifattori occupati in rapporto col negozio dei profumi in Londra (eccettuato lavoranti) ora monta a—

Profumieri :—

Al ingrosso	151
A minuto	849
Fabbricanti di tinta da capelli . .	16

Il valore della profumeria inglese (eccettuato sapone da toeletta) esportata nell'anno 1865 montò a 94,351*l.* Gli esporti di saponi da toeletta nel stesso anno montò a 7,628 cwts., stimati al valore di 32,361*l.*

Durante i passati 10 anni, grande avanzamento è stato fatto nelle diverse ramificazioni del negozio di profumeria, e l'annullamento dell'imposta sul sapone nell'anno 1853 ha fatto buon effetto sulla fabbricazione di quest'articolo di prima importanza e necessità.

Classe XXVI.

LAVORI DI PELLE, ARTICOLI DI FANTASIA, E LAVORI DI CESTAJUOLO.

Non è possibile di verificare la somma totale della produzione degl'articoli diversi compresi in questa classe. Forse una delle mercanzie di più grande importanza è la fabbricazione delle spazzole, scope, ecc. A causa dell'uso generale di spazzole per bisogni domestici, la fabbricazione è di necessità grandissima, benché non esiste rapporto della sua estensione. Secondo il censo del 1861, il seguente fu il numero dei fabbricanti di spazzole e scope in ogni divisione della Gran Bretagna:—

In Inghilterra e la provincia di Galles	11,178
Scozia	535
Irlanda	617
Totale	12,330

L'importazione di spazzole e scope è di poco valore, e l'esportazione di questi oggetti di

manifattura inglese nell'anno 1865 montò solamente a 52,000£, la maggior parte delle quali fu mandata in Australia. D'altra parte una grande importazione di setole si fa ogni anno; nell'anno 1865, 2,566,000 libbre furono importate, principalmente dalla Russia. Una gran quantità di spazzole è anche fatta colle fibre del frutto cocco.

Il lavoro dei panieri nella Gran Bretagna è limitato principalmente alla fabbrica d'articoli

di qualità ordinaria; cioè, panieri, ceste, zane, ecc., benchè si fa anche diversi articoli di fantasia.

Le scatole da viaggio inglesi hanno gran riputazione per l'eccellenza della loro manifattura; si possono comprare a tutti i prezzi, variando da pochi shillings sino a mille ghinee l'una. Un avanzamento grande è stato fatto nella manifattura di questi articoli dall'anno 1851 in poi.

GRUPPO IV.

(CLASSI XXVII-XXXIX.)

VESTIARIO (COMPRESSE STOFFE) ED ALTRI ARTICOLI PORTATE SULLA PERSONA.

Classe XXVII.

FILI E STOFFE DI COTONE.

LA manifattura di cotone forma sempre la più grande ramificazione del lavoro nostrale nella Gran Bretagna, nonostante la crisi terribile che ha subito il commercio del cotone in questo paese, come in tutta l'Europa.

1. I luoghi principali di questa industria sono nel Lancashire in Inghilterra, e Lanarkshire nella Scozia. Le provincie di York, Chester, Derby, e Nottingham contengono anch' esse un gran numero di fabbriche di cotone.

Secondo l'ultimo rapporto, il numero totale delle fabbriche di cotone nella Gran Bretagna fu 2,887, del qual numero 2,715 furono in Inghilterra e la provincia di Galles, 163 in Scozia, e 9 in Irlanda. Un breve rapporto darà probabilmente un' idea migliore della distribuzione di questa industria nelle tre divisioni del regno :—

Divisioni e Provincie	Numero delle Fabbriche	Numero di Fusi	Numero di Telai a Vapore
In Inghilterra e la provincia di Galles :			
Lancashire . . .	1,979	21,530,532	306,423
Yorkshire . . .	369	2,414,898	17,393
Derby . . .	79	682,008	7,581
Cheshire . . .	212	3,373,113	32,926
Nottingham . . .	26	36,000	—
Altre provincie . .	50	315,574	3,802
Totale . . .	2,715	28,352,125	368,125
In Scozia :			
Lanarkshire . . .	96	1,138,602	24,149
Renfrew . . .	44	408,742	2,968
Altre provincie . .	23	368,054	2,993
Totale . . .	163	1,915,398	30,110
In Irlanda . . .	9	119,944	1,757
Nella Gran Bretagna	2,887	30,387,467	399,992

Si può considerare le cifre di sopra quale rappresentanza giusta dell' industria di cotone nei tempi di attività ordinaria. Una grande quantità di meccanismo nuovo è stato aggiunto

dopo l'anno 1861. Ma anche ora diverse fabbriche stanno senza lavoro.

Nei territorj di Lancashire e Cheshire, dei quali si può tenere Manchester qual centro, ogni specie di fili di cotone, pezzi di tela di qualità fine o ordinaria, tela stampata, velluti, ecc. ecc. sono fabbricati; mentre che a Glasgow che è il centro dell' industria di cotone in Scozia, sono fatte le qualità più sottili, come tela battista, giaconetta, ecc.

In quanto alle stoffe miste, che sono comprese in questa classe, è quasi impossibile di descrivere gl' articoli innumerabili nei quali il cotone costituisce la parte principale. Una delle fabbricazioni di più grande importanza è quella condotta a Bradford ed in altre parti di Yorkshire, cioè quella delle stoffe fatte con cotone e lana, che hanno l' apparenza d' essere tutta lana, benchè sono naturalmente di molto più buon mercato. Altri schiarimenti su questi oggetti si daranno nella Classe 29.

2. Antecedentemente alla guerra civile degli Stati Uniti, l' Inghilterra otteneva la più gran quantità del materiale grezzo usato nella fabbrica del cotone da quel paese. La quantità media dell' importazione totale del cotone grezzo nei cinque anni dal 1856 al 1860 montò a 1,129 milioni di libbre per anno, della quale 869 milioni furono ottenuti dagli Stati Uniti.

Durante il medesimo tempo 171 milioni di libbre furono esportati, lasciando 958 milioni per la consumazione annuale.

All' eruzione della guerra americana, la Camera di Commercio di Manchester prendeva misure attive per stimolare la coltivazione del cotone in diverse parti del mondo: e molti paesi, notabilmente l'India Britannica, Egitto, il Brasile, ed altre provincie dell' America Meridionale, ed anche la China ed il Giappone, aumentarono immensamente la coltivazione del cotone e contribuirono a fornire i mercati inglesi durante gl' anni 1861 a 1865. Sebbene nell' ultimo anno la provvista da questi paesi cominciò a diminuire, non potendo sicuramente lottare col produttore americano nei tempi di pace e tranquillità.

I tre paesi che hanno fornito maggior prov-

vista di cotone durante la guerra americana furono l' India Britannica, l' Egitto, ed il Brasile. L' importazione di cotone grezzo durante l' anno 1865 fu :—

	Libbre
Dell' India Britannica . . .	446,000,000
I Stati, Uniti, l' isole di Baama e il Messico compresi . . .	190,000,000
L' Egitto	177,000,000
Il Brasile	55,000,000
La China	36,000,000
Il Mediterraneo	27,000,000
Altri paesi	47,000,000
Totale	978,000,000

Di questa quantità 303 milioni di libbre furono ri-esportate, lasciando 675 milioni di libbre per la consumazione nostrale.

Le importazioni di cotone grezzo nei primi undici mesi di 1866 montavano a 1,260 milioni di libbre, o 482 milioni di libbre in più dell' importazione corrispondente nell' anno antecedente. Della concorrenza totale, 474 milioni di libbre furono forniti dall' India Inglese; 361 milioni di libbre furono ri-esportati durante gli undici mesi, lasciando 899 milioni di libbre per la consumazione nostrale.

Le variazioni nel prezzo di cotone da 1860 infino al tempo presente furono come segue :—

In Dicembre	Cotone Americano buono da terreno elevato, per libbra d.
1860	7 $\frac{1}{4}$
1861	11
1862	23 $\frac{5}{8}$
1863	27 $\frac{1}{2}$
1864	27 $\frac{1}{2}$
1865	22

Nel luglio ed agosto 1864 le contrattazioni montavano sino all' altezza di 31 $\frac{1}{2}$ d. per lb. Il cotone indiano ha anch' ottenuto prezzi alti da 1862 a 1865. I prezzi attuali sono (dicembre 1866) 16d. per cotone buono americano, e 12 $\frac{1}{2}$ d. per cotone buono di Dollerah (India).

Bisogna rammentarsi che durante la crisi, il prezzo di mercanzie di cotone non ascese nella medesima proporzione che il materiale grezzo: il costo della fabbricazione essendo restato allo stesso punto per vari anni, a motivo dell' applicazione estesa del meccanismo, e volendo mantenere a prezzo basso le mercanzie fabbricate, esse furono fatte più sottili, e conseguentemente contennero minore quantità del costoso materiale grezzo.

L' abbassamento nel prezzo del cotone, e la fiducia d' una richiesta sicura di mercanzie, ha fortunatamente messo i fabbricanti in posizione di tornare alle qualità prime, e ristabilire la riputazione delle loro fabbriche.

3. Di 451,000 persone impiegate nelle fattorie di cotone della Gran Bretagna in 1861, 315,000, 0-70 per cento, erano così occupate, nel territorio di Lancashire. Il rapporto

seguito farà vedere il sesso e l' età del numero totale degli artigiani :—

	In Inghilterra e la Galles	In Scozia	In Irlanda	Nella Gran Bretagna
Maschi :				
Avendo meno di 13 anni	21,774	307	—	20,081
13 anni a 18	38,210	2,661	336	41,207
18 e di più	111,720	5,060	488	119,268
Totale	173,704	8,028	824	182,556
Femmine :				
Avendo meno di 13 anni	17,382	325	—	17,707
13 e di più	206,512	32,884	1,910	251,306
Totale	223,894	33,209	1,910	269,013
Totale	407,598	41,237	2,734	451,569

Non è necessario di narrare qui l' istoria della carestia cagionata dal cotone e l' effetto che ne hanno risentito gl' artigiani. Il risultamento di quell' evento fu di persuadere ognuno che poteva ottenere impiego, di cercarlo in altre ramificazioni dell' industria, e conseguentemente al riaprire dei mulini a cotone ci fu difficoltà di ottenere gli operaj abili. A giudicare dalla molteplicità attuale della produzione e dalla richiesta probabile e continuata per uso nostrale e forestiero, v' ha luogo a sperare che la manifattura del cotone fornirà i mezzi da vivere al medesimo numero di operai come nel 1861. Stando al detto dei periti in tale materia, la quantità di cotone consumato presentemente (dicembre) è quasi uguale alla consumazione di 1860.

4. La ragione media dei salary guadagnati nelle diverse divisioni dell' industria di cotone nella provincia di Lancashire nel 1860 fu :—

	Per settimana di 60 ore	s.	s. d.
Filare :			
Filatori colla macchina da filare .	20 a 22	0	0
Tessere :			
Tessitori coi telaj a macchina (quasi sempre donne) con	2 telaj	10	10 9
	3	15	16 0
	4	16	20 0

La ragione dei salari pagati nel tempo presente è circa 10 per cento di più che quelli pagati nel 1860, per motivo della scarsità dei lavoratori.

Considerando il patimento crudele a cui ha dovuto sottostare ultimamente la popolazione industriale nei territorj del cotone, lo stato generale degl' artigiani è molto soddisfacente. Si può trovare ora impiego a salary buoni, e siccome diverse persone della stessa famiglia trovano occupazione nelle fattorie, l' unione dei loro guadagni basta per mantenerle in buon stato.

Il Sig. Ashworth narra, in un rapporto letto innanzi all' Associazione della Scienza Sociale a Manchester nell' ottobre 1866 che l' aumento

negl'anni recenti di scuole giornaliere, scuole di domenica, e scuole di fattoria ha servito molto al miglioramento dell'intelligenza, del carattere e delle abitudini della classe operaia.

‘Un numero grande d'istituti meccanici, circoli e collegi dei lavoratori, librerie franche ed istituzioni simili, stabiliti allo scopo di coltivare la mente e formare l'ingegno dell'operaio, sono ora assai stimate e frequentate dalla classe degl'artigiani. Aggiunto a questo, la stampa libera ed a buon mercato ha fornito all'artigiano inglese i mezzi d'educazione che non si godono quasi in nessun altro paese del mondo.

‘L'economia e la prudenza si vedono nel desiderio di molti di impadronirsi di tali mezzi che li metterebbero fuori del pericolo della scarsità attuale o li condurrebbero alla ricchezza.’ ‘Lo stabilimento tra loro di società co-operanti, compagnie di commercio e manifattura, stabilite coi fondi riserbati del popolo, e rappresentate esclusivamente dai più abili e fedeli de' loro confratelli, è un indizio di loro prudenza ed economia.’ Al 31 dicembre 1865 c'erano 139 società di questa specie in Lancashire solamente.

5. Il valore delle mercanzie di cotone importate nella Gran Bretagna, confrontato con quello degli esporti, è molto piccolo, essendo meno di un milione di lire sterline per anno. Gli articoli importati consistono principalmente in mussoline francesi, mercanzie in pezze dall'India ed altri paesi (delle quali una proporzione grande è ri-esportata), e calzetteria principalmente dalla Germania.

6. Dall'altra parte il filo di cotone e le manifatture formano la classe la più grande degli esporti del paese, come si vedrà dal seguente rapporto:—

Anni	Milloni di £					Valore della Esportazione totale
	Fili	Bianchi o Sem-plici	Imprimiti o Tinti	Altre Specie	Totale dei Fili, ecc.	
1860	10	23	17	2	52	136
1861	9	22	14	1	46	125
1862	6	16	12	2	36	124
1863	8	23	14	2	47	146
1864	9	27	17	2	55	160
1865	10	28	17	2	57	166

Il rapporto seguente della quantità e del valore delle mercanzie esportate nel 1860 e 1865 darà una indicazione generale del valore aumentato dei prodotti di cotone.

Fili di cotone:	Quantità Libbre	Valore (£ Lire sterline)
1860	197,343,000	9,870,000
1865	103,533,000	10,343,000

Filo da cucire:	Quantità	Valore
1860	6,297,000	741,000
1865	4,626,000	753,000

Mercanzie in pezze di tutta specie:

	Yards	£
1860	2,776,000,000	40,346,000
1865	2,015,000,000	44,860,000

7. La manifattura del cotone è condotta quasi interamente per mezzo di macchine. Il totale della forza motrice nel 1861 fu: macchine a vapore delle forze 281,663 cavalli, e forza idraulica di 12,467 cavalli. Sebbene c'è stato una grande aggiunta di meccanismo dall'anno 1861 in poi.

8. Lo stato di straordinario sviluppo al quale la manifattura del cotone è arrivata nella Gran Bretagna negl'anni recenti, rende difficile di poter mostrare i miglioramenti innumerevoli che son stati fatti nel meccanismo e nei processi usati nel fabbricar il cotone. Il progresso fatto è stato piuttosto nella direzione di semplificare e perfezionare il meccanismo già adoprato, che nel introdurre metodi nuovi per la fabbricazione.

Il giurì nominato per rapportare sul meccanismo all'Esposizione di Londra nel 1862, annunciò che il meccanismo inglese per filare il cotone non poteva essere maggiormente degno di lode, sia per la costruzione delle macchine, l'ordine e l'aggiustamento mutuo delle diverse parti, la perfezione ottenuta per l'introduzione dei miglioramenti nuovi, come per l'eccellenza della finitezza del lavoro.

‘Per i miglioramenti adottati, gli espositori hanno procurato di rendere le loro macchine tanto positive quanto automatiche nelle loro diverse variazioni, e perfezionate quant'è possibile. Questi sforzi sono stati fortunati in alto grado, ed hanno resultato nella perfezione delle macchine di più grande capacità, sia in quanto alla produzione come alla qualità del lavoro che fin ora fu stato ottenuto.’

In quanto al meccanismo per tessere, fu anche narrato ‘che in quanto al aggiustamento ed il lavoro, l'elogio accordato alle macchine da filare fu anche dovuto a quelle da tessere.

Grande progresso fu anche visibile nelle macchine da involtare, da incollare, e da ordire, in paragone con quelle esposte nel 1851.

Il cambiamento il più importante dopo 1862 è stato quello dell'adattare una gran porzione del meccanismo in usanza di agire col fiocco corto del cotone dell'India Orientale ed altro cotone, che prima della guerra d'America non fu usato in quantità considerevole. L'acceleramento di velocità nelle macchine è sempre continuato quando è possibile, ma le qualità inferiori di cotone non possono essere lavorate con grande velocità, e hanno bisogno d'una quantità più grande di meccanismo, che ne richiedono le qualità superiori.

9. In addizione al progresso che è stato fatto nelle diverse ramificazioni meccaniche dell'industria di cotone, i mezzi adottati dal governo pel miglioramento dell'educazione e del gusto degl'artigiani non devono esser trascurati. Scuole di scienza e d'arte sono adesso stabilite in rapporto col Dipartimento di Scienza ed Arte nei centri dei territorj industriali, come anche in altre parti del paese, e molte migliaia di studenti sono instruiti ogni anno negli elementi di scienza e nei buoni principj d'arte. In addi-

zione a queste scuole, 'raccolte circolanti' d'oggetti d'arte sono state stabilite, e sono mandate di provincia a provincia; e in questa maniera il lavorante che non ha il mezzo di viaggiare per vedere le collezioni d'arte nella metropoli ha adesso modelli buoni messi alla sua portata.

L'istruzione ha così prodotto un effetto buonissimo alle manifatture del paese. Un gran miglioramento a questo riguardo fu manifesto a tutti quelli che hanno visto le due Esposizioni di 1851 e 1862; e si crede che gli oggetti esposti in questa classe della divisione inglese nell'Esposizione attuale, mostrerà un avanzamento considerevole che onorerà l'arte, tanto al colore quanto al disegno, a paragone di quelli presentati all'ultima Esposizione di Parigi nel 1855.—(Per Calzetteria e Sottovesti vide Classe 34.)

Classe XXVIII.

FILI E FABBRICAZIONE DI LINO E DI CANAPA, ECC.

1. In questa classe sono compresi fili ed altre manifatture fatte di fibra vegetale, eccettuati quelli di cotone.

L'industria della tela, ossia manifatture di lino e di canapa, si stende largamente per tutto il regno, benchè è esercitata in più grande scala in Irlanda, nelle provincie di Antrim e di Down. Le ramificazioni più grandi del mestiere in Inghilterra sono situate nelle provincie di York e di Lancaster, e in Scozia nelle provincie di Forfar e di Fife.

La manifattura di *jute* (che è quasi sconosciuta in ogni paese forestiere eccettuato la Francia e l'Olanda) è ora arrivata a una posizione tanto importante nella Scozia che richiede più particolari schiarimenti. Il centro della manifattura è a Dundee. Il *jute* è un materiale fibroso, rassomigliando di molto alla canapa, e se ne serve principalmente nella fabbrica di tele grosse, sia da sacco, da imballaggio o da tappeto.

Il numero delle fattorie di canapa e di *jute* e di lino nelle tre divisioni della Gran Bretagna nel 1861 fu:—

Divisione e Provincie	Fattorie	Fusi	Telaj a Macchina
FATTORIE DI LINO			
In Inghilterra e la provincia di Galles:			
Lancashire . . .	13	117,412	489
Yorkshire . . .	70	172,272	1,403
Altre provincie . .	53	54,624	268
Totale . . .	136	344,308	2,160
In Scozia:			
Forfar . . .	85	160,090	5,108
Fife . . .	46	54,383	1,823
Altre provincie . .	32	64,912	1,035
Totale . . .	163	279,385	7,966

Divisione e Provincie	Fattorie	Fusi	Telaj a Macchina
FATTORIE DI LINO			
In Irlanda:			
Antrim . . .	47	360,592	2,854
Down . . .	15	103,630	128
Altre provincie . .	38	128,759	1,684
Totale . . .	100	592,981	4,666
Numero totale nella Gran Bretagna }	399	1,216,674	14,792
FATTORIE DI CANAPA			
In Inghilterra e Galles.	3	264	1
Scozia . . .	2	2,316	—
Irlanda . . .	—	—	—
Totale . . .	5	2,580	1
FATTORIE DI JUTE			
In Inghilterra e Galles.	4	620	—
Scozia . . .	27	30,538	554
Irlanda . . .	5	1,824	—
Totale . . .	36	32,982	554

Però, dopo l'anno 1861 i negozj della tela e del *jute* hanno fatto gran progresso, come si vedrà dalle statistiche seguenti.

Il rapporto seguente della posizione del lavoro della tela d'Irlanda al 1^{mo} gennaio 1866 fu pubblicato dal Sig. McIlwrath, segretario del comitato pel lino a Belfast:—

Mulini da filare il Lino.

Numero dei mulini, 86; fusi usati, 759,452; detti non usati, 11,362: totale, 770,814, con aumento proposto di 103,792 fusi.

Fattorie di Telaj a Macchina.

Numero delle fattorie, 44; telaj usati, 10,538; non in uso, 266: totale, 10,804, con aumento proposto di 6,484 telaj.

Ci furono anche 17,786 fusi, ed un aumento proposto di 4,656 fusi, usati nel torcere il filo. Si costruiva anche delle fattorie e dei mulini nuovi capaci di contenere un aumento proposto di 62,000 fusi, e 1,400 telaj.

Tele semplici, tele damascate, tele battista, pezzuole, ed altre qualità di tela sottile sono fatte nelle località di Belfast, Forfar, Brechin, Dunfermline, Barnsley, e Manchester, mentre che le qualità grosse, come tela da vele, tela da saccone, ecc., sono fatte nei distretti di Dundee, Hull, Greenock, e Arbroath. Il refe è anche fabbricato in gran quantità a Leeds.

Il Sig. R. Sturrock, il segretario della Camera di Commercio a Dundee, rapportò che la manifattura del *jute* cominciava a Dundee nell'anno 1830, e che nel 1865 quasi 72,000 tons di *jute* grezzo furono importati in quella città.

Egli stima il numero attuale di fattorie di *jute* per filare e tessere a 60, che contengono 100,000 fusi, e 5,000 telaj a macchina.

2. Una grande porzione del materiale grezzo usata nel lavoro della tela nella Gran Bretagna

Il valore delle stoffe tessute, bianche, semplici e damascate, nel 1865, montò a sette milioni e mezzo di lire sterline, dà un valore totale di nove milioni. Il valore del filo di lino da cucire esportato nel medesimo anno fu 558,000.

Durante i dieci anni 1851 a 1860, il commercio dell'esportazione di mercanzie di tela dalla Gran Bretagna è restato quasi sempre allo stesso punto, e montò un poco di più di quattro milioni di lire sterline ogni anno.

Le proporzioni relative della quantità e del valore delle qualità principali delle mercanzie di tela esportate in 1860 e 1865 furono:—

		Quantità	
		1860	1865
Refe di lino . . libbre		31,210,000	36,796,000
Tessuti di lino :			
Bianchi, semplici, } yds.		136,936,000	222,790,000
e damascati			
Stampati, tinti, } „		3,203,000	16,965,000
quadrati			
Tela da vela . . „		3,857,000	7,250,000
Refe da cucire . libbre		3,229,000	3,935,000
		Valore	
		£	£
Refe di lino . . libbre		1,801,000	2,535,000
Tessuti di lino :			
Bianchi, semplici, } yds.		4,161,000	7,537,000
damascati			
Stampati, tinti, } „		98,000	606,000
quadrati			
Tela da vela . . „		175,000	383,000
Refe da cucire . libbre		340,000	558,000

7. Il commercio della tela è condotto quasi interamente per mezzo di macchine; è vero che i telaj a mano sono anche ora adoperati in Irlanda, ma l'uso di queste macchine abbassa rapidamente. Dr. Watts rapporta nel suo libro, 'Fatti della Carestia pel Cotone,' che l'economia del lavoro nella produzione di refi da tela ha fatto grande progresso durante l'ultima decade, Dieci anni fa, nove e dieci *leas* per fuso per settimana di fili No. 11-30 fu considerato lavoro buono; ma in 1865 diciotto *leas* per settimana di medesima qualità di refe furono fatti.

Il negozio del *jute* si fa quasi interamente col meccanismo.

8. Il giuri nominato per esaminare le mercanzie di tela mandate all'Esposizione di Londra nel 1862, riferì 'che l'Inghilterra e l'Irlanda mostrano d'avere fatto miglioramenti considerevoli nella coltivazione ed il maneggio del lino. L'Irlanda è detto meritare notificazione speciale pel gusto buono che si vede nella coltivazione di tele e di 'cambric' stampati. Le tele stampate sono principalmente per uso forestiere. Laude fu anche data per la qualità fine delle tele imbianchite d'Irlanda che è attribuita alla acconcezza della clima per lo scopo del bianchimento e alla combinazione fortunata del processo fatto all'aria aperta coll'uso dei mezzi chimici. Gran progresso fu anche osservato nella fabbrica di corde di

stoppa, e nell'aumento dell'uso di telaj a macchina.

La posizione fissa del commercio dell'esportazione di tela nei dieci anni prima del 1861 è stata già osservata. Il Sig. Aclan, il relatore della Classe 19 all'Esposizione di 1862, ha dato certe notificazioni interessanti su questo soggetto, alle quali ha attribuito la mancanza del progresso alle difficoltà che ricontravano nel lavorare il materiale grezzo in paragone della facilità di filare il cotone grezzo. Egli rapportò che i fili di lino fatti a macchina costavano più che i fili di cotone, lunghezza e peso di fibra essendo uguali.

Il meccanismo necessario per filare il lino è molto più forte, e ha bisogno di forza di vapore più grande che quello che si usa per filare il cotone. Questo è dovuto alla maniera difettosa attuale di macerare il lino, che lascia una gran quantità di gomma nella fibra, e così lo rende più difficile a filare.

Uno dei risultati della fermata del commercio di cotone durante la guerra d'America fu di aumentare la richiesta per merce di lino, e così fu dato un impeto straordinario all'industria del lino nel paese. I prezzi alti del lino che reggevano durante la carestia di cotone incoraggiarono i proprietari di terre a coltivare il lino più estesamente, e anche stimolarono i produttori stranieri di mandare i loro prodotti ai mercati inglesi; la conseguenza del quale fu un gran risuscitamento del commercio di lino. C'è ogni ragione per sperare che, se gli sforzi fatti in quest'ultimi anni sieno mantenuti, l'industria di lino prenderà un nuovo slancio dalla sospensione passeggera del commercio di cotone, e aumenterà materialmente le ricchezze del paese.

A riguardo dell'industria di *jute*, miglioramenti nel meccanismo si fanno costantemente, ed a cagione di scoperte recenti, l'applicazione del *jute* ai diversi proponimenti di manifattura se stende largemente. Il numero degli studenti nella Scuola d'Arte di Dundee nell'anno 1865 fu 1,922, e si dice che i meccanici ed operaj occupati nel negozio di *jute* hanno avuto gran vantaggio dell'istruzione che a loro fu data.—(Per *Calzetteria* e *Sottovesti* vide Classe 34.)

Classe XXIX.

LANA CARDATA E STOFFE DI STAME.

1. L'appellazione di 'worsted' (stame) data alle fabbriche di lana filata si dice avere il suo principio da un piccolo villaggio di Norfolk del medesimo nome, dove la fabbrica fu primieramente proseguita. L'industria di lana è di una data antichissima, ma è soltanto comparativamente agli anni recenti, che ha attinta la sua presente importanza. Dall'anno 1825 fece grandissimo progresso, ma insino a quell'anno stami di lana pura soltanto furono fabbricati. Alcuni anni più tardi, l'introduzione degli orditi di cotone fu fatta, e per questo una grande impulsi-
sione fu data alla fabbrica. Stami sono fab-

bricate ora di lana pura, e di lana mista col cotone, seta, paco, mohair (pelo di una specie di capra di Turchia fina come la seta), ecc., e il valore annuale della fabbrica di stame è ora uguale se non più grande di quello della industria di lana.

Stame di lana pura comprende merinos, stoffe increspate semplici e doppie, rascie, saje (lastings), ecc., e damasco per tappezzeria. Delle fabbriche miste, quelle composte di lana e cotone, come 'coburgs' e 'orleans' sono consumate immensamente, le altre misture sono anche fabbricate a una grande scala, e di ogni specie di qualità. Bradford è rinomata per la produzione di merinos all'increspazione semplice, e fabbriche miste, Halifax per stame grossa e damaschi, ecc.

Bradford, nella provincia di York, è il centro principale della mercanzia di stame. Il numero delle fabbriche in ogni divisione del Regno nel 1861 era:—

Divisione	Numero di Fabbriche	Numero di Fusi	Numero di Telaj
Inghilterra e provincia di Galles:			
Provincia di York .	443	1,149,072	40,577
Altre provincie .	69	96,454	2,301
Totale . . .	512	1,245,526	42,968
Scozia	17	38,946	80
Irlanda	3	4,700	—
Totale, Gran Bretagna	532	1,289,172	43,048

Benchè non vi sono statistiche pubbliche più recenti della quantità dei fusi e dei telaj impiegati nella fabbrica di stame, è generalmente saputo che il numero di questi è stato aumentato considerabilmente dopo l'anno 1861.

2. Le fonti delle provvisioni del materiale grezzo, di lana, cotone e seta usate nella fabbrica di stame saranno trovate nelle osservazioni alle Classe 27, 30, e 31. Riguardando la provvisione di mohair, la tavola seguente farà vedere le importazioni durante i cinque anni dall' anno 1861 al 1865:—

	Crino, ossia Lana di Capre
1861 . . .	libbre 3,335,000
1862 . . .	4,048,000
1863 . . .	3,434,000
1864 . . .	4,737,000
1865 . . .	5,402,000

Il Signor Behrens stimava che la totale quantità di merci greggie (lana, mohair e cotone) consumata nella fabbrica di stame nell' anno 1864 era circa 150 milioni di libbre, le quali dovrebbero valere in uno stato perfezionato circa 33,600,000%.

3. Del numero completo dei braccianti impiegati nelle fabbriche di stame nella Gran Bretagna nell' anno 1861, 76,000 o 88 per cento erano impiegati nelle fabbriche di York-

shire. Le età e il sesso del numero totale degli impiegati sono esposte nella tavola seguente:—

	In Inghilterra e Provincia di Galles	In Scozia	In Irlanda	Nella Gran Bretagna
Uomini:				
Avendo meno di 13 anni .	6,268	—	—	6,268
13 a 18 anni .	6,424	178	12	6,614
Avendo più di 18 anni .	17,700	895	24	18,619
Totale .	30,392	1,073	36	31,501
Donne:				
Meno di 13 anni .	6,906	4	—	6,910
Più di 13 anni .	45,674	1,839	139	47,652
Totale .	52,580	1,843	139	54,562
Totale .	82,972	2,916	175	86,063

Il soprascritto è l' ultimo rapporto pubblico del numero della gente impiegata, ma è creduta essere molto al di meno del numero attuale ora impiegato nella fabbrica di stame del paese.

4. Il prezzo medio pagato nelle ramificazioni principali del negozio di stame nel anno 1866 era—

A BRADFORD.

Filatori:

Donne 7s. 6d. a 10s. per settimana di 55 ore

Tessitori:

Uomini .	18s. 6d.	60	„
Donne .	12s.	55	„

A HALIFAX.

Filatori:

Uomini .	30s.	60	„
Donne 7s. 6d. a 8s. 6d.		60	„

Tessitori:

Uomini 16s. a 24s.	„	„	„
Donne 8s. a 12s.	„	„	„

5. Le importazioni di fili di stame sono state osservate nelle note alla Classe 30. Le importazioni di stoffe di stame non sono molto grandi. Nell' anno 1865, 154,000 pezzi di stoffe furono importate, e stimate a 334,000%. Queste mercanzie vennero principalmente dalla Francia.

6. Una aumentazione immensa è stata fatta nell' esportazione di fabbriche di stame, dopo l'anno 1860, e questa si vede nella tavola seguente:—

Articoli		1860	1865
Stame filata .	{ libbre £	26,455,000 3,578,000	30,221,000 5,074,000
Stame fabbricata	{ libbre £	148,685,000 7,013,000	233,078,000 13,361,000

Un grandissimo negozio in merce di stame è stato proseguito colla Francia dopo la conclusione del Trattato di Commercio (Commercial Treaty) convenuto col sudetto paese, il valore di questi esporti toccò la somma di 1,332,000 lire sterline nell'anno 1865.

7. La fabbrica di stame è condotta intieramente per mezzo di macchine. La forza motrice usata nelle fabbriche di stame nel 1861 fu stimata a forza di macchine a vapore di 26,234 cavalli e di macchine idrauliche di 1,970 cavalli.

8. Il successo della industria di stame nell'Inghilterra è dovuto alla perseveranza ed al ingegno manifestati nella produzione di una varietà infinita di merci fabbricate per la combinazione di fibre animali e vegetali, le quali, dalla grande estensione delle loro qualità, ed i loro prezzi, sono causa che siano largamente usate per provvedere ai bisogni della popolazione, sia per vestiario sia per mobiglia.

I processi chimichi necessarj affinchè una tessitura composta di sostanze animali e vegetali può essere adattata a ricevere una tinta uguale e regolare, sono necessariamente varj e difficili, ma gli sforzi dei tintori hanno riuscito così bene che si può tingere le merci fabbricate di ordito di cotone bianco, e che le trame di stame possono essere tinte di colore buono come il merino di Francia, fatto di lana pura.

Riguardando il progresso recente del negozio, il giuri delle fabbriche miste nel 1862 diede conto di un 'grande miglioramento nella tinta delle merce di ordito di cotone, nella perfezione delle fabbriche diverse di lane fine e mohair, e più specialmente nel genio e nella conoscenza dei colori osservabili negli oggetti di fantasia che formano al presente una sì grande porzione del negozio.

Una scuola d'arte fu stabilita a Bradford nell'anno 1865, e senza dubbio sarà il mezzo di migliorare ancor più il genio di tutte le classi che sono in rapporto col negozio importante di stame di quel distretto.

Classe XXX.

LANA CARDATA E TESSUTI DI LANA.

1. Benchè l'industria di lana esistesse in Inghilterra in un tempo molto remoto, è indubitato però dover essa il suo stabilimento permanente in gran parte al decreto del Re Edoardo III, il quale diede invito ai fabbricanti di Fiandra, di stabilirsi in cotoesto paese nell'anno 1331. Avanti quel tempo la lana inglese fu esportata in Fiandra e rimandata in una forma lavorata; dopo quel tempo, nondimeno, la fabbrica di lana cresce costantemente, e di più è riguardata come una delle industrie le più importanti dello Stato.

Le fabbriche di lana della provincia occidentale di Yorkshire e quelle nell'occidente d'Inghilterra, le quali furono stabilite nel regno d'Edoardo III, sono rimaste insino al presente i siti principali di questa ampia industria. Leeds è il centro il più importante del distretto della provincia occidentale, e può

essere considerata il capitale del negozio di lana. Huddersfield e dintorni è la seconda in importanza, essendo anche rinomata, in aggiunta alla produzione di panno di lana, per un gran negozio in stoffe di fantasia per pantaloni, ecc. Nell'occidente dell'Inghilterra, Trowbridge in Wiltshire è il centro di un grande distretto che produce roba di fantasia e panni leggieri di diverse qualità, e Stroud in Gloucestershire è celebre per i suoi panni rossi, ed altri colori brillanti, una celebrità che ella deve alla grande bontà delle sue acque ai processi di tintura.

Le merci scozzesi, sciarpe, ecc., sono generalmente di tessuto assai molle e di una tintura stabile. Le coltre, che sono comprese in questa classe, sono fatte principalmente a Witney in Oxfordshire, ed a Dewsbury in Yorkshire. Le flanelle sono prodotte in Galles per la più parte da lavoro fatto a mano e Rochdale e il suo distretto è ora il centro della ramificazione inglese di cotoesto negozio. I tappeti di feltro sono fabbricati nel distretto di Yorkshire, ed anche usati grandemente in Inghilterra, essendo uno sostituto poco costoso per tappeti.

Una ramificazione molto importante del negozio di lana, e una che merita più che una osservazione fuggitiva, è quella del negozio chiamato 'shoddy.' Le interessanti osservazioni seguenti su cotoesto negozio furono fatte dal giuri sulle lane all'Esposizione del 1862. 'Il shoddy è di tre sorta. 1. "Shoddy" fabbricato da stracci di lana dolce, cioè flanella, coltre, calze, tappeti, ecc. 2. "Mungo" fabbricato con stracci dolci e duri, con una mistura di pezzetti di panno nuovo, ecc. 3. Estratto di lana, ossia lana estratta dalla mistura di stracci di lana e di cotone per un processo chimico, che consuma il cotone, e lascia la lana intatta. La combinazione di 'shoddy' colla lana, insieme coll'uso dell'ordito di cotone è la più preziosa adattazione di mercanzie nella istoria del negozio di lana che l'ingegno umano abbia scoperto. Per suo mezzo, una gran parte del ceto medio può procurarsi articoli di vestiario utili e convenienti, i quali erano prima al di là dei loro mezzi pecuniarj. Dewsbury, Batley, e le città circostanti nella provincia occidentale di Yorkshire sono i centri della sua fabbrica.

Le statistiche della industria di lana del Regno nell'anno 1865 sono le seguenti.

Divisione e Provincie	Numero delle Fabbriche	Numero dei Fusi	Numero del Telaio a Macchina
Inghilterra e Galles :			
Yorkshire . .	924	1,296,190	11,405
Devonshire . .	16	12,585	255
Gloucestershire . .	49	59,986	618
Lancashire . .	101	277,655	6,377
Montgomery . .	43	20,920	262
Somersetshire . .	26	31,401	401
Wiltshire . .	32	44,825	549
Altre provincie .	265	103,288	477
Totale .	1,456	1,846,850	20,344

Divisione e Provincie	Numero delle Fabbriche	Numero dei Fusi	Numero dei Telai a Macchina
Scozia :			
Aberdeen . . .	25	17,510	93
Clackmannan . .	15	38,311	214
Peebles . . .	7	51,142	101
Perth . . .	16	16,353	—
Roxburgh . . .	21	60,747	300
Stirling . . .	16	46,368	158
Stirling . . .	23	32,950	64
Altre provincie .	61	53,804	373
Totale . . .	184	317,185	1,303
Irlanda . . .	39	18,574	123
Totale nel Regno .	1,679	2,182,609	21,770

Il numero dei fusi e telai rapportati nel 1861 è però assai minore della quantità adoprata al presente, una grande impulsione essendo stata data alla fabbrica di lana, dopo il rincarimento nel prezzo del cotone durante la carestia del medesimo.

2. Il materiale greggio per l'industria di lana è prodotto in estensione considerabile nel paese, ma come non vi esistono rapporti della quantità della produzione nostrale, una stima soltanto può essere data. Cominciando la stima sul numero delle pecore nel paese, la produzione nostrale monta probabilmente a libbre 152,000,000 annualmente.

Il medio d' esportazione annuale di lana inglese durante gli anni cinque passati, era libbre 10,000,000.

Della provvisione forestiera, più di 70 per cento è fornita dalle colonie della Gran Bretagna, Australia e i dominj in Africa Meridionale avendo la precedenza. La Germania fornisce alcune qualità più fine di lana, e una gran quantità è anche importata dall' America Meridionale. Il progresso rapido nel negozio di lana durante gli anni recenti è visto nella tavola seguente delle importazioni di lana greggia di ogni specie (quella di pecore, agnelli, paco, lama e vigogna) nel 1855, 1860 e 1865:—

Paesi dalle quali importati	1855	In 1860	In 1865
	Libbre	Libbre	Libbre
Colonie della Gran Bretagna :			
Anustralia . . .	49,142,000	59,166,000	109,734,000
India . . .	14,283,000	20,214,000	17,105,000
Capo di Buona Speranza	11,075,000	16,574,000	29,220,000
Paesi forestieri :			
Spagna . . .	68,000	1,000,000	115,000
Germania . . .	6,128,000	9,292,000	6,858,000
Altri Stati Europei	8,119,000	28,570,000	27,693,000
America Meridionale . .	7,106,000	8,950,000	17,867,000
Altri paesi . . .	3,379,000	4,630,000	3,614,000
Importi totali . . .	99,300,000	148,390,000	212,206,000
Esportati . . .	29,453,000	30,761,000	82,445,000
Lasciato per consumazione nostrale . . .	69,847,000	117,635,000	129,761,000

Bisogna aver in mente che le sopradette statistiche appartengono alla lana greggia, ecc.,

usata nella fabbrica di stame, siccome in quella di lana. Del totale di 212 milioni di libbre di lana importate nel 1865, quasi tre milioni di libbre furono di paco, lama e vigogna.

Aggiunto al sopradetto, le quantità seguenti di stracci di lana adoprati nel negozio di shoddy furono importate:—

	Stracci di lana	Stracci di lana strappati per essere usati come lana
	Tonnellate (tons)	Tonnellate (tons)
1861 . . .	3,290	7,602
1862 . . .	4,311	8,972
1863 . . .	5,766	9,866
1864 . . .	5,909	10,037
1865 . . .	5,462	9,316

Il Signor Behrens stima la produzione annuale di lana da 'shoddy' nel paese a 52 milioni di libbre, e dell' estratto di lana a 5 milioni di libbre.

La stimata provvisione totale di materiali greggio usato nel negozio di lana e stame del paese nell' anno 1865 può essere calcolata come segue:—

	Milioni di libbra
Lana inglese (meno gli esporti) . . .	142
„ forestiera „ . . .	130
' Shoddy,' fabbrica nostrale . . .	52
„ importata . . .	22
Estratto di lana . . .	5
Fili di lana e di stame . . .	4½
Crino o lana di capra . . .	5
	360½

Il Signor Behrens stima la totale quantità di materiali greggio adoprato nel negozio di lana e stame, nel 1864, a 384,000,000 libbre, il qual montante egli divide fra le due industrie, cioè:—Nel negozio di lana 234,000,000 libbre, rappresentando un valore di 30,800,000 lire sterline nel stato lavorato; e nel negozio di stame, 150,000,000 libbre, rappresentando un valore di 33,600,000 lire sterline nel stato lavorato. Gli importi di lana forestiera nel 1865 erano considerabilmente minori di quelli importati nel 1864.

3. Il numero dei braccianti d' ogni sesso impiegati nelle fabbriche di lana nel 1861 era—

	In Inghilterra e Galles	Scozia	Irlanda	Gran Bretagna
Uomini avendo } meno di 13 anni } 13 a 18 anni . } Avendo più di 18 anni . }	3,333 9,811 30,954	29 1,327 3,855	— 75 370	3,362 11,213 35,179
	44,098	5,211	445	49,754
Donne : Avendo meno di } 13 anni . } Avendo più di 13 anni }	2,598 29,613	9 4,592	— 417	2,607 34,622
Totale . . .	32,211	4,601	417	37,229
Totale uomini e donne . . .	76,309	9,812	862	86,983

Le cifre soprascritte sono assai minori del numero attuale di braccianti impiegati al presente; questo è dovuto alla grande estensione del negozio di lana dopo l'anno 1861.

4. Il prezzo medio dei salary guadagnati nelle due divisioni principali dei lifici durante l'anno 1866 era come segue:—

		Uomini	Per settimana di 60 ore			
			s.	s.	d.	
A Huddersfield	Filatori	.	18	a	30	0
	Tessitori	.	18	„	23	6
	Modellisti	.	16	„	30	0
	Disegnatori	.	30	„	50	0
A Dewsbury	Filatori	.	34s.			
	Tessitori	.	20s.			
	Modellisti	.	22s.			
	Disegnatori	.	36s.			

5. I conti del negozio inglese non distinguono gli importi di fili di lana da quelli di stame. L'aumentazione recente nella quantità di stame importata marcata nel rapporto ufficiale come 'lana e stame,' e probabilmente dovuta più alla dimanda di lana. I montanti seguenti di ciascheduna specie di lana e stame furono importati fra gli anni 1861 e 1865:—

	Libbre
1861	1,577,000
1862	2,244,000
1863	4,526,000
1864	4,654,000
1865	4,392,000

Le soprascritte cifre comprendono anche lana di Berlino e stame per oggetti di fantasia, le quali montarono a 211,000 libbre nel 1865.

Il valore di panni di lana importati durante il medesimo tempo era:—

	£
1861	119,654
1862	124,245
1863	147,757
1864	177,922
1865	190,221

6. I rapporti degli esporti delle specie principali di mercanzie incluse in questa classe fanno vedere uno stato favorevole di questa ramificazione del negozio, come la tavola seguente esporrà:—

		Quantità		Valore	
		In 1860	In 1865	In 1860	In 1865
Fili di stame	Libbre non rapportate		Libbre	£ non rapportate	£
			203,929		35,694
Lana: Panni da abiti	Canne	23,968,000	25,616,000	2,996,000	4,024,000
	Flanelle, coltre e bajette	12,641,000	14,769,000	848,000	1,203,000

7. La più gran parte dell'industria di lana è fatta per mezzo di macchine, ma, benchè grandissimo progresso sia stato fatto nella perfezione delle macchine adoperate, l'industria di

lana è, però, assai meno avanzata dell'industria di cotone. Benchè la tessitura a mano si eserciti tuttora in alcuni distretti di Yorkshire, l'uso però dei telaj a mano diminuisce gradualmente. Il montante di forza motrice in uso nelle fabbriche di lana era nel 1861, macchine a vapore della forza di 26,879 cavalli e macchine idrauliche della forza di 9,598 cavalli.

8. Il progresso nel negozio di lana durante gl'ultimi dieci anni è stato molto grande in ogni ramificazione. La provvista aumentata dei materiali greggi, l'introduzione della nuova combinazione di lana con altre materie, la miglioramento del meccanismo, ed i nuovi metodi di tingere devono essere citate come prove di progresso. L'uso più estensivo del telajo a macchina nella tessitura, specialmente riguardando la sua adattamento per la tessitura dei disegni a vari colori, ha contribuito potentemente al miglioramento del negozio di lana. Grandi progressi sono stati fatti anche in quasi ogni specie di macchine impiegate nella fabbricazione. Il principio importante di crescente velocità nel movimento delle macchine non è stato nemmeno perduto di vista.

La produzione di panni di 'shoddy' a buon mercato e paragonata ai panni veri, possedendo le medesime qualità delle lane pure, colla mancanza solamente di finitura e durabilità di colore, ha incontrato il pubblico favore, non solamente col provvedere la classe povera di buoni articoli, ma ancora nel utilizzare una merce che era riguardata come sciupio, e per tal modo offrire impiego a qualche migliaio di braccianti.

La gran domanda per lane di fantasia negli anni recenti ha fornito pieno impiego, non soltanto ai disegnatori di modelli ma anche ai tintori. Leeds, Huddersfield, Stroud e Trowbridge possiedono ciascheduna scuole d'arti, e al di là di otto mila studenti ricevettero istruzione a queste scuole durante l'anno 1865. La scoperta della tinta 'anilina' ha condotta a miglioramenti vasti nel disegno e colori della migliore qualità di lane.

Il rapido sviluppo delle società co-operative per fornire ai braccianti provvisione e vestiario a prezzi di fabbrica verso contante, contribuirà, si spera, a consolidare le abitudini d'economia fra la popolazione operaia nei distretti commerciali di lana.

Classe XXXI.

SETA E FABBRICA DI SETA.

1. L'industria serica del Regno Unito, benchè sia di minor rilievo che quella delle altre fabbriche tessili del paese, è nondimeno di grand'importanza. La sua prosperità era per molti anni ritardata da un sistema di interdetti e di limitazioni sull'importazione di mercanzie di seta forestiera, ed il concorso necessario

in ogni caso a una gran produzione essendogli così negata, rimase per lungo tempo in uno stato assai poco soddisfacente. La protezione contro il concorso forestiero e il monopolio del mercato nostrale limitato, che il negozio aveva per tanto tempo goduto, furono acquistati, però, a un prezzo troppo grande. In Inghilterra la maggioranza dei fabbricanti si contentava di fornire i mercati nostrali vicini, senza fare nessun miglioramento d'importanza nelle loro fabbriche, allo stesso tempo che nei paesi forestieri grandi avanzamenti furono fatti nei differenti processi della manifattura, e per conseguenza, all' inaugurazione del sistema del commercio libero, i fabbricanti inglesi si trovarono in una posizione assai poco vantaggiosa. Dopo l' anno 1851, il negozio inglese di seta ha nondimeno fatto gran progresso a dispetto delle grandi difficoltà che circondavano la sua strada.

Fra gli anni 1850 e 1861, il numero delle fabbriche di seta nel Regno aumentò da 277 nel primo anno a 771 nell' ultimo; il numero dei fusi da 1,225,000 a 1,338,000 e il numero di telaj a macchina da 6,092 a 10,709. La distribuzione di fabbriche di seta nell' anno 1861 era nelle tre divisioni del regno:—

	Numero di Fabbriche	Numero di Fusi	Numero di Telaj a Macchina
Inghilterra e Galles:			
Cheshire . . .	175	409,470	1,509
Derbyshire . . .	42	98,210	449
Essex . . .	9	155,681	591
Lancashire . . .	48	128,109	4,201
Warwickshire . . .	331	6,732	2,065
Yorkshire . . .	27	122,952	8
Altre provincie . . .	129	384,756	1,812
Totale . . .	761	1,305,910	10,635
Scozia . . .	8	31,452	60
Irlanda . . .	2	1,182	14
Totale, Gran Bretagna . . .	771	1,338,544	10,709

Stoffe di seta sono prodotte principalmente a Manchester, nastri a Coventry, e merce di seta di fantasia a Macclesfield.

2. Il materiale greggio usato nella industria di seta è fornito, per la più parte, dall' Italia, la China, l'India, e il Giappone, la più grande quantità essendo contribuita da questi ultimi tre paesi.

La quantità del materiale greggio serbata per la consumazione dal 1860 al 1865 era:—

	Seta cruda Libbre	'Knubs' Guscii e Sciopp Libbre
1860 . . .	6,024,000	1,784,000
1861 . . .	4,613,000	3,225,000
1862 . . .	5,166,000	2,678,000
1863 . . .	5,368,000	3,455,000
1864 . . .	1,733,000	2,691,000
1865 . . .	4,595,000	3,608,000
Prezzo medio . . .	4,583,000	2,907,000

Una piccola quantità di seta torta è anche importata, ma le importazioni hanno diminuito considerabilmente dopo l' anno 1860. Gli importi nel 1865 erano 60,130 libbre.

3. Il numero delle persone di ogni sesso e di ogni età impiegate nella fabbrica di seta in Inghilterra e Galles nell' anno 1861 era:—

Maschi:	No.
Avendo meno di 13 anni . . .	2,120
13 a 18 anni . . .	3,185
Avendo più di 18 anni . . .	9,996
Totale . . .	15,301
Femine:	
Avendo meno di 13 anni . . .	4,673
Avendo più di 13 anni . . .	31,217
Totale . . .	35,890
Totale, maschi e femine . . .	51,191

Non vi sono rapporti del numero dei braccianti impiegati al tempo presente.

4. I salary nel negozio di seta di Manchester aumentarono 10 per cento fra gli anni 1849 e 1859; nell' ultimo anno i prezzi medii pagati agli operaj principali erano:—

	Per settimana di 60 ore
	s. d.
Mulinari e torcitori di seta . . .	17 0
Filatori (giovini e ragazzi) . . .	10 0
Addoppiatrici (donne) . . .	8 9
Orditori (uomini) . . .	24 0
Tessitori . . .	20 0

Fu osservato in un rapporto (fatto da un comitato locale all' Associazione Britannica (British Association) a Birmingham nell' anno 1865, che il numero delle persone impiegate nel negozio di nastro di Coventry era stimato essere 2,000 uomini, e 4,000 donne nel 1864, ancorchè la stima specialmente riguardando le donne era considerata essere al di sotto della verità. Il prezzo medio dei salary pagati nel negozio di nastri per un bracciante perito variava da 25s. a 28s. per settimana. I salary guadagnati dalle donne corrono da 7s. a 10s. per settimana.

5. Il valore delle manifatture di seta importate nel regno è cresciuto immensamente dopo l' anno 1860. Cotesta aumentazione è dovuta alla grande estensione del commercio tra questo paese e la Francia in conseguenza del trattato di commercio. Gli importi principali dalla Francia consistono di seta e raso semplice, stoffe larghe, e nastri.

Il valore totale delle manifatture di seta importate dal 1860 al 1865 era:—

	£
1860 . . .	3,344,000
1861 . . .	5,906,000
1862 . . .	6,618,000
1863 . . .	6,639,000
1864 . . .	7,620,000
1865 . . .	8,496,000

6. Il valore delle manifatture inglesi di seta esportate durante gli anni medesimi era:—

	£
1860	1,587,000
1861	1,395,000
1862	1,264,000
1863	1,421,000
1864	1,460,000
1865	1,404,000

7. Una porzione del commercio di nastri di seta è sempre condotta nelle dimore dei braccianti, ma la tendenza generale è verso il riunimento dei braccianti nelle fabbriche.

A motivo di molte cause, l'industria serica è forse la più fluttuante di tutte le industrie tessute. Il commercio di seta inglese, come quello degli altri paesi, ha sofferto immensamente da parecchi anni, per la malattia nei bachi da seta, e da un cambiamento nella moda che ha fatto una grande impressione sull'articolo nastri. Prendendo questi fatti in considerazione, le statistiche del traffico d'esporto di seta possono essere citate come dimostranti una posizione più soddisfacente dell'industria di seta inglesi, la quale potrebbe ancora migliorare, considerando le circostanze.

Cospicui miglioramenti sono stati introdotti nella finitezza e nei colori dei nastri inglesi, e di più è creduto che le mostre di cotesti e d'altre merci presentate all'attuale Esposizione farà manifesto il positivo progresso fatto nella manifattura inglese di seta generalmente dopo l'ultima Esposizione di Parigi nell'anno 1855.

Classe XXXII.

SCIALLI.

La fabbrica di scialli nella Gran Brettagna ha fatto un grande avanzamento durante i quindici anni passati. I scialli di lana sono fabbricati per lo più in Scozia, e nel Yorkshire. Paisley in Scozia è stata per molti anni rinomata per la qualità eccellente delle mercanzie di questa specie, e Bradford fabbrica ora scialli di stame in grande varietà. Scialli di seta sono fabbricati principalmente a Norwich.

Le specie principali di scialli importati sono quelli di Cashmere, dall'India, velo di crespò di seta dalla China, ecc., è scialli di lana principalmente dalla Francia.

Le cifre seguenti sono le statistiche delle mercanzie inglesi di questa classe di merce, esportate nell'anno 1865.

	Numero	£
Scialli di lana e stame	431,350	145,570
Fazzoletti, sciarpe e scialli di seta pura	129,560	235,825
	Dozzine	
Sudetti di seta con mistione di altre stoffe	15,513	16,461

Grandi migliorazioni nei disegni per i scialli sono state fatte dopo l'anno 1861, specialmente nelle mercanzie scozzesi. Paisley possiede una scuola d'arte, stabilita nel 1848, nella quale 1,063 studenti riceveranno istruzione nell'anno 1865.

Classe XXXIII.

TRINA, RETI, RICAMI, E FABBRICHE DI MERCERIE.

1. Il locale principale di trina fatta a macchina è a Nottingham e suoi dintorni. È anche fabbricata in Derbyshire a Tiverton, Barnstaple, e Chard. Le altre specie di trina sono fabbricate nelle provincie di Buckingham, Bedford, Oxford, e Northampton, e a Honiton e Limerick. Il negozio di mussolina ricamata è condotto in Scozia e in Irlanda.

Le statistiche seguenti del negozio di trina fatta a macchina nei distretti di Nottingham ed altri, nell'anno 1866 sono cavati da un rapporto fatto al Consiglio di Commercio (Board of Trade) dalla Camera di Commercio (Chamber of Commerce) di Nottingham.

	No.
Machina di forma circolare per fare l'imitazione di 'bobbin net' (sorta di trina fatta a mano)	1,797
Machina a lieva per fabbricare trine di fantasia	1,589
Machina a lieva specie	166

Delle 1,797 macchine di forma circolare soprascritte, 700 erano adoperate a Nottingham e la sua vicinanza, 500 in Derbyshire, 200 a Tiverton, 100 a Barnstaple, e 300 a Chard. Tutte le macchine 'a lieva' e quelle 'diverse' lavoravano nel distretto di Nottingham.

2. Le fonti che forniscano le materie greggie usate in questo negozio sono notate nelle osservazioni a Classe 27 e 31.

3. Il numero delle persone impiegate in questa industria a Nottingham e nel suo distretto è circa 38,000 persone, senza contare le ragazze giovanissime che sono impiegate nelle case di 'padrone' (spesso colle loro madri), in diversità di lavoro dai magazzini, ecc.

Secondo il rapporto dei giurì sulla Classe 24a all'Esposizione di Londra nel 1862, la trina fatta a mano da impiego a circa 25,000 donne e bambini, le quali sono impiegate nel lavoro alle loro case; e la manifattura di mussolina ricamata, quando è in pieno movimento, non impiega meno di 200,000 persone in Irlanda e a 25,000 persone in Scozia, le quali lavorano anche a casa loro.

4. Il prezzo medio dei salari pagati alla classe principale dei braccianti nel distretto di Nottingham nel 1866 era:—

	Salari per settimana	Ore di lavoro per giorno
Uomini:		10½
Ragazzi	5s.	
Giovinotti	16s.	} Ogni macchina, di regola, im- piega due uc- mini, che lavo- rono, a scam- bio da 9 a 10 ore ciasche- duno per gior- nata
Uomini	25s.	
Braccianti di prima classe }	35s. a 50s.	

Uomini :	Salarij per settimana	Ore di lavoro per giorno
Direttori delle macchine	35s.	10 $\frac{1}{2}$
Donne :		
Da 7 anni, rammenda- trici e infi- latrici	4s. a 8s.	Ore variabili
Rammenda- trici e pie- gatrici di bianco	9s. a 12s.	Nelle fabbriche 10 $\frac{1}{2}$
Saldatrici	10s.	In magazzini dalle 8 a.m. insino alle 7 p.m.
Soprastanti e magazzi- nieri supe- riori	13s. a 15s.	

Le ragazze dell'età di anni sette impiegate come rammendatrici lavorano principalmente alle loro dimore.

Il lavoro casuale è generalmente pagato di più.

5. La tavola seguente fa vedere il valore di trina e di ricami importati nella Gran Bretagna nell'anno 1865:—

Trina :	£
Di mohair o stame	256
Trina fatta a mano di lino o cotone	78,861
„ „ „ seta	18,855
„ „ „ macchina	69,734

Ricamo a lavoro d'ago :

Tende ricamate sul mussolino o sulla rete	16,115
Di altre sorte	41,970

Trina fatta a mano ed importata per il più dal Belgio, e trina fatta a macchina dalla Francia.

6. L'esportazione degli articoli della produzione Britannica compresi in questa classe durante il medesimo anno era:—

Trina di cotone e rete 'patente'	£ 465,611
„ lino	322
„ seta pura	63,351
„ „ mista d'altre materiali	84,314

Ricamo e lavoro fatto all'ago di ogni specie 174,670

7. Delle divisioni del lavoro condotte a mano ed a macchina abbiamo già parlato.

8. Il Signor Birkin, nel suo rapporto sul progresso della trina fatta a macchina nel 1862, dice che 'lo stile di lavoro ed i disegni generalmente hanno molto migliorato, e che disegni di miglior gusto sono fatti ora che prima. Questo, senza dubbio, è stata avanzata dalla facilità che il telajo "Jacquard" ha dato alle macchine di trina, e dal gusto più esatto diffuso fra i disegnatori di ogni specie, dalle scuole d'arte.' Una scuola d'arte ha esistito dopo l'anno 1843.

Un progresso considerevole è ancora stato fatto nella fabbrica di tende di trina.

Classe XXXIV.

CALZETTERIA, BIANCHERIA, ED ARTICOLI APPARTENENTI A QUESTI RAMI DI COMMERCIO.

1. La fabbrica di calze è condotta principalmente nelle provincie di Nottingham, Leicester, e Derby, e in qualche città nelle altre provincie d'Inghilterra; a Balbriggan in Irlanda; ed a Hawick, Galashiels, ecc., in Scozia. Nottingham fornisce mercanzie di cotone e di seta, Derby principalmente seta, e Leicester articoli di lana.

Le statistiche della manifattura di Nottingham, come erano rapportate dalla Camera di Commercio della sopradetta città al Consiglio di Commercio di Londra per l'anno 1866 erano le seguenti:—

	No.
Telaj a mano piccoli	11,000
„ „ „ grandi	4,250
„ „ „ rotanti	1,000
'Sets,' telaj di forma circolare	1,200
Orditoj	400

Non vi sono rapporti recenti di ciascuna specie di macchina adoperata a Leicester, ma è stimato dalla Camera di Commercio di quella città che i telaj piccoli di vecchia forma sono stati abbandonati per i telaj larghi; ancorchè il numero dei telaj di forma circolare, che sono usati principalmente per merce a buon mercato, cresce velocemente. L'aumento della popolazione totale nel distretto di Leicester, che nell'anno 1861 non ammontava a più di 67,000 persone e nel 1866 raggiunse la cifra di 80,000, indicherà in qualche modo il progresso che si sta facendo nelle fabbriche del distretto.

Gli ultimi rapporti per Derby e la Scozia sono quelli pubblicati nel 1861, nel qual tempo vi erano quattro fabbriche di calzetteria a Derby e quattro nella Scozia.

Le confezioni di guanti e di ombrelle sono tutte due d'importanza considerabile, benché non vi siano rapporti della produzione attuale di questi articoli. Questi sono fabbricati principalmente a Worcester, Leicester, Nottingham, e in Londra. Grandi ramificazioni del negozio di ombrelle sono locate in Lancashire e nella metropoli; e la fabbrica d'ossature di ombrelle è condotta estensivamente in Birmingham.

2. Le fonti dalle quali viene il materiale greggio adoperato nel negozio di calzetteria, si trovano osservati nelle note alla Classe 27, 31.

3. Il numero delle persone impiegate nel negozio di calzetteria nel distretto di Nottingham e sue vicinanze è circa 64,000 persone. Non vi sono rapporti del numero delle persone ora impiegate nella ramificazione di questo negozio a Leicester, ma secondo il censo del 1861, 22,000 braccianti erano impiegati in ciò in quell'epoca.

Il prezzo medio dei salarij pagati ai braccianti

nel negozio di calzetteria a Nottingham e Leicester nell' anno 1866 erano :—

A NOTTINGHAM.

Lavorando a—	Per settimana
Telaj a mano { Uomini, donne, e gio-	
piccoli . . { vinotti . . .	10s. 6d.
Telaj a mano { Uomini . . .	15s.
grandi . . { Donne e ragazzi . .	4s.
Telaj rotanti { Uomini . . .	20s. a 32s.
Donne e ragazze . .	5s.
Telaj di for-	
ma circolare { Uomini . . .	20s. „ 35s.
Giovinotti e donne . .	12s. „ 20s.
Donne e ragazze (rammendatrici)	7s. „ 12s.
Orditoj . . { Uomini . . .	16s. „ 35s.
Giovinotti . .	12s. „ 20s.

I telaj grandi e piccoli erano in movimento di lavoro distribuiti in 4,700 magazzini, per la più parte, tre o quattro per ogni magazzino, i magazzini facendo parte delle dimore dei braccianti. I lavoratori delle altre macchine sono impiegati per il numero usuale delle ore nelle fattorie :—

A LEICESTER.

	Per settimana di 60 ore
Calzetteria semplice e vestiario bianco:	s. s.
Lavorando a telaj piccoli (uomini)	9 a 15
„ „ grandi . . .	20 „ 30
„ „ di forma circolare (donne)	12 „ 20
Calzetteria di fantasia e vestiario bianco:	
Braccianti ordinarij (uomini)	14 „ 28
„ abili „ . . .	20 „ 35

La condizione generale dei braccianti in costeti negozj è stata considerabilmente migliorata durante gli anni passati.

5. Il valore degli articoli principali inclusi in questa classe importati nella Gran Brettagna nel 1866 era :—

Calzetteria di cotone . .	£ 70,502
„ seta . . .	18,480
Fascette . . .	8,890
Ombrelle e parasoli (seta)	4,722
Canne e bastoni . . .	85,200

6. Il valore degli articoli principali di produzione inglese delle medesime specie esportate nel 1865 era :—

Calzetteria, vestiario bianco, guanti, ecc.:	£
Di cotone . . .	453,837
„ lino . . .	20,091
„ seta . . .	26,698
„ lana . . .	307,782
Ombrelle e parasoli . .	160,177

7. Una proporzione considerabile del negozio di calzetteria è fatta a mano, ma le produzioni a macchina crescono annualmente in quantità, qualità, e prezzo basso.

8. L' estensione della domanda indigena per gli articoli compresi in questa classe, in sovrappiù alla domanda delle colonie ha condotto a un gran progresso e migliorazione in coteste ramificazioni d'industria nazionale. Una delle riuscite le più importanti e recenti a Nottingham è stata la produzione di calze perfettamente formate, ed altre specie di vestiario fatte sulle macchine. I colori della calzetteria di fantasia son' stati anche grandemente migliorati.

Classe XXXV.

VESTIARIO PER I DUE SESSI.

Non è necessario d'osservare che il vestiario di ogni specie è prodotto in più o meno quantità in tutte le città e nei villaggi del paese intero. Vi sono, però, tre industrie importanti comprese in questa classe, cioè, la fabbrica di cappelli da uomo, cappelli da donna, e stivali e scarpe, le quale avendo locali speciali di produzione, saranno notate brevemente. Riguardando il vestiario che appartiene a varie professioni e negozj, la diversità di vestito marcando le classi particolari della comunità e, salvo poche eccezioni, sparito in Inghilterra. I costumi nazionali di Galles, Scozia, e l'Irlanda sono in qualche modo portati, ma la tendenza generale del mezzo e basso ceto del popolo è d'imitare lo stile delle loro superiori in materia di vestiario; la differenza principale nel loro costume essendo la moda della forma, e la qualità del materiale dal quale è formata. Non c'è un altro paese nel mondo, eccettuando forse l'America, nel quale la classe dei braccianti si vesta così bene e d'una maniera così costosa come nella Gran Brettagna.

Cappelli d' uomo sono fatti in Londra, a Manchester, e sua vicinanza, e in altre parti di Lancashire, Cheshire, Edimburgo, Glasgow, ecc. Il traffico di trecciar la paglia, e che fornisce il materiale greggio per cappelli o berrette di paglia, è condotto per il più a St. Albans, Dunstable, Tring, e qualch' altri locali in Inghilterra. La fabbricazione di stivali e scarpe è esercitata su vasta scala a Northampton, Norwich e Leicester. Questa ultima città fabbrica specialmente all' ingrosso una grande quantità di stivali inchiodati invece di essere cuciti, e dà impiego a qualche migliajo di braccianti.

Il numero seguente è quello delle persone impiegate in alcune delle ramificazioni principali del commercio in rapporto colla manifattura di vestiario nell' anno 1861 :—

Negozi	In Inghilterra e Galles	In Scozia	In Irlanda
Sarti :			
Uomini . . .	109,004	17,276	22,523
Donne . . .	27,386	473	932
Totale . . .	136,390	17,749	23,455
Modiste :			
Uomini . . .	803	31	—
Donne . . .	286,298	33,066	50,854
Totale . . .	287,101	33,097	50,854
Fabbricanti di cappelli e berrette :			
Uomini . . .	11,502	707	886
Donne . . .	7,911	1,697	719
Totale . . .	19,413	2,404	1,605
Fabbricanti di cappelli tondi e chiusi di paglia :			
Uomini . . .	1,740	313	15
Donne . . .	22,245	1,336	1,543
Totale . . .	23,985	1,649	1,558
Trecciatori di paglia :			
Uomini . . .	2,128	1	6
Donne . . .	27,739	30	162
Totale . . .	29,867	31	168
Fabbricanti di stivali e scarpe :			
Uomini . . .	211,233	26,786	41,207
Donne . . .	39,358	2,093	5,329
Totale . . .	250,591	28,879	46,536

Il numero delle donne impiegate nella fabbrica di stivali e scarpe non include le mogli dei calzolaj, le quali spessamente ajutano i loro mariti in qualche divisione del lavoro. Il numero totale delle mogli dei calzolaj nella Gran Bretagna fu stimato a 90,970.

Il prezzo medio dei salari pagati nel negozio di stivali e scarpe a Leicester nell'anno 1860 era :—

	Per settimana di 60 ore	
	s.	d.
Lavoratrici alle macchine . . .	12	0
Provatori . . .	11	0
Inchiodatori (uomini) . . .	22	0
Finitori . . .	30	0
Tagliatori . . .	23	6

Cinquanta per cento della fabbrica è fatta da donne.

Non vi sono statistiche recenti del negozio di Northampton, ma, secondo il censo del 1861, circa 20,000 persone erano impiegate nel negozio di stivali e scarpe in quell'anno.

Il prezzo medio dei salari pagati nella manifattura di cappelli alle città sottoscritte nel 1866 era :—

Fabbricanti di cappelli di seta	A Bristol	Ad Edimburgo	A Glasgow
	Per settimana	Per settimana	Per settimana
	s. d.	s. d.	s. d.
Fabbricanti diguscj . . .	25 0	33 0	34 0
Finitori di seta . . .	25 0	30 0	36 0
Finitori di tesi . . .	30 0	39 0	40 0
Ore di lavoro per giorno . . .	8	12 a 15	10

Il valore degli importi e degli esporti di cappelli tondi, cappelli chiusi, ecc., e di stivali e scarpe nel 1865 era :—

Importi.

Cappelli tondi e chiusi :	£
„ di paglia . . .	556,065
„ di feltro . . .	35,812
Paglia trecciata . . .	102,886
Treccie di altre specie . . .	30,225
Stivali e scarpe . . .	104,693

Esporti (Produzione Inglese).

Cappelli tondi :	£
„ di feltro . . .	280,851
„ di seta . . .	25,909
„ di paglia . . .	166,599
„ altre specie . . .	10,235
Mercanzie . . .	70,343
Treccie di paglia ed altre . . .	49,996
Stivali e scarpe . . .	1,462,105

La Francia fornisce la più gran parte delle mercanzie importate in Inghilterra, e le colonie di Australia sono i consumatori principali delle mercanzie inglese esportate.

C'è anche un gran negozio d'esportazione in vestiario, e in abiti per marinari ed ingegneri dalla Gran Bretagna, il di cui ammontare nell'anno 1865 fu di :—

	£
Vestiario nuovo e vecchio . . .	1,933,000
Abiti per marinari, ingegneri, e negri . . .	706,000
Totale . . .	2,639,000

Circa la metà di cotesti esporti eran per le colonie di Australia.

Classe XXXVI.

GIOIELLERIA E PIETRE PREZIOSE.

La manifattura di gioje e di gioielleria falsa nella Gran Bretagna è di grande importanza; la fabbrica della prima è principalmente nella metropoli e della seconda a Birmingham. A causa della ricchezza aumentata della popolazione negl'anni recenti, la richiesta nostrale per questa specie di mercanzia è stata grandissima. Non vi sono rapporti della produzione delle qualità superiori di gioje. Il valore dell'oro, del argento e delle pietre preziose usati ogni anno nel commercio di Birmingham è stimato a circa un milione e un quarto di lire sterline. Il numero delle persone impiegate nella ramificazione del commercio a Birmingham

ham è quasi 7,500, e la quantità media della
paga guadagnata dai gioiellieri è 25s. a 50s.
per settimana. Gli smaltatori guadagnano
3l. a 5l. per settimana; ragazzi 4s. a 11s.

Il numero delle persone (eccettuati lavoratori) che sono impiegate nella metropoli nel mestiere di gioie al tempo presente monta a:—

Gioiellieri	484
Gioiellieri e orefici	159
Cesellatori	41
Fabbricanti di cassette per gioie	36

Il valore della gioielleria importata nella Gran Bretagna nel 1865, principalmente dalla Francia e dal Belgio, montò a 87,981*l.*, e di pietre preziose (eccettuati diamanti) 32,000*l.* Il valore della gioielleria di fabbrica inglese esportate nel medesimo anno fu:—

Gioielleria, ecc., d' argento e d' oro	94,313
„ „ d' altre sorta	69,918
	<hr/>
	164,231

C'è stato un forte aumento durante i venti anni passati nel valore di pietre preziose.

Il meccanismo e la forza del vapore è usato in alcune ramificazioni del mestiere di gioielleria, che hanno fornito mezzi al fabbricante di fare una diminuzione vistosa nel prezzo delle sue merci.

Il Sig. J. S. Wright, nel suo rapporto sul mestiere gioielleria di Birmingham, osserva che non sarebbe giusto di non fare menzione della scuola d' arte stabilita in questo paese, la quale ha contribuito molto a sviluppare il talento artistico nei gioiellieri di quel luogo. Molte centinaia di lavoratori sono stati educati in quella scuola. I risultati dell' istruzione che hanno ricevuto saranno anche più notevoli fra qualche tempo.

Classe XXXVII.

ARMI PORTATILI.

1. La manifattura delle armi piccole è esercitata a Enfield (lo stabilimento governativo), a Birmingham e in Londra. Baionette, 'matchets' e spade sono fatte principalmente a Birmingham, le ultime da pezzi d'acciaio chiamati 'matrici di spada,' le quali sono fatte a Sheffield. La più gran parte d'armi da fuoco fatte per esportazione è prodotta a Birmingham. I manifattori di Londra sono rinomati per il lavoro e la finezza di carabine e fucili da caccia di prima classe. L'Associazione per Armi Piccole a Birmingham e la Compagnia d'Armeria di Londra tutte due fanno armi pell'uso del governo.

2. Il legno usato per casse da fucile è il faggio, che cresce principalmente in Gloucestershire e Herefordshire; e noce, la quale è importata dall'Italia e dalla Germania. Il ferro adoperato per fabbricare le canne di fucile domanda una cura straordinaria nel prepararlo, e gli operaj di

Birmingham hanno ottenuto un alto grado di perfezione in questa manifattura.

3. Il numero dei lavoratori impiegati alla fattoria del governo, quando stà in pien lavoro, è circa due mila. La ramificazione di Birmingham è stimata di dare occupazione a più di sette mila operaj. Il negozio di Londra impiegò circa due mila persone nell' anno 1861.

Il numero totale di persone impiegate come armajuoli, o manifattori di fucili, nel 1861, secondo il censo, fu:—

In Inghilterra e Galles	. 11,873
„ Scozia . . . .	. 204
„ Irlanda . . . .	. 256
	<hr/>
Totale	. 12,333

4. Secondo un rapporto fatto dalla Camera di Commercio a Birmingham al Consiglio di Commercio nel 1866, la rata media di salarij nel negozio d' armi fluttuava come segue :—

		Per settimana di 60 ore
		s. s.
Maschi—Uomini	.	12 a 60
„ Giovini	.	3 „ 15
Femine—Donne	.	6 „ 12
„ Ragazze	.	3 „ 4 e mezzo

Il Sig. Goodman, Direttore della Compagnia per Armi Piccole a Birmingham, in un rapporto fatto all' Associazione Britannica nel 1866, diceva che durante i dieci anni passati, c' era poco dubbio che i salarj guadagnati nel negozio d' armi avevano trapassato quelli di qualunque altro negozio, e che i lavoratori in certe ramificazioni che domandano gran perizia, guadagnano, quando sono a pien lavoro, sino a cinque o sei lire sterline per settimana.

5. Il valore di armi a fuoco ed armi bianche di tutta specie importate nella Gran Bretagna nell'anno 1865 montò a 243,699%, del quale 192,000% dal Belgio. L'importazione totale di legno di noce fu tonnellate 5,689, e di casse da fucile non finite 5,204 quintali (cwts.). Più che trentotto milioni capsule a percussione furono anche importati.

6. Qui segue il rapporto ufficiale del numero e del valore di armi piccole nostrali esportate dal Regno durante i cinque anni 1861-1865:—

	No.	Valore in lire sterline
1861	315,000	515,000
1862	702,000	1,573,000
1863	439,000	856,000
1864	254,000	348,000
1865	291,000	424,000

Gli esporti grandi al cominciamento del periodo citato furono cagionati per la chiesta negli Stati Uniti. Il Sig. Goodman crede che questi rapporti danno meno che il valore attuale del negozio d' esporto britannico, a motivo che un gran numero, specialmente di fucili da caccia di ottima qualità, son mandati fuori del paese senza esser registrati alla dogana.

Le specie principali d' armi a fuoco, ecc., esportati nell' anno 1865 furono:—

	No.
Fucili	173,173
Carabine	85,322
Fucili da caccia	15,505
Revolvers	8,601
Pistole, ecc.	8,994
	£
Spade, sciabbole, baionette, ecc.	4,538
	Milioni
Capsule a percossione	284,895

7. Si serve ora di meccanismo nella manifattura di tutte le parti d' armi a fuoco, e pel suo ajuto il fabbricante inglese è posto in grado di competere felicemente co' manifattori nei paesi esteri, i quali, a causa del più vil prezzo del lavoro a loro disposizione, potrebbero vendere a miglior mercato in tutti i mercati del mondo.

8. Le migliorazioni che hanno avuto luogo negli ultimi tempi nella costruzione d' armi piccole son tanto bene conosciute che una allusione su questa materia è appena necessaria. Il più importante dei cambiamenti recenti è l' introduzione generale del caricare per la culatta.

Vi son molte ramificazioni del negozio nelle quali un lavorante artistico può trovare campo libero per i suoi talenti, e nelle quali i manifattori inglesi già mostrano un gusto considerevole. Però i lavoratori inglesi che visiteranno l'Esposizione presente faranno bene d'istruirsi per mezzo degli oggetti esposti dagli armajuoli di Parigi, le loro mercj essendo rinomate per la bellezza artistica delle loro decorazioni.

Classe XXXVIII.

APPARATI DA VIAGGIO ED EQUIPAGGI DA SOLDATI.

La manifattura di bauli, sacchi da viaggio, ed altri articoli compresi in questa classe forma

una industria di massima importanza, ma non vi sono mezzi di conoscere la quantità attuale. Nuove specie di bauli si vedono quasi giornalmente destinate ai diversi bisogni dei gradi numerosi di viaggiatori. Un grande perfezionamento è stato fatto nella fattura dei sacchi da viaggio durante gli ultimi dieci anni. La manifattura di coperte da viaggio e involti da strada ferrata (railway wrappers) è condotta a Dewsbury e Huddersfield, ed è divenuta a quest' ora una ramificazione grande del commercio di lana. L' uso di tende nel Regno Britannico, all' eccezione di quelle destinate all' utilità agricola, è limitato di molto, la manifattura principale essendo pel servizio delle truppe a stazioni estere.

Classe XXXIX.

GIOCARELLI.

Molte specie di giocarelli (sopra tutto bambole di cera) sono fatti estensivamente nel Regno Britannico, ma per ragione delle particolarità del commercio di giocarelli, è impossibile di conoscere il valore della produzione annua di questi articoli.

Il numero dei fabbricanti occupati nel commercio di giocarelli in Londra (ad eccezione dei lavoratori) è:—

Fabbricanti di giocarelli	44
Negozianti „ „	153
Fabbricanti di bambole	19
„ di cavalli tentennanti	8

Gli importi di giocarelli esteri sono aumentati di molto dopo l' anno 1850, essendo cresciuti da 46,130/. a 163,024/. nell' anno 1865.

GRUPPO V.

(CLASSI XL.—XLVI.)

PRODOTTI (GREGGI E LAVORATI) DELL' INDUSTRIA DI
MINIERA, DI SELVA, ECC.

Classe XL.

MINIERE E METALLURGIA.

1. QUESTA classe costituisce la più importante ramificazione delle produzioni indigeni. Ha origine principalmente dall'abbondanza della sua ricchezza minerale, e più specialmente dalla felice combinazione della produzione di carbon di terra e ferro nelle medesime località, circostanza che ha posto l'Inghilterra nell'alta posizione di potenza manifatturiera. Il sviluppo rapido di strade ferrate e di navigazione a vapore devono anche attribuirsi alle medesime circostanze. Gli estratti seguenti della produzione dei minerali e metalli nel Regno Britannico nell'anno 1865, sono presi dai rapporti ufficiali compilati dal Signor Robert Hunt, il custode dei registri delle miniere:—

Dove prodotto	La Quantità prodotta
Durham e Northumberland . . .	25,032,694
Cumberland	143,047
Yorkshire	9,355,100
Derbyshire	4,595,750
Nottinghamshire	1,095,500
Leicestershire	965,500
Warwickshire	859,000
Stafford e Worcestershire . . .	12,200,989
Lancashire	11,962,000
Cheshire	850,000
Shropshire	1,135,000
Gloucestershire, Somerset, e Devon- shire	1,875,000
Monmouthshire	4,125,000
South Wales	7,911,507
North Wales	1,983,000
Scotland	12,650,000
Ireland	123,500
Totale	98,150,587

Diffalcate 9,000,000 di tons esportate, e quasi 20,000,000 adoperate nelle manifatture dei pani e stanghe di ferro, ecc., vi resta circa 60,000,000 di tons, la consumazione nostrale per l'uso domestico ed altri, o il ragguaglio annuale di carbone prodotto negli ultimi dieci anni terminando col 1865 era 84,960,000 tons.

FERRO NON RAFFINATO.—La produzione intera di questo minerale nell'anno 1865 montava a 9,910,000 tons. È stato estratto in venti provincie inglesi, i più grandi redditi

essendo dal North Riding di Yorkshire, Cumberland, e Staffordshire, e pure nella provincia di Galles, in Scozia, ed in Irlanda.

PANI DI FERRO RAFFINATO.—La fattura intera dei pani di ferro nell'anno 1865 era 4,819,000 tons; il catalogo seguente fa vedere i siti principali di manifattura:—

Divisione e Contea	No delle Fabbriere	No. dei Fornari Fabbri- cati	No. dei Fornari soffianti	Tons di Pani di Ferro prodotti
Inghilterra:				
S. Staffordshire . . .	64	172	114	692,627
York: N. Riding . . .	14	65	53	486,421
Durham	19	65	47	476,767
N. Staffordshire . . .	8	35	27	206,268
Lancashire	6	24	16	204,925
Derbyshire	15	41	34	189,364
York: W. Riding . . .	14	38	29	123,293
Shropshire	11	29	23	117,343
Cumberland	4	16	9	107,430
Altre divisioni . . .	21	42	24	134,489
Somma totale	176	527	376	2,738,867
Provincia di Galles:				
Glamorganshire . . .	18	81	64	408,410
Monmouthshire . . .	10	63	45	357,656
Altre divisioni . . .	21	63	31	150,837
Somma totale	49	202	140	916,909
Scozia:				
Lanarkshire	15	101	84	1,163,478
Altre divisioni . . .	17	79	57	
Somma totale	32	180	141	

La lista seguente segna i numeri delle fonderie e mulini nell'anno 1865 che erano occupati nella produzione del ferro compiuto:—

Divisione e Contea	No. delle Fabbri- che	No. di Fornaci	No. dei Lami- toj
Inghilterra:			
S. Staffordshire . . .	118	2,116	224
Durham	16	688	61
Yorkshire	30	922	115
Altre contee	34	903	113
Somma totale	198	4,629	513
Provincia di Galles:			
Scozia	39	1,395	170
	15	383	47
Somma totale	252	6,407	730

Non ci sono redditi della produzione intera del ferro compito nel Regno Britannico. Il Sig. J. Jones, in un rapporto all' Associazione Britannica a Birmingham, nell' anno 1865, stimava la produzione annuale del distretto di Staffordshire a 855,000 *tons*, e la produzione delle fabbriche di ferro in relazione colle miniere di carbone di Northumberland e Durham è stimata a circa 300,000 *tons* per anno.

La manifattura di acciaio si fa di molto in campagna, sopra tutto a Sheffield ed anche in Staffordshire e Northumberland, ma non vi sono statistiche del prodotto totale.

La produzione stimata a Sheffield nell' anno 1862 era 79,000 *tons*, di acciaio 'blistered,' e 52,000 *tons* di acciaio gettato.

PIOMBO.—La quantità del metallo estratto era 90,450 *tons*, e del piombo prodotto 67,181 *tons*. Il piombo è prodotto in ciascuna divisione del regno; la provvista più grande nell' anno 1865 era estratta dalle miniere in Durham e Northumberland.

RAMÈ.—198,298 *tons* di questo metallo furono estratte principalmente nelle contee di Cornwall, Devonshire e Cheshire; e 11,888 *tons* di rame furono prodotti nel Regno Britannico nell' anno 1865.

STAGNO.—Questo minerale si trova in Cornwall e Devonshire, e la quantità del minerale estratto nel 1865 fu 15,686 *tons*. 10,039 *tons* di stagno puro furono prodotti nel medesimo anno.

Zinco, pirite, piccole quantità d' argento ed oro, ed anche diverse specie di minerali terrosi sono prodotti nel Regno Britannico, come pure pietre da fabbricare ed argilla, in gran quantità. Sale è prodotto in Cheshire, in Worcestershire, anche in Irlanda. Le fabbriche di sale a Cheshire sono capaci di produrre 1,000,000 *tons* per l' anno. La produzione delle fabbriche di Worcestershire è di circa 200,000 *tons* d' anno in anno. La produzione del sale in Irlanda è comparativamente di piccolo grado.

Il valore intiero delle produzioni minerali del Regno Britannico nell' anno 1865 è esposto come segue:—

	Libre
Metalli	15,773,000
Carbone	24,538,000
Minerali terrosi . .	1,434,000
Libre sterline . .	41,745,000

Il valore di sale, argilla, e pietre da fabbricare non è compreso nelle cifre di sopra.

Sarebbe impossibile il dare un schizzo dei commercj importanti e numerosi in connessione con questa classe nel breve spazio accordato a queste osservazioni. Si può dire solamente che il negozio di chincaglieria di ferro è centralizzato principalmente a Birmingham, Wolverhampton, Walsall e Sheffield; la manifattura di oggetti in rame e ottone a Birmingham e Bristol; mercanzie argentate per elettricità a Sheffield e Birmingham; aghi e ami a Redditch; e spille a Birmingham; fili

metallici a Birmingham, Sheffield, Manchester, ecc., ed anche arnesi da tagliare a Sheffield.

2. I materiali grezzi adoprati nelle manifatture di metallo nel regno sono tirati principalmente dai prodotti nostrali. Una certa quantità però di minerali e di metalli è importata d' anno in anno. La tavola aggiunta mostra i numeri delle descrizioni principali importate nell' anno 1864:—

Articoli	Quantità	
	Tons	
Rame non raffinato	82,562	
Rame <i>Regulus</i>	39,686	
Rame non lavorato lavorato in parte	21,717	
Ferro non raffinato	76,977	
„ pani	11,380	
„ stanghe	51,464	
Acciajo	6,777	
Piombo non raffinato	5,584	
„ pani e lastre	34,903	
Argento non raffinato	6,587	
Stagno non raffinato	639	
„ puro, stanghe, ecc. . . .	5,698	
Zinco in forme	22,193	
„ laminato	8,492	

Il Chili forniva la più gran parte di rame non raffinato e *regulus*; la Spagna, la Francia, e la Svezia, pani e stanghe di ferro ed acciaio; l'Italia, piombo non raffinato; la Spagna, pani e lastre di piombo; e le colonie olandesi nell' Arcipelago Orientale, dello stagno. Il zinco era importato principalmente dal Belgio, dall' Olanda, d' Amburgo e dalla Prussia.

3. Il numero dei maschi impiegati nelle miniere di carbon fossile del Regno Britannico nell' anno 1865 erano 315,000. La rata di salarj pagati ai minatori, ed anche ai tagliatori di carbon fossile, adulti, a Newcastle nell' anno 1866 era 5s. 9d. al giorno di 7 ore. I salarj degl' adulti nelle altre occupazioni in relazione colle miniere di carbone variano di 3s. a 5s. al giorno; per ragazzi 1s. a 3s. al giorno. I guadagni netti per testa nel negozio di ferro in Staffordshire sono calcolati a circa 28s. a 30s. alla settimana, benchè alcuni lavoratori guadagnano da 2l. sterline a 4l. sterline. In Glasgow i fonditori di ferro, adulti, ottenevano 29s. alla settimana di 60 ore nell' anno 1866; i ragazzi 4s. a 16s.; per le altre occupazioni in fonderie 15s. a 25s. Nel negozio di ottone a Birmingham, fabbri e stagnatori 21s.; fattori di modelli 33s.; e stipettaj nei lavori di macchinista, 30s. alla settimana di 58 ore. I serraglieri di cassetine 40s. Nel negozio di arnesi taglienti a Sheffield nel anno 1866:—fabbri 31s. a 36s.; battitori 21s. a 24s.; arrotini 45s. a 50s.; e indoratori 24s. a 28s. alla settimana di 42 ore. Non vi sono rapporti pubblici dei numeri delle persone impiegate nei mestieri di sopra, e per la ragione della grandiversità delle loro occupazioni, non è quasi possibile di formarsi una idea giusta.

Il numero totale delle persone impiegate in relazione colle manifatture di miniera e di metallo nel Regno Britannico nel anno 1861 era circa 1½ milioni di individui. Lo stato dei

minatori è adesso un soggetto d'una cura molto più grande per parte dei padroni che non era prima, e la maggior parte dei proprietari di miniere e di fattorie di metallo non solamente provano di migliorare la salute e conforto dei loro lavoranti, ma fanno di molto per incoraggiare l'educazione dei loro figli e generalmente di contribuire al ben essere ed alla prosperità delle loro famiglie.

4. Il valore totale delle manifatture di metallo importate nel Regno Britannico nell'anno 1865 era meno d'un mezzo milione. La parte principale delle importazioni consiste di mercanzie di ferro, principalmente dal Belgio e dall'Olanda.

5. La tavola seguente fa vedere la quantità degli articoli principali dei prodotti britannici compresi in questa classe esportati fuori dal Regno Britannico nell'anno 1865:—

Articoli	Quantità
Carbon fossile e coke . . . tons	9,170,000
Rame e mercanzie . . . cwts.	632,000
Ottone "	44,000
Mercanzie di ferro . . . £	3,924,000
Ferro in pani tons	547,000
" in stanghe "	254,000
" da strada ferrata . . . "	434,000
" altre specie e mercanzie . . . }	357,000
Acciajo "	24,000
Piombo "	27,000
Merci in placche . . . £	112,000
Sale tons	579,000
Stagno cwts.	104,000
" in lamine . . . £	1,481,000
Zinco cwts.	89,000

Il valore totale degli articoli di sopra eccedeva più di 28 milioni di sterline

6. Non è possibile di distinguere le divisioni dei commerci come sopra, i quali sono effettuati a mano ed a meccanismo. Lo scopo generale però è di sostituire le macchine in vece del lavoro manuale in qualunque luogo praticabile.

7. Il progresso nell'industria di miniere del Regno Britannico dopo la data dell'ultima Esposizione a Parigi potrebbe esser raccolto dalla produzione aumentata di minerali e metalli nell'anno 1865 a paragone dell'anno 1855. Il prodotto di carbon fossile cresceva 95 per cento in questo tempo; pani di ferro 50 per cento; stagno, 66 per cento; piombo 3 per cento; frattanto il rame cadeva a 44 per cento.

Grandi miglioramenti sono stati fatti nelle mercanzie di ferro della Gran Bretagna dopo l'anno 1851, la più gran parte se non tutto delle quali, si può dire avevano o direttamente o indirettamente la loro origine nell'Esposizione Industriale tenuta a Londra in quest'anno. Il lavoro principiato all'Esposizione fu seguito dal Dipartimento di Scienza ed Arte, e coi mezzi dell'esposizioni locali e dell'istruzione accordata alle Scuole d'Arte, stabilite nei centri dei distretti di manifattura, un avanzamento grandissimo nel disegno e nello stile delle merci inglesi si è manifestato chiaramente.

Il giuri sulle mercanzie di ferro all'Esposi-

zione dell'anno 1862 rapportò essere felice d'aver verificato da una parte e l'altra un miglioramento in quasi tutti gli oggetti esposti. S' incontra gran nettezza e regolarità nelle forme delle mercanzie di poco prezzo. Molto più abbellimento è sviluppato in questi articoli, i quali sono d'utilità ed anche di ornamento, ed un tipo più alto dell'arte è stato ottenuto nel lavoro di metallo più fine adoprato per l'uso domestico e per le decorazioni ecclesiastiche.

Classe XLI.

PRODOTTI DELLA COLTIVAZIONE DELLE SELVE E DEI MESTIERI APPARTENENTI A QUESTA INDUSTRIA.

A paragone delle selve straniere, quelle del Regno Britannico sono di piccola estensione. Il valore annuale della produzione di legname d'opera ed altre specie di legno è stimato a circa due milioni di sterline. La quercia, benchè non sia la più abbondante, è la più importante e preziosa degli alberi britannici, ed è coltivata largamente nelle selve reali.

La produzione nostrale di legname d'opera è molto al di sotto della domanda, e grandi importazioni son fatte annualmente dall'estero. Molt'altre produzioni di selva, che non crescono nel paese, sono anche adoperate in gran quantità. La tavola seguente mostra gli importi principali di tali articoli nell'anno 1865:—

Articoli	Quantità
Ceneri cwts.	144,000
Scorza da conciare o da tingere }	431,000
Sughero "	122,000
Sugheri, già tagliati . . . libbre	2,012,000
Noce di galla cwts.	16,000
Sumach tons	13,000
Terra japonica "	16,000
Valonia "	20,000
Legna e legname d'opera : Non segata o non spaccata, (compreso tece) . . . }	carichi 1,686,000
Asse di abete, tavolette sottili, ecc., segate o spaccate }	" 2,136,000
Quadrelli "	67,000
Legna da fuoco "	180,000
Cerchj "	8,000
Assicelle "	105,000
Legname da tinta . . . tons	14,000
Legno duro "	68,000

Il valore totale degli articoli sopradetti montava a 15,888,000 sterline. Una quantità piccola di legname d'opera dell'estero è esportata di nuovo, ma non è d'una importanza abbastanza grande per esser notata.

Ceneri di ranno furono ottenute principalmente dalle colonie britanniche nell'America Settentrionale; la scorza dal Belgio e dall'Olanda; il sughero dal Portogallo; sugheri già tagliati dalla Francia, dalla Spagna e dal Portogallo; noce di galla dalla China, dall'

India, dalla Turchia; sumach dalla Sicilia; terra japonica dall' India e da Singapore; valonia dalla Turchia; legna e legname d' opera dall' America Britannica, ed dal Mare Baltico; teca dall' India e Singapore; cedro da Cuba; e maogano dall' America Settentrionale e dagli Stati Uniti d' America.

Classe XLII.

PRODOTTI DELLA CACCIA, DELLA PESCA, E DEL RACCOLGIMENTO DEI FRUTTI OTTENUTI SENZA COLTIVAZIONE.

Diversi articoli compresi in questa classe, come pelli di lepre, coniglio, ed altre pelle, penne, corna, ossa, e cera, ecc., sono prodotti nella Gran Bretagna; ma non vi sono mezzi per verificare la quantità della loro produzione. La provvista di olii di pesce e d' ossi di balena e abbassata negl' ultimi anni, a causa principalmente della scoperta di materiali che sono stati trovati più adattati al fine pel quale si usavano gli articoli nominati.

Benchè molti degli articoli più importanti compresi in questa classe non siano produzione di questo paese, sono consumati in grande quantità. Le cifre seguenti mostreranno le quantità dei prodotti principali forestieri di caccia, pesca, ecc., importati dalla Gran Bretagna in 1865:—

Scorza, Quercie tintoria . . .	cwts.	24,954
„ per conciatori di pelli . . .	„	405,856
Ossa per disegni di fabbricazione . . .	tons	8,666
„ setole . . .	lbs.	2,566,000
Sugheri non tagliati . . .	tons	6,113
Penne per letti . . .	cwts.	13,493
„ adornamento . . .	lbs.	54,211
Noce di cacao . . .	No.	2,545,000
„ terra . . .	tons.	1,939
Gomme . . .	cwts.	182,000
Caoutchouc . . .	„	71,392
Gutta percha . . .	„	29,077
Crino di vacca, bove, cavallo, } ecc.	„	74,851
Corna . . .	tons	3,678
Colla di pesce . . .	cwts.	2,764
Olio di pesce . . .	tons	10,005
„ spermaceti . . .	„	2,438
Penne d'oca da scrivere . . .	No.	10,949,000
Resina . . .	cwts.	459,000
Pelle di coniglio . . .	No.	1,059,000
„ cervo . . .	„	92,000
„ capra . . .	„	2,797,000
„ capretto . . .	„	330,000
„ d'agnello . . .	„	708,000
„ di pecora . . .	„	4,300,000
„ di vitello marino . . .	„	529,000
Avorio, denti d' elefante . . .	cwts.	10,268
„ vegetale . . .	„	22,313
Scaglia di tartaruga . . .	lbs.	39,288
Cera . . .	cwts.	10,600

Queste cifre hanno relazione all' importazione totale; in casi, c'è una ri-esportazione considerabile.

Classe XLIII.

PRODOTTI D' AGRICOLTURA CONSERVATI CON FACILITÀ, CHE NON SI USONO PER CIBO.

Gli articoli principali prodotti nella Gran Bretagna che cadono tra il limite di questa classe sono lino grezzo e lana, olii di semenza, e scorza di quercia. La produzione dei due articoli precedenti è stata notata nelle Classi 28 e 30; ma non vi sono mezzi di sapere la quantità di scorza di quercia prodotta in questo paese. In quanto alla produzione d' olii di semenza non esistono rapporti della manifattura per uso domestico e altro. Però è esportato in gran quantità dalla Gran Bretagna. Nell' anno 1865 undici milioni di gallons, stimati al valore di 1,547,000£, furono esportati da questo paese; ma cotesta quantità non fu fatta solamente di semenza inglese, grande quantità di semi per fare olio essendo importata ogni anno. Nell' anno 1865, 1,697,000 *quarters* di seme di lino, di grano di rapa, ed altri semi da olio furono importati. In più della produzione nostrale di scorza, grandi quantità di materie per conciatori furono importate. Nell' anno 1865 le specie principali di tale materie, importate fu:—

	Tons
Scorza per tintori o conciatori . . .	20,292
'Cutch'	2,120
'Gambier'	13,588
Valonia	19,702
Divi Divi	3,711
Shumac	13,054

Le importazioni di semi da olio principalmente dalla Francia, Olanda, e Amburgo, nel medesimo anno montò a 12,811 *tons*, del valore di 595,000£.

Classe XLIV.

PRODOTTI CHIMICI E FARMACEUTICI.

La manifattura di prodotti chimici costituisce una delle industrie le più importanti del paese, e può essere considerata importante, non solamente perchè forma un negozio indipendente e di estensione considerabile, ma anche in relazione coi processi varj di manifattura nei quale i prodotti chimici sono usati in tanta ampiezza. Le fabbriche principali dell' industria sono nei contorni di Newcastle, Liverpool, Glasgow, Bristol, e Birmingham. I preparati chimici sono anche prodotti in altre parti di Lancashire, e delle provincie centrali e meridionali dell' Inghilterra.

La manifattura della più gran parte degli altri articoli compresi in questa classe è

sparsa tanto fra il paese, che è difficile di particularizzare qualunque luogo speciale della loro produzione. In quanto alla manifattura di sapone e di candele, le qualità ordinarie si fanno in quasi tutte le città grandi del Regno. Il sapone è prodotto estensivamente; nell'anno 1852, l'anno precedente dell'abolizione del dazio del consumo sopra il sapone, 203 milioni di libbre di sapone duro e 21 milioni di libbre di sapone mollo furono caricate del dazio in quell'anno nella Gran Bretagna. Da poi l'abolizione del dazio, non c'è rapporto degno di fede della produzione, benché si sa che ha aumentato considerabilmente. Durante il tempo che il dazio sulla produzione del sapone esisteva, pochissimo fu fatto per il miglioramento ed il buon mercato della manifattura, ma il dazio essendo abolito, una concorrenza di scienza chimica fu diretta a quest'oggetto, ed ora si può comprare il sapone per 2*d.* la libbra, che prima sarebbe stato gravato di 3*d.* la libbra pel dazio. Grandi miglioramenti sono stati fatti nella produzione delle specie diverse di saponi profumati, e saponi di fantasia, per la quale c'è ora una gran domanda. I saponi di fantasia si fanno in ampiezza in Londra ed in qualche altre città principali del paese.

In quanto alle candele, il negozio di candele di sevo è condotto in quasi tutte le città del paese, e dà impiego a molte centinaia di lavoratori. La fabbrica di altre specie di candele, come cera, spermaceto, è condotta principalmente nelle città grandi; e quella di stearina, di paraffina, e candele composte, all'eccezione di due fabbriche nella Scozia, e nell'Irlanda, è ristretta intieramente in Londra ed i contorni. Non esistono rapporti del numero delle persone impiegate nella manifattura di candele al presente. Secondo il censo di 1861, il numero seguente fu impiegato in questo negozio in ogni divisione del regno:—

Venditori di Candele di Sevo.

	Uomini	Donne	Totale
In Inghilterra la Gales	4,467	219	4,686
Scozia	298	25	323
Totale	4,765	244	5,009

Dietro l'introduzione di candele di paraffino, la manifattura ha migliorato e aumentato notabilmente. I Signori Field, che sono espositori in questa classe, furono i primi ad introdurre questa specie di candela nell'anno 1857, da quel tempo hanno fatto miglioramenti considerabili nella loro fabbricazione, il più recente dei quali è il metodo di fare le candele che si aggiustano da sè. Il vantaggio principale delle candele di paraffino è la soppressione totale di grasso, la produzione di un lume puro, bello, e splendissimo, nonché il basso prezzo, avuto riguardo alla loro qualità. Le candele di paraffino sono suscettibili d'essere colorate in ogni colore senza detrimento della luce.

La manifattura di gomma elastica, e di gutta-

percha ha aumentato immensamente negli ultimi dieci anni, ed è condotta estensivamente in molte parti del regno. Progresso grande è anche stato fatto nella produzione di tinte e di colori nel medesimo tempo. Allume, che forma un articolo di commercio di qualche importanza, è prodotto in ampiezza a Whitby in Yorkshire. Il fosforo è fatto in quantità grande dai Signori Albright e Wilson a Oldbury. La manifattura d'acque minerali e altre specie è condotta in diverse parti del paese, e diede impiego a 1,501 uomini, e 98 donne nell'anno 1861.

Come non ci sono statistiche ufficiali delle produzioni industriali del paese, è impossibile di fissare il numero totale delle persone impiegate nei diversi mestieri compresi in questa classe. Il numero totale di farmacisti fabbricanti, secondo il censo di 1861, fu nella Gran Bretagna:—

	Uomini	Donne	Totale
Inghilterra e Gales	7,505	243	7,748
Scozia	1,253	50	1,303
Totale	8,758	293	9,051

La manifattura più importante in questa classe è quella del negozio degl'alcali, che comprende le industrie congiunte di carbonato di soda, acido solforico, acido idroclorico ed agenti per imbianchire; e come la manifattura è condotta sotto l'ispezione del governo, i rapporti della quantità di sale scomposto fornisce una misura dell'estensione ed accrescimento commerciale. Al tempo del trattato tra la Francia e l'Inghilterra nel 1860, la quantità di sale usato nella fabbrica d'alcali in questo paese fu stimato dai rappresentanti del mestiere d'essere circa 250,000 *tons* per anno. Il primo rapporto dell'ispettore d'alcali segna la quantità usata nel 1864 a circa 300,000 *tons*, ed il secondo rapporto per 1865, 325,000 *tons*, dimostrando una aumentazione di trenta per cento in cinque anni. Non vi sono rapporti precisi dei prodotti derivati da questa discogliimento, ma però furono fatte diverse stime approssimative.

Anzi il giuri sulla Classe 2 all'Esposizione di 1862 ha pubblicato dei fatti interessanti, forniti dal Signor C. Allhusen, avendo relazione al negozio d'alcali della Gran Bretagna, dai quali appare che anche nel 1852 la produzione di questo mestiere montò a:—

	Tons	Valore
		£
Alcali	71,193	711,930
Soda cristallizzata . . .	61,044	305,220
Bicarbonato di soda . . .	5,762	86,430
Polvere da imbianchire . .	13,100	131,000
	151,099	1,234,580

L'aumentazione del negozio fra 1852 e 1861 è riportato come segue:—

	Secondo al rap- porto del Sig. Allhusen	Secondo al rap- porto del Sig. Gossage
	Tons	Tons
Alcali	71,193	156,000
Cristalli di soda . . .	61,044	104,000
Bicarbonato di soda . .	5,762	13,000
Polvere da imbianchire .	13,100	20,000

Il Signor Gossage stimò il valore totale dei prodotti in 1861 d'essere più di dieci milioni di lire sterline, ed il numero delle persone impiegate in quasi cinquanta stabilimenti a 10,000.

La tavola seguente mostra la produzione dei due principali territorj d'alcali nell'anno 1861:—

	Newcastle-on- Tyne	Lancashire, so- condo al rap- porto del Sgr. Schunk, Smith, e Roscoe
	Tons	Tons
Alcali	35,000	93,600
Cristalli di soda . . .	82,000	8,849
Bicarbonato di soda . .	12,000	11,700
Polvere da imbianchire .	11,400	8,060

Il Signor E. K. Muspratt, segretario onorario della ramificazione di Lancashire dell'Associazione dei Manifattori di Alcali, riferisce che, stando ai rapporti dei fabbricanti in quel distretto, la quantità di sale disciolto ogni anno al tempo presente è circa 170,000 tons o più di 50 per cento del negozio totale del regno.

La quantità dei prodotti sottoscritti fabbricati nel distretto di Lancashire, o il distretto occidentale nell'anno 1866, monto a:—

	Tons
Cenere di soda	81,800
Soda caustica	11,500
Cristalli di soda	23,000
Bicarbonato di soda	6,400
Solfato di soda, venduto come solfato	24,600
Polvere da imbianchire	17,500

Il valore dei prodotti soprascritti a i prezzi correnti fu calcolato d'essere 1,726,200*l.*

Sopra di più degli alcali fabbricati in questo territorio, quantità grandi d'acido solforico (18,000 tons) è d'acido idroclorico (14,000 tons) furono prodotti nel 1866. La quantità di molti altri prodotti non è stata accertata, ma il valore totale delle produzioni chimiche del territorio può essere stimato a due milioni di lire sterline.

I due miglioramenti di più grande importanza nella manifattura d'alcali da qualche anno sono stati la produzione aumentata di soda caustica e di polvere da imbianchire, che sono usati estensivamente dai fabbricanti di carta nella preparazione d'erba d'esparto che è usata invece di stracci.

È all'abolizione dei dazj sopra il sale, il vetro, il sapone, e la carta che il mestiere d'alcali d'Inghilterra deve la sua perfezione e sviluppo.

Non esistono rapporti della produzione d'altre specie di prodotti chimici, ma sono fabbricati estensivamente in altre parti del paese.

In aggiunta alla produzione nostrale dei materiali grezzi usati nella manifattura degli articoli compresi in questa classe, c'è un'importazione considerabile da altri paesi, come si vedrà dalla tavola seguente, che mostra le importazioni nella Gran Bretagna nell'anno 1865:—

Articoli	Quantità
Alcali:	
Potassa d'America	cwts. 143,779
Barilla	15,762
Ammoniaca liquida	lbs. 11,334
Altra specie	cwts. 19,352
Allume	10,890
Annatto tondo e squarciato	3,647
Argol	20,004
Balsamo:	
Copaiva	lbs. 230,508
Peru	17,626
Non numerate	46,240
Scorza:	
Peru	cwts. 15,510
Quecitrone	24,954
Bacci gialli	5,184
Acido Boracico	20,627
Borace	6,209
Solfo	981,106
Canfora:	
Non depurata	10,430
Caoutchouc	71,392
Cocciniglia	24,260
Crema di Tartaro	49,165
Cubebe	lbs. 53,443
Divi-Divi	tons 3,711
'Gambier'	13,588
Gomma:	
Copale	cwts. 8,607
Belzuino	1,883
Arabica	46,032
Tinta di lacca	11,673
Lacca	46,362
Mastice	1,860
Gutta-percha	29,077
Indaco	66,506
Gialappa	lbs. 166,761
Robbia	cwts. 88,033
Alizzari	147,482
'Munjeet'	1,837
'Garacine'	33,571
Miniera di manganese	tons 47,478
Napta	gals. 238,360
Nitro, cubico	cwts. 1,020,383
Olio:	
Animale	tons 10,005
Spermaceto	2,438
Noce di cacao	cwts. 190,228
Palma	798,724
Terebentina	112,129
Petrolio:	
Non depurato	tons 5,662
Depurato	gals. 2,112,831
Roccella	cwts. 34,298
Paraffina	8,556
Potassa:	
'Prussiato' di potassa	lbs. 936,298
Solfato	1,421,102

Articoli	Quantità
Potassa— <i>continuata</i> :	
Bicromato	lbs. 183,352
Muriato	cwts. 49,567
Piriti di ferro, o rame	tons 193,626
Solfato di chinina	ozs. 364,089
Salnitro	cwts. 311,390
Salsapariglia	lbs. 472,968
Senna	" 749,389
Smalto	cwts. 1,300
Stearina	" 9,298
Servo	" 1,361,248
Acido tartarico	lbs. 299,810
Trementina	cwts. 44,428
Ottamarino	" 27,512
Acque minerali	gals. 83,580
Cera d'ape	cwts. 10,678
Vegetale	" 3,079

Bisogna rammentarsi nondimeno che in alcuni casi una proporzione grande di questi articoli è ri-esportata.

La quantità media dei salary pagati agli artigiani in alcune delle ramificazioni principali delle manifatture chimiche del paese, secondo ai rapporti forniti al Consiglio di Commercio nel 1866, dalle Camere di Commercio di Newcastle e Bristol, fu:—

	A Newcastle, per giorno di 10 ore	A Bristol, per giorno di ore 10½
	<i>s. d.</i>	<i>s. d.</i>
Fabbricanti di acido solforico	4 6	3 6
" " solfato di soda	4 8	4 8
" " soda cruda	4 6	4 0*
" " carbonato di soda	4 6	4 8
" " cristalli di soda	3 8	3 0
" " bicarbonato di soda	3 8	—
" " polvere da imbianchire	5 2	4 0*
" " soda caustica	—	4 6
" " cloride di calce	—	3 0
" " sale ammoniac	—	4 0

* Otte ore per giorno.

La quantità media dei salary pagati ogni settimana nel mestiere della fabbricazione di sapone nell'anno 1866 nei tre luoghi seguenti fu:—

	A Bristol	A Edimburgo	A Glasgow
Fabbricanti di sapone	40s.	25s.	36s.
Aiutatori	16s. 6d.	15s. a 19s.	18s.
Uomini da tini	18s. a 20s.	15s.	12s. a 18s.

Ore di lavoro, 60 per settimana.

Nel negozio delle candele di paraffina la quantità media dei salary pagati agli uomini abilitati nel mestiere è circa 30s. a 42s. per settimana. Ore di lavoro dieci e mezzo per giorno.

Gli esporti delle specie principali di prodotti chimici inglesi, sapone, candele, ecc., nell'anno 1865 furono come segue:—

	Quantità	Valore
Alcali:		£
Soda caustica, ceneri di soda e alcali depurato	cwts. 1,799,637	842,170
Cristalli di soda	" 641,442	199,376
Bicarbonato di soda	" 131,715	82,400
Allume	" 75,166	26,885
Anilina, roba da tingere	lbs. 41,165	1,874
Lucido per le scarpe	£ —	20,614
Materiali da imbianchire	cwts. 220,140	117,149
Borace depurato nell'Inghilterra	" 16,897	46,440
Solfo	" 57,795	31,783
Candele:		
Stearine	lbs. 3,222,585	110,575
Altre specie	" 403,838	12,973
Fabbricazione di caoutchouc	£ —	465,700
Coppirosa	cwts. 79,420	47,721
Spezie e prodotti chimici:		
Medicine	£ —	477,026
Sostanze non numerate usate per tingere ed altri processi sottoserviente alle manifatture ed all'Arti	" —	442,230
Sale d'Epsom e sale Glauber e pane di sale	cwts. 158,648	33,986
Piombo rosso	" 68,452	78,890
" bianco	" 66,763	91,267
Fiammiferi e solfini di cera	£ —	104,755
Nafta, paraffina, olio, e petrolio	gals. 1,907,032	236,624
Colori da pittori ed altri materiali non numerati altrimenti	" —	473,051
Profumeria	" —	94,351
Sale gemma e sale bianco	tons 579,050	274,631
Salnitro	cwts. 59,938	93,547
Sapone	" 140,241	184,279
Amido	" 16,445	26,261
Olio d'ospirito di terebentina e roba sostituta per trementina	gals. 88,713	25,105

Le esportazioni d'alcali e di soda sono aumentate dimolto negli ultimi dieci anni. Nell'anno 1856 solamente 1,405,000 cwts. furono esportate eq 1865 2,572,000 cwts.

Il progresso nella fabbrica di prodotti chimici negl'anni recenti ha almeno bastato a soddisfare le richieste del mercato, e come è già stato detto in quanto alla classe importante dell'alcali, oltre fornire ai bisogni aumentati dei fabbricanti nostrali, il commercio co' paesi forestieri è stato esteso di molto.

Miglioramenti considerevoli sono stati fatti nei processi adottati nella fabbrica d'acido solforico e molti altri chimici, specialmente nel condensamento di gas acido idroclorico nelle fabbriche d'alcali. Un ristabilimento importante è stato fatto nel mestiere del fosforo; invece d'importare il fosforo come si faceva poch'anni fa, ora i fabbricanti inglesi competono fortunatamente con i fabbricanti

esteri in quasi tutti i mercati continentali. I miglioramenti nella fabbricazione di sapone e candele, cagionati per molte scoperte recenti, sono stati molto grandi, e la scoperta di tinte aniline, ed altre di qualità simili ha dato sfogo a un commercio estensivo in quest' articoli.

L' applicazione di gomma elastica a una infinita d' oggetti domestici e di commercio è stato un mezzo di dare impiego ad una gran quantità d'artigiani. Gli articoli esposti daranno un' idea più chiara dell' importanza delle diverse ramificazioni d' industria in relazione con questi articoli, non consentendo lo spazio limitato, di estenderci nel campo delle osservazioni.

Classe XLV.

MOSTRE DEI PROCESSI CHIMICI PER BIANCHIRE, TINGERE, STAMPARE E SALDARE.

I schiarimenti su alcune importanti migliorazioni nei processi compresi in questa classe saranno trovati nell'introduzione alle classi di fabbriche tessute, tappeti, ecc.

Classe XLVI.

CUOJO E PELLI.

La fabbrica di cuojo è stata stimata la quarta in importanza fra le grandi fabbriche nazionali della Gran Bretagna. È condotta molto estensivamente a Bermondsey, vicino a Londra, e a meno estensione in molte altre parti del paese. A paragone della popolazione, più di cuojo per uso generale è preparato in Inghilterra che in alcun altro paese. Il valore totale annuale della manifattura di cuojo fu detto essere nell' anno 1851 quattordici milioni di lire sterline, ma cotesto è probabilmente assai meno del valore presente, perchè il commercio ha cresciuto costantemente dopo quell' data. Non vi sono

rapporti della quantità di cuoj in carne prodotta nella Gran Bretagna, ma aggiunto alla provvisione nostrale, che certamente deve essere molto estensiva, grandi importazioni di cuojo in carne sono fatte annualmente dall' India, l' America Meridionale, ed altre parti del mondo. Vi sono anche grandi quantità di cuojo preparate, acconciate, e pulite pe' guanti importate. La tavola seguente fa vedere le quantità ed il valore delle pelli e del cuojo importati durante gli anni cinque dal 1861 a 1865:—

Anni	Cuojo in carne	Cuojo conciato	Valore totale
	Quintali	Libbre	£
1861 . .	830,000	5,219,000	2,903,000
1862 . .	943,000	5,512,000	3,204,000
1863 . .	1,023,000	5,202,000	3,230,000
1864 . .	954,000	6,446,000	3,152,009
1865 . .	968,000	7,352,000	3,073,000

Una grande quantità di cuojo in carne forestiera e riesportata. Gli esporti di pelli conciate inglesi, non preparate, durante gli anni cinque dal 1861 a 1865 erano:—

Anni	Quintali	£
1861 . . .	40,000	361,000
1862 . . .	43,000	406,000
1863 . . .	47,000	441,000
1864 . . .	38,000	382,000
1865 . . .	43,000	409,000

Le esportazioni di cuojo si troveranno notate in altre classi, nelle quali sono poste in ordine.

Il prezzo di salarj guadagnati dai conciatori sono circa 25s. per settimana, e dai lustratori e preparatori di cuojo 34s. Diversi materiali grezzi nuovi per conciare le pelli furono esposti all' Esposizione di Londra nel 1862, dei quali molti erano stimati dal giuri esser uguali, se non superiori, alla scorza di quercia ordinaria adoperata usualmente, ma il metodo antico dell' acconciatura è ancora in uso esteso.

La fabbrica di pelli per guanti, di pergamene, di pelli da battiloro e di corde per istrumenti di musica, è anche condotta nella Gran Bretagna, ma non ci sono rapporti dell' estensione delle diverse industrie.

GRUPPO VI.

(CLASSI XLVII.—LXVI.)

APPARATI E PROCESSI USATI NELLE ARTI COMUNI.

Classe XLVII.

APPARATI E PROCESSI SULL' ARTE DI FAR
MINE, E DI METALLURGIA.

TROPPO spazio ci abbisognerebbe per enumerare le specie grandissime d' apparecchj e di macchine che sono adoperate nelle ramificazioni diverse dell' industria comprese in cotesta classe. Lo sviluppo delle risorse metallurgiche e dell' arte di far mine nella Gran Bretagna, è dovuta principalmente all' uso di meccanismo, e di fatti vi sono molte miniere le quali sarebbe impossibile di far lavorare, ed anche molti processi di metallurgia che non potrebbero essere fatti senza l' aiuto della forza del vapore. Non vi sono rapporti della quantità di macchine a vapore, ne del montante della forza motrice adoperata nelle miniere e nelle fabbriche di metallo della Gran Bretagna. Il meccanismo è nondimeno usato grandemente per far scendere minerali nei pozzi, per scolare le miniere, e promuovere la ventilazione, benchè, per la più parte, le miniere di carbone fossile in Inghilterra sono ventilate per mezzo di fornai. Grandissimo miglioramento è stato fatto negli anni recenti nelle macchine da girare, nella migliore adattazione della fornace per ventilazione, ed anche nella costruzione di ventilatori a meccanismo. Il forare, fatto per mezzo di vapore, è una delle invenzioni recenti, le più importanti. Macchine per tagliare il carbon fossile, e un modello perfetto dell' apparecchio e del meccanismo usato nel processo 'Bessemer' per fabbricare l' acciaio sono esposte in cotesta classe.

Notando le gabbie di sicurezza, ossia paracadute, alcuni dei modi inventati al presente hanno incontrato generale soddisfazione, benchè molte specie differenti siano in uso.

Le lanterne di sicurezza adoperate nelle miniere di carbon fossile nella Gran Bretagna sono per lo più le lanterne di moda antica, chiamata 'Davy,' e la lanterna 'Stephenson,' ossia 'Geordie,' tutte due protette d' appertutto di velo di ferro, sebbene le lanterne di 'Mueseler' siano state introdotte con soddisfazione in poche miniere inglesi.

Classe XLVIII.

APPARATI D' AGRICOLTURA, E PROCESSI
ADOPERATI NELLA COLTIVAZIONE DEI
CAMPI E DELLE SELVE.

La costruzione di macchine e di strumenti necessarij all' agricoltura nella Gran Bretagna, è stata menata ad un alto punto di perfezione; e si aggiunga che sono prodotte estensivamente per uso nostrale, macchine d'agricoltura ed utensili che vengono esportati annualmente in grande quantità. L' uso della forza del vapore per molti lavori di coltivazione dei poderi, è, al tempo presente, assai generale. Grande attenzione è stata data negli ultimi anni alla coltivazione dei poderi, e per mezzo di scolamento migliorato, e per l' uso di concimi artificiali ed apparato perfezionato, la fertilità del terreno è stata aumentata grandemente. I carrettoni e i carri adoperati nella Gran Bretagna per i bisogni d'agricoltura sono generalmente assai superiori a quelli usati in altri paesi.

Notando il progresso recente negli oggetti compresi in questa classe, il giurì eletto a riferire sugli utensili d'agricoltura all' Esposizione di Londra nel 1862, chiamò l' attenzione particolare all' uso aumentato della macchina a vapore movente per trebbiare il grano, macchine da falciare, e da mietere, e all' uso di meccanismo per ridurre in polpa il cibo del bestiame.

La fabbrica di strumenti d' agricoltura e di macchine è condotta estensivamente a Lincoln, Peterborough, Grantham, Bedford, Ipswich, Leiston, Stowmarket, e molte altre parti del paese.

Non vi sono statistiche della produzione degli articoli inclusi in questa classe dell' industria nostrale, ma qualche idea della loro importanza può essere tratta dalla quantità d' espositori in questa classe.

Il valore dei strumenti d' agricoltura esportati dalla Gran Bretagna nell' anno 1865 montava a 210,000£; di macchine d'agricoltura (meno quelle a vapore) 282,000£; e di strumenti fatti intieramente di ferro 13,000£. Non esiste un rapporto particolare delle locomot-

tive esportate per uso d'agricoltura, ma qualche centinaio sono annualmente mandate in paesi forestieri.

La lista seguente è degli articoli principali importati nell'anno 1865 per acconciare la terra.

	Quantità	Valore
	Tonnellate	£
Ossa	65,642	362,000
Guanò	237,693	2,676,000
Concime : Non numerati . .	8,025	49,000

Classe XLIX.

APPARATO USATO NELLA CACCIA, UTENSILI DA PESCA, ED APPARECCHIO ADOPERATO NEL COGLIERE FRUTTI OTTENUTI SENZA CULTURA.

La fabbrica di fucili da caccia è condotta principalmente a Birmingham e a Londra. Una osservazione del negozio si troverà nella Classe 37.

Utensili da pesca si fanno in qualche quantità nella campagna. Ami, fiocine, ramponi ed esche, ed utensili, sono fabbricate in grande quantità in Redditch, e una ramificazione estesa del negozio, in canne da pesca, mosche artificiali, lenze, sugheri da galleggiare, rete, ecc., ha luogo in Londra.

Circa 600 persone sono impiegate a Redditch nella fabbrica di ami; e secondo il censo di 1861, 670 persone erano impiegate in Inghilterra e Galles, e 60 persone in Irlanda nella manifattura di canne, e di utensili da pesca. Mosche artificiali ed esche sono fatti a Redditch, per la più parte da donne e ragazze. Il valore dei salari guadagnati a Redditch sono stimate essere circa 8s. a 15s. per settimana per donne, e da 12s. a 40s. per uomini. In Londra il valore è più alto, i braccianti principali guadagnando da 40s. a 80s. per settimana, e lavorando da otto a dodici ore per giornata.

Il valore degli utensili da pesca esportati dalla Gran Bretagna nell'anno 1865 montò a 81,000.

Classe L.

APPARATO E PROCESSI ADOPERATI NEI LAVORI D'AGRICOLTURA, E NEI LAVORI PER LA PREPARAZIONE DEL CIBO.

Si adopra il meccanismo grandissimamente nella Gran Bretagna per la fabbrica di tubi da scolare, per fratturazione d'ossi, per mulinare il grano, per far il pane, e per molti altri processi compresi in questa classe. Non è possibile in questo posto di notare li miglioramenti numerosi che sono stati fatti in diverse parti delle macchine impiegate nelle sopradette ramificazioni del negozio, ma il con-

corso sempre aumentando dei fabbricanti nei mercati nostrali ed esteri è bastante da se stesso per persuadere i produttori di adottare ogni miglioramento che sia scoperto pel motivo di aumentare il valore delle loro produzioni, e per questo mezzo di poter vendere più buon mercato, che i loro rivali, o di fare profitti più grandi.

Non vi sono rapporti del numero o della forza delle macchine a vapore adoperate nei negozj notati in questa classe.

Classe LI.

APPARATO USATO IN CHIMICA, FARMACIA ED IN CONCIA.

La molteplicità di processi in uso nelle diverse ramificazioni dei mestieri in relazione, con questa classe rende difficile nel piccolo spazio accordato a queste osservazioni di alludere anche ai più importanti apparati in uso presentemente. Il progresso rapido della scienza in quest' ultimi anni, però, ha ridotti a perfezionamento molti processi vecchi, e ne ha introdotti varj nuovi relativi alle produzioni chimiche del paese. Alcuni miglioramenti recenti sono esibiti in questa classe.

Classe LII.

FORZA MOTRICE, CALDAJE, E MACCHINE ADATTATE SPECIALMENTE PER I BISOGNI DELL' ESPOSIZIONE.

Siccome gli articoli esposti in questa classe sono stati scelti per un intenzione particolare, resta alla decisione degl' uomini periti il decidere se gli articoli forniti dagl' espositori inglesi sono adatti allo scopo propostosi. Una relazione sul mestiere generale del meccanismo inglese si troverà nella Classe 53.

Classe LIII.

MACCHINE E APPARATI IN GENERALE.

La prosperità del commercio della Gran Bretagna è dovuta in gran parte al possedimento d' una provvista grande delle materie grezze necessarie alla manifattura di meccanismo, e di carbone per lavorarlo; come anche nella perfezione alta alla quale la fabbricazione è stata condotta nella sua applicazione ai processi innumerevoli in relazione colle industrie nazionali del paese.

Le macchine ed il meccanismo sono fabbricati in grande quantità a Manchester, Leeds, Birmingham, Sheffield, Newcastle, e Glasgow, ed in molte altre parti del paese. Le macchine da marina sono fatte principalmente alle fabbriche sulle rive del Thames e del Clyde, benchè se ne costruiscano in meno ampiezza a Newcastle ed in altri parti del regno.

La fabbrica di meccanismo idraulico, tronchi da girelli, macchine da cucire, e meccanismi per fare chiodi, è condotta estensivamente a Birmingham, ed anche quella di tubi per macchine fatti d'ottone e di rame, che sono prodotti anche a Manchester, Liverpool, e Newcastle. Il meccanismo d'agricoltura forma anche una ramificazione importante del negozio di meccanismo; ma come è incluso nella Classe 74, non c'è bisogno di dire di più su questo proposito. Il numero degli uomini impiegati nella fabbrica di meccanismo in ogni divisione del regno, secondo il censo del 1861, fu:—

	£
In Inghilterra e la provincia di Galles .	72,000
Scozia	10,500
Irlanda	900
Totale	83,400

A motivo delle numerose suddivisioni del mestiere meccanico, è difficile di sapere il numero attuale delle persone impiegate. Però si crede che le cifre date di sopra sieno esatte. Non esistono rapporti completi della quantità media dei salary guadagnati nelle diverse ramificazioni della costruzione generale di meccanismo nostrale, però il lavorante d'abilità è ricompensato assai generosamente, e a causa dell'impiego costante che hanno gli artigiani, vivono assai bene.

Gli ultimi rapporti della quantità media dei salary pagati ai meccanici a Manchester furono resi in 1859; nel qual tempo furono come segue. Fabbricanti di modelli, costruttori di mulini, fabbri e fabbricanti di caldaje, 32s.; falegnami di ferro, 28s.; spianatori, 22s.; traforatori, 20s. e battitori, serratori, e foratori e 'slotters', 18s. per settimana di 58 ore. La quantità media dei salary a Glasgow in 1866 fu 25s. per fabbricanti di caldaje, e 24s. pei fabbri: settimana di 60 ore. La quantità media dei salary guadagnati nella manifattura di meccanismo idraulico a Birmingham è riportato essere, per lavoranti periti, circa 55s.; e per quelli di meno abilità 30s. a 40s. per settimana.

Il valore del meccanismo inglese d'ogni specie esportata dalla Gran Bretagna aumentò da 2,243,000 nell'anno 1855 a 5,222,000 nell'anno 1865. La tavola seguente mostra le specie principali esportate nell'ultimo anno.

Meccanismo e lavoro per mulini:—	£
Macchine a vapore o parti di macchine	Locomotivi 945,451
	Altre sorte che locomotivi . 1,013,082
Non essendo macchine a vapore	Agricoltura . 282,019
	Altre specie 2,982,081
Totale	5,222,633

In una classe che include tanta varietà, infinità d'oggetti, e nella quale i miglioramenti sono quasi d'occorrenza giornaliera, è difficile in poche righe di far vedere il progresso totale che è stato fatto negl'anni ultimi. Il giuri sulla Classe 8 all'Esposizione del 1862, pren-

dendo gli articoli presentati all'Esposizione di 1851 come un tipo di comparazione, rapportarono che in quanto alle macchine a vapore, si osserva che mostrano una addattamento più grande di pressione alta, una grande espansione e soprascaldamento, ed un uso aumentato di condensamento superficiale (che è fatto generalmente per mezzo di un gran numero di tubi orizzontali), una tendenza alla semplicità nella struttura e nelle parti principali del movimento, un abbandono generale d'invenzioni che sono piuttosto singolari che utili, ed una perfezione più alta nel lavoro e nella finitezza, i quali miglioramenti continuano a produrre economia più grande nel carbone, nella forza, e nelle riparazioni. 'Le notificazioni generali in quanto al progresso delle macchine a vapore di terra, sono applicabili anche a quelle di mare. I miglioramenti nel lavoro sono anche più notevoli. Un progresso considerabile fu anche osservato nelle gettate gravi o fabbricazioni del ferro grosso, come anche in molte parti delle macchine, e pezzi diversi di meccanismo. In quanto ai miglioramenti importanti dopo l'anno 1862, si vedranno certamente la più gran parte di questi fra gli articoli esposti in questa classe.

Classe LIV.

ARNESI A MACCHINA.

La fabbrica di arnesi a macchina è già stata portata a grande perfezione nella Gran Bretagna, ma c'è anche ora bisogno di miglioramento, tanto nella semplicità di costruzione di diversi ordigni quanto nell'addatazione loro a una più grande varietà d'usi.

Gli arnesi a macchina sono manifatturati su alta scala a Manchester, Sheffield, Leeds, e in molte altre città, ecc., del regno. Dopo l'introduzione del vapore come forza motrice, l'usanza aumentata di arnesi a macchina è stata grandissima, ed ora ci sono pochi processi in relazione alle manifatture del paese che non siano condotte per mezzo di meccanismo ed ordigni a macchina.

I vantaggi principali che si ottengono dall'uso degli arnesi a macchina in comparazione del lavoro a mano, sono la facoltà aumentata di produzione, l'esattezza in qualità, e regolarità nella quantità del lavoro fatto, ed in forza della maggior produzione, il fabbricante di questi arnesi può pagare salary più alti ai lavoranti periti e così migliorare lo stato degl'artigiani.

Non esistono rapporti del numero dei lavoranti impiegati in questa ramificazione dell'industria, nè anche del valore annuale della produzione di questo mestiere. Però oltre la fabbricazione di questi articoli per uso nostrale, v'ha grande manifatture d'esportazione. Nell'anno 1865 le esportazioni di meccanismo, ecc., più o meno in relazione con questa classe, furono:—

Machine a vapore e parti di macchine (altre che locomotivi)	£ 1,013,000
Meccanismo e lavoro di mulini (altri che a vapore)	2,982,000
Ordigni e strumenti per usi industriali (non classati come meccanismo)	87,000

Lo stabilimento di scuole governative di scienza e d' arte nelle diverse città di manifattura, è stato molto utile alla classe d' artigiani impiegati nella manifattura di macchine da meccanismo e di arnesi a macchina che sono abilitati per l' istruzione che ricevono non solamente di divenire migliori lavoratori, ma anche perfezionatori di meccanismo vecchio e inventori di meccanismo nuovo; aumentando in questa maniera il poter nazionale di fabbricazione e nell' istesso tempo elevando la loro posizione nel grado sociale.

Classe LV.

APPARATI E PROCESSI ADOPERATI NELLA FILATURA E NELLA FABBRICA DI FUNE.

La fabbrica di fune, cordame, ecc., è sparsa largamente in tutto il paese, ma i locali principali della industria di cordame sono Liverpool, Newcastle, ed altre parti del fiume Tyne, in Londra, e in alcuni porti scozzesi. Funi per l' uso della marina sono anche fatte agli arsenali reali. La grande estensione dell' uso di corde di filo di ferro per armatura di navi, e ad uso delle miniere di carbone ed altri, ha portati grandi miglioramenti nella fabbrica di cordame. Le due corde submarine che ora esistono fra la Gran Bretagna e l' America marciano bastantemente da loro stesse la alta posizione alla quale il cordame di fili di ferro è arrivata in cotesto paese. Riguardando il meccanismo adoperato nella filatura, sarà trovata una relazione nelle classi rispettive di fabbriche tessute; però, molte macchine sono esposte in questa classe, che dimostrano le migliorazioni le più recente praticate in questo genere di meccanismo. La quantità di persone impiegate nella fabbrica di fune, corde, ecc., secondo il censo di 1861, era:—

	Uomini	Donne	Totale
In Inghilterra e Galles .	11,762	1,724	13,486
„ Scozia . . .	2,313	267	2,580
„ Irlanda . . .	1,132	33	1,165
Totale . . .	15,207	2,024	17,931

I materiali greggi adoperati nella fabbrica di cordame sono importati per lo più dalla Russia, l' Italia, e dall' Indie Orientali. Nell' anno 1865, gli articoli principali importati per questo bisogno erano come segue:—

	Quantità	Valore £
Fili di canapa per fune, ecc. (meno quelle da fibra di noci di cocco)	libbre 11,082,747	163,932
Fili da fibra di noci di cocco	quintali 97,674	177,609
Canapa lavorata, e grezza	„ 1,065,705	1,704,187

Le cifre soprascritte rappresentano la quantità totale della canapa importata, della quale una porzione soltanto è impiegata nella fabbrica di cordame.

Corde di fili di ferro sono fatte per lo più a Gateshead e a Birmingham, benchè il filo di ferro adoperato è allungato principalmente all' ultimo posto.

Le quantità e il valore del cordame e spago inglesi esportate nell' anno 1865 erano:—

	Quantità Quintali	Valore £
Fune e corde:		
Di canapa . . .	130,715	268,677
Di altre specie . . .	14,009	27,692
Spago . . .	23,449	117,844

Corde di fili di ferro non sono particolarizzate nelle esportazioni dalle altre fabbriche di fili di ferro.

Classe LVI.

APPARATI E PROCESSI ADOPERATI NELLA TESSITURA.

I locali principali della fabbrica di macchine per tessere ed anche per la filatura, sono a Manchester, Oldham, Bury, e in molte altre parti di Lancashire, a Leeds, Halifax, Bradford in Yorkshire, e a Glasgow e Dundee in Scozia. Benchè questa specie di meccanismo sia stata portata a un alto grado di perfezione, miglioramenti sono costantemente fatti, in diverse parti delle macchine per renderle più perfette e più capaci d' agire da sè, e per aumentare la facoltà produttiva. Un' ispezione di una serie perfetta di macchine per la preparazione, la filatura, e la tessitura di cotone, lana e stame, presentate dalla Ditta rinomata dei Signori Platt e Compagnia, nella Classe 55, fornirà un' idea più perfetta del carattere di cotesta specie di meccanismo ora in uso nelle fabbriche inglesi che una corta descrizione non potrebbe dare.

Non vi sono statistiche del numero delle persone impiegate in questa ramificazione della fabbrica di macchine del paese. Una quantità considerabile di meccanismo industriale è esportata annualmente, siccome sarà veduto nel osservare le note nella Classe 53.

Classe LVII.

APPARATI E PROCESSI PER CUCIRE E PER FARE GLI ABITI.

Le macchine le più importanti incluse in questa classe, sono quelle da cucire, e quelle da

farestivali. Macchine da cucire furono primariamente introdotte in Inghilterra dall' America nel 1845 o 1846, dopo la quale data grandi miglioramenti sono stati fatti nella loro costruzione, ed ora sono quasi universalmente adoperati per lavoro semplice ed ornamentale. Il giuri all' Esposizione di Londra del 1862, narrò che durante gli anni dieci dopo il 1851 un progresso considerabile fu fatto nella fabbrica di stivali e scarpe per macchina. Un negozio a l' ingrosso grandissimo di stivali e scarpe ribadite, principalmente per donne e bambini, è cresciuto in pochi anni a Leicester. Le macchine per mettere cavicchi nei stivali, e per tagliare cavicchi, fatte dai Signori Greenwood e Batley, erano grandemente approvate dal giuri in 1862, e furono premiate di una medaglia. Siccome la fabbrica di stivali fatte a macchina ha effettuato un gran risparmio nelle spese della produzione quando è comparata con il lavoro a mano, c' è a sperare che questa Esposizione ci farà vedere altre migliorazioni nelle macchine già in uso in cotesta divisione importante d' industria.

Classe LVIII.

APPARATI E PROCESSI USATI NELLA FABBRICA DI MOBIGLIA E DI OGGETTI CASALINGHI.

Diversi degli apparecchi inclusi nel limite di questa classe, come macchine da segare il legno, piallare, e modellare, ecc., si troveranno esposti nella Classe 54 sotto il titolo di ordigni da macchina. Il meccanismo è al presente così generalmente adoperata in tutte le divisione di manifattura nella Gran Bretagna, che una allusione breve alle diverse specie in uso oltrepasserebbe i limiti di queste osservazioni. La tendenza sempre crescente dei negozj verso una concentrazione delle fabbriche principali del paese possedute dalle più cospicue compagnie che impiegano un vistoso capitale, ha creato un aumento di meccanismo per facilitare le loro vaste operazioni e per economizzare la spesa sul lavoro. Una relazione dei locali principali di manifattura sarà trovata in Classe 53.

Classe LIX.

APPARATI E PROCESSI USATI NELLA FABBRICA DI CARTA, TINTURA, E STAMPERIA.

L' importanza del commercio di carta è stata già osservata nelle notizie a Classe 7. Ma benchè la produzione di carta sia cresciuta così vastamente durante gli ultimi anni, pochi miglioramenti sono stati fatti alla macchina per fare la carta continua, la quale fu introdotta circa il cominciamento del secolo presente. Campioni di macchine da carta ora adoperate

si troveranno esposti in questa classe. I miglioramenti principali relativi al progresso dello stampare dopo l' anno 1851, sono, l' introduzione di meccanismo per gettar il tipo, e di macchine per comporre e distribuire il tipo. Molti miglioramenti nelle macchine per stampare sono anche stati fatti durante gli anni dieci ultimi, onde sopperire alla richiesta enormemente aumentata di giornali, libri, e scritti periodici, la quale è cresciuta durante il medesimo tempo. Gli esporti delle diverse specie di macchine incluse in questa classe non sono registrati separatamente, ma sono inseriti nei rapporti generali che saranno trovati notati nella Classe 53. Il valore dei tipi da stampare e suoi materiali fatti in Inghilterra ed esportate dalla Gran Bretagna, nell' anno 1865 montava a 68,9307.

Classe LX.

MACHINE, ISTRUMENTI, E PROCESSI ADOPERATI IN OPERE DIVERSE.

Benchè nessun cambiamento di rilievo sia stato introdotto da qualche anno nel meccanismo adoperato per la fabbrica della più parte degli articoli contemplati in questa classe, molti miglioramenti importanti furono praticati, nell' intenzione di perfezionare le macchine già in uso. La fabbrica di bottoni, spille, penne ed aghi, costituisce una divisione considerabile d' industria nostrale. Il locale principale della fabbrica è a Birmingham e sue vicinanze. Il negozio dei bottoni è stimato impiegare circa 6,000 persone, e il prezzo medio dei salarj pagati agli uomini impiegati in cotesto esercizio è circa 25s., alle donne 7s. a 9s., alle ragazze e i bambini 1s. a 1s. 6d. per settimana. Non vi sono statistiche del numero delle persone impiegate nella fabbricazione di spille al presente, ma secondo il censo del 1861, il numero totale degli uomini in cotesta ramificazione in Inghilterra e Galles era 322, donne 407. Spille sono fatte ora quasi interamente a macchina, una macchina essendo adoperata, la quale colla rivoluzione di una sola ruota fabbrica una spilla perfetta. Gli aghi sono fatti principalmente a Redditch, e la fabbrica impiega circa 8,000 braccianti. Il prezzo medio dei salarj guadagnati è, per gli uomini, 12s. a 40s., per le donne 8s. a 15s., e per i bambini 1s. 6d. a 5s. per settimana. I Signori Bartlett e Woodward, nel loro rapporto della fabbrica di aghi a Redditch, stimano che in condizione sociale, i lavoratori sono generalmente superiori ad altri braccianti in nettezza e buon ordine. Un ago deve passare fra le mani di settanta braccianti, prima che sia considerato essere finito, e in istato d' essere adoperato. La fabbrica di penne di metallo è posta per il più a Birmingham, e fornisce impiego a circa 360 uomini ed a 2,000 donne e bambini. La quantità di penne fabbricata per settimana è 98,000 grossa, il grosso essendo 144. La più

parte del acciaio usato nella fabbrica è prodotta a Sheffield. Le soprascritte cifre sono estratte da un rapporto del Signor Timmins, che anche egli stima la condizione dei braccianti impiegati nel negozio di penne molto soddisfacente. I salari delle ragazze scorrono da 5s. a 12s. per settimana, alcune delle più giovane guadagnando soltanto da 2s. 6d. a 3s. 6d. Poche donne abili hanno da 15s. a 20s.; gli uomini guadagnano da 18s. a 20s.; i ragazzi, secondo la loro abilità da 4s. 6d. a 16s.; e gli uomini capaci da 30s. a 80s. per settimana. Le ore di lavoro sono da 52½ a 57 per settimana. Il processo della fabbrica di penne si troverà illustrato, siccome quella di spille ed aghi, nelle contribuzioni da Birmingham, Studley, e Red-ditch esposte in questa classe.

Classe LXI.

CARROZZE E LAVORO DA CARRADORI.

Il locale principale della fabbrica di carrozze è a Londra, benchè la costruzione sia anche esercitata in Edimburgo, Dublino, Liverpool, Derby, Manchester, Nottingham, Glasgow, Southampton, Newcastle, ed altre città del regno.

Il numero delle persone impiegate in questa ramificazione in ciascuna divisione della Gran Bretagna nell' anno 1861 era :—

	Carrozzeri	Carradori
In Inghilterra e Galles	18,870	30,070
„ Scozia	1,550	1,282
„ Irlanda	3,000	591
Totale	23,420	39,943

Non vi sono rapporti generali della rata dei salari pagati ai braccianti impiegati nella fabbrica di carrozze, ma il prezzo medio pagato in questa ramificazione in Edimburgo nel 1866 era :—

	Per settimana di 57 ore			
	Classe 1ma.		Classe 2da.	
	£	s. d.	£	s. d.
Uomini:				
Fabbri	1	7 0	1	2 0
Fabbricanti dei gusej	1	10 0	1	2 0
„ di carrozze	1	3 0	—	—
Pintori	1	2 0	1	0 0
Decoratori	1	5 0	1	0 0
Carradori	1	2 0	18	0
Fabbricanti di molle	1	6 0	—	—

Fu esposto nel rapporto sulle carrozze all' Esposizione di Londra nel 1862, che la condizione dei braccianti impiegati nella fabbrica di carrozze, era assai migliorata durante gli anni passati; che l' uso del bere smoderatamente è diminuito fra loro, e l' educazione è aumentata. Siccome il successo della fabbrica di carrozze dipende molto dalla conoscenza dei principj sani di meccanica, delle arte di disegno e la combinazione armoniosa dei colori, è necessario

che i braccianti in costeta ramificazione ricevano una buona educazione d' artista.

Il valore delle carrozze importate nella Gran Bretagna nell' anno 1865 montava soltanto a 5,800l. Il valore delle carrozze esportate nell' anno medesimo era 175,000l., e di carri e carrettoni 8,400l. Una grande quantità delle carrozze furono mandata nell' India Britannica.

Fra i miglioramenti che sono stati fatti nella fabbrica di carrozze, l' uso di macchine in alcune divisioni deve essere notata. A causa pure delle condizioni speciali della fabbricazione, c' è a dubitare se il meccanismo sarà mai adoperato per risparmiare nella fabbrica di carrozze particolari, le quali di necessità variano in ogni riguardo grandemente secondo le idee delle persone che le fanno fabbricare. Un gran progresso è stato fatto nel disegno, nel colore, e nella leggerezza di carrozze particolari dopo il 1851, siccome negli strumenti necessari alla loro costruzione.

Un grande aumento nella chiesta per carrettoni, carri, e carrette è stata fatta dall' estensione del sistema di strade ferrate per tutto il paese, e molte altre specie nuove di veicoli sono state introdotte onde trasportare le mercanzie dalle stazioni delle strade ferrate. Miglioramenti considerabili si verificarono dopo il 1851 negli omnibus adoperati nella capitale, come nei carri e wagoni per lo sgombramento di mobiglia.

Carrozze delle strade ferrate sono notate nella Classe 63.

Classe LXII.

FINIMENTI ED OGGETTI DI SELLAJO.

1. Gli oggetti di sellaio e finimenti inglesi sono stati celebri per lungo tempo, per l' eccellenza della sua qualità e lavoro. I locali principali della fabbricazione sono a Walsall, Birmingham, la capitale, e Glasgow, ed in molte altre città del regno. Diversi negozj più piccoli sono in rapporto con questa industria, cioè, la fabbrica di morsi, staffe, catene, ed altri aggiustamenti, ed ornamenti, i quali sono fabbricati per lo più nei medesimi locali.

2. Il cuoio adoperato nel negozio è principalmente di fabbrica nostrale.

3. Secondo il censo del 1861, il numero seguente di persone era impiegato in questa ramificazione :—

In Inghilterra e Galles	18,229
Scozia	1,822
Irlanda	2,968

23,019

Circa 500 a 600 persone sono impiegate come fabbricanti di fusti da selle, e come fabbri da sellaj.

4. I salari nella fabbrica di selle e di finimenti di Walsall sono un poco più delle altre fabbriche. I guadagni dei braccianti variano da 20s. a 40s. per settimana. Le ragazze e le

donne possono guadagnare da 8s. à 13s. per settimana. I salary degl' apprendisti nel primo anno di lavoro è 3s. per settimana; negl' anni seguenti del loro noviziato ricevono da 12s. a 14s. Le ore di lavoro sono da 7 to 8 a.m. insino a 7 p.m.

A Walsall le fabbriche di oggetti da sellajo e finimenti sono in buonissim' ordine e ben costrutte.

È stimato che circa 60 per cento del lavoro a Walsall è condotto da donne, molte delle quali lavorano a casa loro. L' introduzione della macchina da cucire per fare i finimenti ha economizzato grandemente il lavoro in questa ramificazione di commercio.

5. Vi sono appena alcune importazioni di oggetti da sellajo e finimenti nel paese.

6. Il valore di oggetti da sellajo e finimenti esportati dalla Gran Brettagna negl' anni 1861-65 montò a:—

	£
1861	307,700
1862	343,600
1863	341,600
1864	345,900
1865	350,500

La più grande proporzione di cotesti esporti fu mandata alle colonie Britanniche, e specialmente in Australia.

7. Il Signor Franklin, nella sua relazione sui fabbricanti di Walsall nel 1865, dice che ' può essere d'utile osservazione il notare la scarshezza di genio inventivo, nonchè i pochi cambiamenti di forma e d'apparenza incontrati nei finimenti e oggetti da sellajo dopo il 1849; la sola eccezione essendo la sella "Nolan," inventata durante la guerra di Crimea, ed ora generalmente adoperata nel esercito; nondimeno è convenevole solamente per esercizj militari. Un progresso considerevole è allo stesso tempo stato fatto nel adornamento delle selle e dei finimenti, e molti dei sellaj che si applicano con particolare amore a questa ramificazione hanno ricevuto istruzione artistica regolare nelle scuole di disegno.'

Classe LXIII.

APPARATI DI STRADE FERRATE.

Non si può negare che la prosperità del paese si deve in gran parte ai mezzi estensivi di comunicazione che esistono fra tutte le parti del regno, tra i quali le strade ferrate occupano una posizione importante. A quest' epoca, che il tempo rappresenta il denaro, il possedere mezzi rapidi di trasporto è divenuto una necessità assoluta, e l' Inghilterra può a buon titolo attribuirsi l' onore d' avere inaugurato il sistema presente di strade ferrate, il quale, si può quasi dire, ha vinto la distanza ed il tempo.

La manifattura d'apparati di strade ferrate è condotta in diverse parti del paese; raili, tra-

verse, ecc., sono prodotti principalmente nei territori di ferro ed i raili d' acciaio a Sheffield. Locomotive sono fatte in ampiezza a Newcastle, Manchester, Leeds, Glasgow, ed altre città, ed anche alle fabbriche particolari di qualch'una delle compagnie principali di strade ferrate. C' è anche una manifattura estesa di wagoni da passeggeri o da mercanzie, ed altre specie di legni, a Birmingham.

Non vi sono statistiche generali della produzione d' apparati da strade ferrate nella Gran Brettagna, per via che molti sono compresi tra gli altri mestieri di mercanzie di ferro nel paese. In un tomo scritto sui prodotti dei territori di Tyne, Wear, e Tees, pubblicato nel 1864, fu asserito che dal principio della fabbrica di locomotive, circa 2,400 erano uscite dalle fabbriche di Newcastle solamente, delle quali più di 900 furono mandate in paesi forestieri.

Stimando il valore di ciascuna a 2,000£, il valore totale delle locomotive esportate monterebbe a 1,800,000£. A questa somma bisogna aggiungere il valore di quelle fabbricate per uso nella Gran Brettagna e l'Irlanda, a ragione di 1,500£, che fa 2,700,000£, ed un totale di 4,500,000£.

Il Sig. Timmins, in un rapporto sulla fabbrica di vagoni e carri a Birmingham, dice che la fabbrica di carrozze da strada ferrata, carri, ecc., cominciava in quella città nel 1838, e per la posizione centrale di essa è Birmingham divenuto il sito d'un negozio grandissimo. Si può formare qualch' idea dell' importanza di questa industria dal fatto che più di tredici mila miglia di strada ferrata sono in uso nel regno, impiegando circa 18,000 carrozze da passeggeri e 233,000 carri, ecc. Il Sig. Timmins stima il valore dei vagoni (comprese locomotive) di questo paese a circa 17,000,000£, e su questa somma c' è un' abbassamento annuale che monta a 1,250,000£. Il numero delle locomotive adoperate sulle strade ferrate del paese durante 1865 fu 7,414.

Però, oltre il provvedere i materiali per lavorare le strade ferrate nostrali, quantità grandi sono prodotte per esportazione. Nell' anno 1865 i seguenti articoli principali di fabbrica inglese in affinità con questa classe furono esportati dalla Gran Brettagna.

	Quantità	Valore
	No.	£
Carrozze di strada ferrata :		
Per passeggeri	1,261	177,000
Carri, carrette, ecc. . .	580	22,000
Ferro di strada ferrata :	Tons	
Raili, tie rods	330,588	2,627,000
Traverse di parmezzi . .	76,098	393,000
Ruote e asse	4,872	118,000
Altre specie	23,000	412,000
Meccanismo : macchine a vapore e porzioni delle medesime :		
Locomotive	—	945,000

Il progresso generale delle strade ferrate

nella Gran Bretagna negli ultimi undici anni è mostrato della statistica seguente :—

	In 1855	In 1865
Estensione di raill in uso	Mila 8,280	Mila 13,289
Fondo totale pagato, azioni, prestiti, ecc.	297,584,000	455,478,000
No. di passeggeri trasportati	118,595,000	251,960,000
No. di passeggeri per mila	14,323	18,960
Ricevute totali di mer- canzie	21,507,000	35,731,000
Spese totali di lavoro	10,299,000	17,149,000
Ricavo netto	11,208,000	18,582,000

Fra i miglioramenti più recenti si può citare l'usanza d' acciajo per railli, tire, ecc., e l'invenzione dell' apparato centrale di railli, per agire sui piani inclinati.

Miglioramenti considerabili sono stati fatti, anche in locomotive. Il Sig. Humber, nella sua opera sull' arte dell' ingegnere moderno, enumera i seguenti: 'L'addattamento delle locomotive per bruciare il carbone invece di coke, e per consumare il suo fumo. Il scaldare l'acqua provvedutovi col vapore sciupato. Equilibrio nel agire reciprocamente le parti rivolgenti della macchina, pel qual mezzo il logorare e lo sdruscire delle macchine e dei railli è ridotto di molto, ed il mantenimento di grande rapidità con sicurezza è fatto praticabile; ed il riscaldamento di molto il vapore prima d'entrare nei cilindri per via di mantenere il calore normale, e di ridurre la perdita di forza cagionata dal condensamento.'

Classe LXIV.

APPARATO TELEGRAFICO E PROCESSI RELATIVI.

Fu annunziato dal giuri di Classe 13 all' Esposizione di Londra nel 1862, che dopo l' Esposizione del 1851 non vi erano grandi scoperte nella scienza elettrica nè alcuna applicazione pratica ed importante dei principj di questa scienza. D' altra parte una grande estensione del sistema telegrafico è stato fatto, come anche l'introduzione di gomena submarine. Il fatto più importante dopo il 1862 è senza dubbio l'effettuazione fortunata del porre la gomina submarina fra il mondo vecchio e quello nuovo. Durante l'anno 1866 la terza intrapresa di stabilire una comunicazione telegrafica fra l'Irlanda e la Terra Nuova, una distanza di 1,670 miglia nautiche, fu coronata di successo; poiche non soltanto la nuova gomina submarina fu posta, ma ancora la gomina rotta nell' anno antecedente fu recuperata dalla profondità dell' oceano, e prolungata insino alle rive del Mondo Nuovo, così formando una doppia linea di comunicazione. La più bassa profondità dell' acqua fu trovata essere 2,400 *fathoms*, ossia meno di 2½ miglia nautiche. La prima gomina fu posta nel 1858, la quale fu finita e adoperata

per circa tre settimane quando cessò improvvisamente. La seconda gomina, posta in parte nel 1865, si ruppe in mezzo al mare. La gomina del 1858 era assai più sottile in fabbrica che le altre due gomena susseguenti, avendo solamente una sforza cedente di 3 tonnellate 5 quintali, ossia uguale a 4.85 volte il suo peso in acqua per miglio, mentre che il peso della gomina del 1865 era 7 tonnellate, 15 quintali, e quella del 1866 8 tonnellate 2 quintali, ossia uguale a undici volte il loro peso in acqua per miglio. La velocità della comunicazione nella gomina del 1866 è stimata dalla Compagnia Telegrafica Atlantica, con i strumenti migliorati ora in uso, essere non meno di otto parole per minuta.

Secondo un rapporto pubblicato dal Consiglio di Commercio, vi erano (ad eccezione dei telegrafi delle strade ferrate e telegrafi particolari) 16,953 miglia di telegrafi nella Gran Bretagna nell' anno 1865, i quali adoperavano 80,123 miglia di filo di ferro, circa 8,000 strumenti. L'aumentazione dei telegrafi particolari nella capitale e nelle altre grandi città è stata molto considerabile durante questi pochi ultimi anni. Grandi migliorazioni sono anche state fatte in ogni genere d' apparato telegrafico.

Classe LXV.

L'ARTE DELL' INGEGNERE CIVILE, LAVORI NAZIONALI ED ARCHITETTURA.

Il progresso che è stato fatto nelle tre ramificazioni dell' arte dell' ingegnere civile, lavori nazionali, ed architettura è tanto grande che non è facile di dare in poche righe un' idea proporzionata della sua importanza. L' estensione rapida di linee ferroviarie, oltre allo aver stabilite facili comunicazioni su tutti i punti del Regno, ha ancora aumentata la prosperità del commercio col movimento crescente di viaggiatori ed è stata una delle cause principali di progresso.

Molti importanti lavori d' ingegnere sparsi in tutte le parti del paese potrebbero essere notati. Nel territorio della metropoli solamente, cinque ponti nuovi da strada ferrata, e due ponti nuovi da pedoni sono stati costrutti per passare il Tamigi, ed un terzo ponte per pedoni stà ora per costruirsi a Blackfriars. Il ponte nuovo da pedoni a Westminster, e molti altri ponti, sono fatti di ferro, e sono notabili per il disegno ardito e per novità di costruzione. Una cosa notevole in qualche uni dei ponti nuovi di strada ferrata, è che sono retti intieramente su pilastri di ferro, i quali sono formati di cassoni di ferro vuoti affondati nel fiume senza aiuto di fabbricazione esteriore di alcuna specie. Questi cassoni sono empiti di rottami e calce, il tutto formando insieme colonne gigantesche che reggono il ponte. L' importanza di combinare l' adornamento con l' utilità non è stato dimenticato, ed in molti casi si vede nel ferramento degli edificj un buon gusto considerabile, che è un segno decisivo d' avanzamento

nella maniera di costruire i ponti di ferro. Tre altri lavori importanti, cioè la Strada Ferrata Sotterranea, l'Arginamento del Tamigi, ed il sistema dello scolamento generale, possono essere notati anche come segni di progresso. La Strada Ferrata Sotterranea è costruita in quasi tutte le sue parti sotto le strade principali della città, e quando sarà completa essa, formerà il circolo interno della comunicazione delle strade ferrate nella metropoli. La porzione che è già aperta al traffico fra le parti occidentali e orientali della città ha oltrapassato ogni speranza, in quanto all'utilità per il pubblico, e profitto per la compagnia. L'Arginamento del Tamigi, che è ora in un stato avanzato dalla parte nord del fiume, formerà una strada nobile da Westminster alla città, e quando il sistema dello scolatojo generale sarà tutto completo, essa renderà, si spera, all'acqua del Tamigi la sua limpidezza. L'estensione di bacini e porti avanza sempre, e somme grandi sono votate dal parlamento per la costruzione di porti di rifugio e moli; fra quelli che sono completi o in atto di costruzione si può notare i lavori a Portland, Dover e Holyhead. Il numero totale di fanali sulle rive della Gran Bretagna (eccettuato i lumi particolari dei porti) è 212, oltre 42 lumi di navi galleggianti.

In quanto all'architettura, un miglioramento grande è stato fatto in edificj nazionali d'ogni specie, e gli edificj nazionali di Londra si possono mettere in comparazione con quelli di qualunque altra parte del mondo. Le stazioni nuove delle strade ferrate nella metropoli dimostrano un talento d'ingegnere vistoso; mentre che le locande vaste che sono state fabbricate in connessione colle strade ferrate fanno grande onore agli architetti nostrali. Gli uffizj nuovi governativi a Whitehall, le chiese nuove, i banchi, gl'uffizj d'assicurazione, ed i casini (clubs), le case signorili, le sale da concerti, le case d'affitto pei braccianti, fabbricate negli dieci ultimi anni, possono anche essere citati come segni di progresso. Questi edificj che superano di molto gli antichi di medesima specie nella grandezza, sono anche notabili per dimostrare un più grande apprezzamento dei principj d'arte in quanto al disegno ed il metodo della decorazione.

L'introduzione di marmi di colore e di terra cotta per l'ornamentazione è stata coronata di successo in molti casi. L'esempio il più notevole del impiego di terra cotta sarà trovato nelle fabbriche che si costruiscono a South Kensington, le quali quando saranno complete formeranno uno degl'abbellimenti principali della metropoli. Intimamente associato coi lavori di questa classe si può notare il stabilimento recente dei consigli di lavori pubblici e di sanità, metropolitani e locali, il dovere dei quali è di vegliare alla condizione sanitaria e generale dei diversi territorj che hanno in cura, ai mezzi presi per diminuire il nocimento del fumo, ai miglioramenti nei giardini e parchi pubblici, ed anche a molt'altre cose meno grandi per il bene del pubblico.

La manifattura di serrature che sono esposte in questa classe è un negozio di grande importanza, ed è condotta principalmente a Wolverhampton ed in altre città di South Staffordshire.

Gli estratti seguenti, da un rapporto del Sig. J. C. Tiddesley all'Associazione Britannica in 1865, danno una vista molto completa delle ramificazioni principali della manifattura di serrature.

Località della Produzione, e Specie di errature fatte	Numero degli Impiegnanti	Numero approssimativo dei Braccianti	Guadagno ordinario ebdomadario
Wolverhampton: .			s. s.
Per gabinetti e cassettoni da denaro, prima qualità .	20	400	25 a 40
A leva, di dentro o di fuori dell'uscio, e d'imbrunitura superiore .	50	800	25 „ 40
Willenhall, compreso Short Heath, ecc.: .			
Di fuori o di dentro l'uscio, a doppio giro, lucchetti e per cassettoni .	275	3,000	11 „ 30
Walsall, compreso Bloxwich: .			
Lucchetti e da gabinetto, in ferro .	35	400	18 „ 30
Wednesfield: .			
Da gabinetto, e chiave .	50	200	15 „ 25
Brewood: .			
D'imbrunitura superiore .	30	150	18 „ 28
Totale .	460	4,950	

La produzione totale ebdomadaria di serrature nel distretto è stimata come segue:—lucchetti 24,000 dozzine; per gabinetti, casse e cassettoni 3,000 dozzine; esterne per uscio, interne, ed a doppio giro, 3,000 dozzine; d'imbrunitura superiore, 1,000 dozzine; buone serrature a leva ed altre specie, 500 dozzine; essendo una produzione aggregata di 31,500 dozzine di serrature per settimana.

Forse nessuna ramificazione d'industria locale di ha preso meno vantaggio del progresso recente scienza meccanica che il mestiere di serrature.

In quasi tutti i casi sono fabbricate precisamente nella medesima maniera che furono venti anni fa. Il fatto che il mestiere è fra le mani di capitalisti piccoli, si attribuisce la mancanza d'intrapresa e di quel progresso che ha caratterizzato le altre divisioni d'industria locale. Però, l'espansione recente del mestiere di serrature in Lancashire, Londra, ed altri territorj produrrà senza dubbio un cambiamento nel modo di fabbricare anche in questi luoghi. Lo stato degli artigiani impiegati in questa ramificazione d'industria è migliorato negli anni ultimi, ma c'è ancora duopo di miglioramento.

In quanto allo sviluppo d' arte nel mestiere di serraglieria, v' è ancor campo a miglioramento, sia nel disegno, sia nell' ornamento, senza scemar per nulla le qualità utili di questi articoli importanti. In connessione colla manifattura di serrature di qualità superiore, gli articoli fatti dai Sigr. Chubb e Hobbs sono tanto bene conosciuti che non richiedono veruna descrizione.

In quanto ai materiali per fabbricazione che sono prodotti nella Gran Brettagna, inoltre di pietre, lavagna, e calce, ecc., gran quantità di mattoni si fanno ogni anno in diverse parti del paese. Legname da costruzione è importato principalmente dall' America Settentrionale e dal Mare Baltico. Il commercio forestiere nelle specie principali di materiali da costruzione nell' anno 1865 fu come il seguente:—

Merci d' Importazione.

	Quantità	Valore
		£
Pezzi di marmo . . . tons	9,994	74,085
„ segati . . . cwts.	40,572	29,043
Legno e legnami non segato, o spaccato, anche legno di teca . . . } carichi	1,685,000	5,570,000
Legno d' abete, assicelle, ecc., segate o spaccate . . . } „	2,136,000	3,559,000
Legno pancocello . . „	105,000	206,000

Esportazione (Produzione inglese).

	Quantità	Valore
Mattoni . . . mille	33,221	86,245
Calcestruzzo . . . cwts.	2,257,000	285,898
Pietre:		
Lavagna per conto . „	7,134	49,664
„ „ peso . „	2,544	11,061
Altre d'ogni specie . valore	—	91,016
Gesso e calcina . . . tons	14,425	8,683
Mattoni da fare i tetti e da lastricare } mille	1,167	8,347
Tubi per condotti . No.	454,600	27,066

Classe LXVI.

NAVIGAZIONE E BATTELLI DI SALVAMENTO.

La rivoluzione portata nella costruzione di navi da guerra durante gli dieci o quindici anni passati è così ben conosciuta dal mondo, che sarebbe superfluo il darne qui dettagliata relazione; nondimeno, si può notificare che un gran negozio di fabbrica di lamine d' armatura per coprire le navi è cresciuta nel paese, in conseguenza del nuovo modo di costruire vascelli da guerra.

La tavola seguente farà vedere il numero delle navi ricoperte di lamine appartenendo alla Marina Reale, quelle a galla e quelle in costruzione, secondo il rapporto fatto al Parlamento nel 1866:—

	Numero	Tonnellate	Cannoni
A galla			
Navi ricoperte di lamine: Intieramente ricoperte	13	49,782	219
Ricoperte in parte	17	59,485	258
Batterie a galla: Intieramente ricoperte di lamine . . . }	4	7,367	62
Essendo costrutte			
Navi ricoperte di lamine: Intieramente ricoperte	2	9,732	12
Ricoperte in parte . . .	2	8,223	22

Una nave costrutta sul metodo 'cupola' del Capitano Coles è inclusa nella lista di vascelli a galla, e due sul medesimo metodo sono in istato d' essere costrutte, tutti e tre i vascelli essendo intieramente ricoperti di lamine.

Mettendo a parte, nondimeno, la considerazione di vascelli da guerra per i mezzi di difesa, e per la protezione del commercio, un paese che impiega annualmente un naviglio di quasi 50 milioni di tonnellate nel suo negozio forestiero e nostrale deve essere grandemente occupato nella costruzione di vascelli. I cantieri principali sono sulle rive dei fiumi Tamigi, Humber, Tyne, Wear, Tees, Severn, Mersey, e Clyde, e anche a Dundee, Belfast e molt' altri porti del regno.

Il tonnellaggio dei bastimenti mercantili appartenendo alla Gran Brettagna e le isole nei mari inglesi, era nel 31 dicembre 1865:—

	Tonnellaggio totale
Bastimenti a vele . . .	4,937,000
„ „ vapore . . .	824,000
Totale . . .	5,761,000

Qualch' idea dell' importanza della costruzione di vascelli dal punto di vista commerciale può essere inferita dalla quantità di navi nuove costrutte annualmente nel paese. La tavola seguente mostra la quantità di bastimenti costrutti e registrati durante gli ultimi tre anni:—

Anni	Vascelli a Vela		Vascelli a Vapore	
	Vascelli	Tonnellate	Vascelli	Tonnellate
1863 . . .	883	255,000	280	110,000
1864 . . .	873	272,000	376	161,000
1865 . . .	922	236,000	382	180,000

Del numero totale di vascelli costrutti nel 1865, 844 bastimenti di 153,000 tonnellate furono fatti di legno, e 460 bastimenti di 262,000 tonnellate, di ferro.

Il ferro usato nella costruzione di vascelli di ferro è una produzione del paese, ma la legna adoperata nel costruire i vascelli di legno è, per lo più, importata fuor del regno. Grande quantità di canapa e di fibra di noce di cocco per fornire fune e sartiame, sono anche importate, una notizia della quale si troverà nella Classe 55.

Non vi sono rapporti recenti del numero delle persone impiegate nella costruzione di vascelli, ecc., nella Gran Bretagna. Secondo il censo del 1861, la quantità totale della gente impiegata nella costruzione di bastimenti, barche, e barche a fondo piano, e nella fabbrica di alberi e vele, era :—

Divisioni	Uomini	Donne	Totale
In Inghilterra e Galles	43,704	75	43,779
Scozia . . .	9,148	6	9,154
Irlanda . . .	2,220	9	2,229
	55,072	90	55,162

La tavola seguente dei prezzi medj dei salari pagati ai braccianti nel negozio della costruzione di vascelli è composta dai rapporti forniti al Consiglio di Commercio, dalle rispettive Camere di Commercio nell' anno 1866 :—

Descrizione di Lavoro	Località	Prezzo dei Salary per Settimana	
		s.	s.
Costruttori di vascelli . . .	A Hull . . .	. .	33
	Bristol . . .	. .	30
	Glasgow . . .	. .	30
	Dundee . . .	24 a	26
Fabbri di vascelli . . .	Belfast . . .	. .	33
	Hull . . .	27 „	33
	Bristol . . .	. .	28
	Glasgow . . .	20 „	32
Battitori ossia aiutanti . . .	Dundee . . .	24 „	30
	Belfast . . .	. .	26
	Hull . . .	15 „	18
	Bristol . . .	. .	18
Segatori . . .	Glasgow . . .	14 „	18
	Dundee . . .	. .	16
	Belfast . . .	. .	13
	Hull . . .	27 „	33
Legnajuoli . . .	Bristol . . .	. .	24
	Dundee . . .	. .	24
	Belfast . . .	. .	22
	Hull . . .	26 „	28
Falegname di vascello . . .	Bristol . . .	. .	30
	Glasgow . . .	24 „	29
	Dundee . . .	. .	23
	Belfast . . .	. .	30
Proti . . .	Hull . . .	. .	33
	Bristol . . .	. .	30
	Dundee . . .	24 „	26
	Hull . . .	42 „	63
Apprendisti . . .	Bristol . . .	. .	42
	Dundee . . .	30 „	45
	Belfast . . .	. .	39
	Hull . . .	5 „	10
Braccianti . . .	Glasgow . . .	8 „	12
	Dundee . . .	6 „	12
	Belfast . . .	5 „	10
	Hull . . .	18 „	21
Fabbricanti di lamine di ferro e di caldaje . . .	Bristol . . .	. .	16
	Glasgow . . .	12 „	16
	Dundee . . .	13 „	15
	Bristol . . .	. .	36
	Glasgow . . .	28 „	30
	Dundee . . .	. .	27

Descrizione di Lavoro	Località	Prezzo dei Salary per Settimana
		s. s.
Fabbri di ferro in forma d' angoli . . .	A Glasgow . . .	24 a 29
	Dundee . . .	. . 23
Ristrignatori . . .	Glasgow . . .	. . 26
	Dundee . . .	. . 23
' Holders-up ' . . .	Bristol . . .	. . 18
	Glasgow . . .	. . 16
	Dundee . . .	. . 15

Nella nostra relazione sul progresso che è stato fatto durante gli anni recenti nella costruzione di navi in questo paese, non sarebbe giusto di omettere che inoltre la costruzione della nuova flotta ricoperta di lamine, il Governo ha compito la conversione di quasi tutte le navi a vela appartenendo alla Marina Reale in vascelli di vite a vapore, così provvedendo il paese con una marina a vapore di gran forza.

Nella costruzione generale il principio della linea ondeggiante, 'wave line,' introdotto dal Signor Scott Russell, è stato grandemente adottato dai costruttori di vascelli, ed in conseguenza dell' uso generale di ferro i bastimenti sono ora fatti assai più lunghi e con linee più fine, in questo modo accrescendo molto la loro facilità di muovere a vela o a vapore, a lor potere il carico, si ottengono risultati commerciali più vasti. Fra le invenzioni e le migliorazioni le più recenti, si può citare navi a doppia vite, la 'cigar' nave, l' uso d' acciaio invece di ferro per la copertura esteriore di vascelli, ed il nuovo metodo di propulsione idraulico.

La nave reale 'Waterwitch,' la quale è provvoluta con questo nuovo sistema di propulsione, ha fatto ultimamente alcune prove sperimentali fortunate; il meccanismo consiste in una gran ruota attortigliata spiralmemente, chiamata il 'Ruthven propeller,' la quale attira l' acqua dentro il fondo del bastimento, e la getta fuori da un' apertura praticata ai due lati del vascello, vicino alla linea a fior d' acqua.

Riguardando l' uso dei segnali nella marina, una commissione internazionale fu tenuta recentemente a Parigi per favore del Sig. Marchese di Chasseloup-Laubat, il Ministro della Marina Francese, e sotto la presidenza del Sig. Ammiraglio la Roncière le Noury. Il Sig. W. F. Larkins, del Consiglio di Commercio, e il Sig. Sallandrouze de Lamornaix, della Marina Imperiale Francese, furono autorizzati dalla Commissione di esaminare e correggere il libro dei segnali. Il 'Codice Internazionale di Segnali Commerciali' è stato quindi adottato nelle navi di guerra, e nei bastimenti mercantili di tutti i paesi, per la comunicazione reciproca, sia sul mare, sia colle stazioni e semafori a terra.

Il codice è differente dagli altri codici adottati fin' ora, avendo le bandiere del codice marcate colle iniziali B. C. D., invece di essere numerate 1, 2, 3, ecc.

Il vantaggio di averle così marcate è, che 18 segnali distinti sono ottenuti, i quali (presi 2 insieme, 3 insieme, e 4 insieme) danno 78,642 combinazioni separate per fare segnali, ciascun

essendo perfetto da sè, che e non vi sono più di quattro bandiere in alcun segnale nell' altezza.

In tutto il codice, il principio è sempre mantenuto, che la forma dell' altezza indicherà la qualità del segnale; che l' altezza sia di 2, 3, o 4 bandiere. Per esempio, un segnale fatto con due bandiere del codice reclama la maggior attenzione, essendo tutti i segnali di 2 bandiere più importanti.

Come pure in altezza di 4 bandiere, se la bandiera B. (triangolare) sia la più alta, il segnale sarà sempre geografico.

Se alcune delle 13 bandiere quadrate del codice sono le più alte in una altezza di 4 bandiere, il segnale sarà sempre uno che indica il nome d' un bastimento.

Una lista dei bastimenti è pubblicata nel codice come annesso al libro segnali, dando il nome d' ogni bastimento, la sua portata, e forza motrice (se è a vapore). Il codice è bastantemente esteso per ammettere l' appropriazione di più di 40,000 segnali distinti per i nomi di bastimenti esclusivamente.

I governi della Francia e della Gran Bretagna hanno (come fu fatto qualche anno fa in proposito ai fanali di vascelli a vapore) indirizzata una lettera ai governi dei principali stati marittimi raccomandando l' adozione del codice commerciale, con l' intenzione di stabilire un sistema uniforme internazionale di segnali sul mare.

Il governo francese fu il primo ad adottare questo codice, a *preferenza di ogn' altro*, nelle navi francesi, ed a tutte le stazioni di semafori, ed i governi della Spagna, il Portogallo, e l' Italia hanno già notificato la loro intenzione di seguire l' esempio della Francia.

C'è ancora un' altra novità nel codice commerciale la quale deve essere osservata. Essa provvede per fare segnali a distanza, per mezzo d' un codice che deve essere adoperato quando non è possibile di vedere i colori delle bandiere. Questo è effettuato coll' uso di 1 o 2 palle nere, le quali sono inalberate, congiunte ad ognuna delle due bandiere del codice, e cotesti segnali possono essere scambiati con i semafori già posti sulle rive della Francia, come è spiegato nel codice nel libro segnali a distanza.

Il codice commerciale è stampato e pubblicato dal Sig. W. Mitchell, 54 Gracechurch-street, e dai Signori Galignani a Parigi.

Una classe importantissima d' oggetti posti in questa divisione dell' Esposizione è quella delle barche da salvare i naufraghi ed apparato per salvare la vita sul mare.

In un paese che possiede un sì grande commercio forestiero e costeggiante, oltre le pesche estensive in ogni parte delle coste, il provvedimento di mezzi ampj per dare soccorso ai

vascelli in pericolo è oggetto di somma importanza. Un rapido sguardo dato alla carta annuale dei naufraghi della Gran Bretagna basterà per far vedere la quantità di lavoro che resta da fare per le barche di salvamento. La quantità totale di bastimenti perduti o danneggiati nel 1865 era 2,012, ed il numero totale delle anime perdute 698. Di questo numero 275 perirono in vascelli che andarono a fondo; 53 a bordo dei vascelli che vennero in collisione, 335 in vascelli gettati a secco, e 35 da altre cause differenti. Quando si ricorda che questa perdita di anime avvenne in un tempo che il nostro sistema di barche da naufraghi era nel suo più alto stato d' efficienza, è chiaro che ci resta da fare ancora molto per provvedere al soccorso dei nostri simili onde preservarli da una morte prematura e tanto crudele.

La manutenzione delle barche di salvamento è sotto l' autorizzazione dell' Istituzione Reale Internazionale di Barche di Salvamento, lo quale è sostenuta da contribuzioni volontarie. Durante i dieci anni passati, grandi miglioramenti sono stati fatti nella costruzione delle barche, e la Società ha posto molte barche addizionali sulle parti pericolose delle coste, le quali insino ad ora erano intieramente private dei mezzi di dar aiuto ai vascelli in pericolo. Il numero totale delle barche appartenenti all' Istituzione (nov. 1866) sulle diverse coste della Gran Bretagna montava a 172, delle quali 125 erano in Inghilterra e la provincia di Galles, 19 nella Scozia e 28 nell' Irlanda. Vi erano ancora circa 20 altre barche in differenti località del regno mantenute da fondi locali. In addizione alle barche di salvamento, il Consiglio di Commercio mantiene 249 stazioni con apparato di razzi per salvare i vascelli; esse sono lavorate dai guardacoste. Saggi d' una barca di salvamento migliorata, ed ancora del apparato di razzi ed altri mezzi per salvare la vita sul mare, si troveranno esposte in questa classe.

Il numero delle anime salvate ne 1865 era, da barche appartenendo all' Istituzione, 532; da barche ordinarie, 182; e dall' apparato di razzi, 180.

Il costo per stabilire una stazione di barche di salvamento è di 620£. Cioè:—

	£
Barca di salvamento, apparecchio comprendendo cinti di sughero per l' equipaggio e carrozza di trasporto per la barca . . .	420
Tettoja per la barca (prezzo medio)	200
Totale . . .	620

Il prezzo medio annuale per mantenere una stazione di barca di salvamento è 50£.

GRUPPO VII.

(CLASSI LXVII.-LXXIII.)

CIBO (FRESCO O PRESERVATA) NEI VARJ STATI DI
PRESERVAZIONE.

Classe LXVII.

GRANI CEREALI ED ALTRI PRODOTTI FARNACEI E COMMESTIBILI E PRODOTTI RICAVATI DA ESSI.

GLI oggetti esposti in questa classe posseggono un grande interesse, essendo intimamente in rapporto con la capacità del paese di fornire uno degli articoli principali del cibo necessario alla sua popolazione, e benchè la produzione di grani cereali nella Gran Bretagna non basti a provvedere alle necessità della popolazione, un' area grande del paese è destinata alla loro coltivazione. Insino all' anno 1866, non vi erano rapporti esatti dell' area di tutto il regno che fu sotto coltivazione. La tavola seguente esporrà il totale raccolto di ciascuna specie di grano, in quell' anno, nelle diverse divisioni del regno:—

	Jugeri in Coltivazione		
	In Inghilterra	In Galles	In Scozia
Gran gentile	3,161,431	113,862	110,101
Orzo .	1,877,387	146,323	213,619
Avena .	1,503,990	251,893	1,004,040
Segala .	50,570	2,452	7,055
Fave .	492,586	3,534	28,537
Piselli .	314,206	3,010	3,188
Totale .	7,400,170	521,074	1,366,540

	In Irlanda	Nell' Isola di Man	Nell' Isola di Jersey	Nell' Isola di Guernsey, ecc.
Gran gentile	300,474	8,075	2,702	990
Orzo .	155,777	7,736	111	532
Avena .	1,697,648	11,010	288	428
Segala .	7,753	9	13	27
Fave .	12,175	320	15	43
Piselli .	2,606	116	13	21
Totale .	2,173,433	27,266	3,142	2,041

Non vi sono rapporti della quantità delle specie differenti di grano prodotte nel paese, ma in quanto al gran gentile, è stimata montare a circa 27 staj per jugero, in Inghilterra, in Galles, e in Scozia, a 25 staja per jugero in Irlanda. Questo darebbe una produzione possibile di circa 12,364,000 quarti per la Gran Bretagna, meno l' Isola di Man e le isole della Manica.

La tavola seguente mostra la proporzione delle raccolte di grano sull' area totale del paese che coltiva raccolti o pascolo.

Divisione	Area totale dove cresce ogni specie di raccolta, nudo, maggese ed erba	Per cento di Area totale dove cresce raccolta di grano
Jugeri		
Inghilterra . .	22,262,000	33.3
Galles . . .	2,284,000	22.8
Scozia . . .	4,158,000	32.9
Isola di Man .	83,000	32.9
Isole della Manica :		
Jersey . . .	20,000	15.4
Guernsey . .	12,000	17.0
Irlanda . . .	*15,549,000	14.0

I distretti principali dove cresce il grano in Inghilterra sono posti nelle parti est e sud-est del paese; le provincie centrali e del ouest producono anche il grano, ma una grande estensione di terreno è per pascolo. In Scozia la medesima divisione esiste, il grano crescendo principalmente nelle provincie d' est, e l' erba nel sud e nel sud-ouest. In Irlanda i distretti produttori di grano sono situati al nord ed al sud dell' isola.

Gli estratti seguenti, tolti dall' opera del Signor Caird sull' agricoltura inglese, forniscono perfetti ragguagli sui cambiamenti che sono stati fatti nella coltivazione dei poderi durante il presente secolo. Comparando le statistiche riunite del 1850 e 1851 con l' informazione dataci dal Signor A. Young, in 26 contee in Inghilterra nel 1770, fu osservato il seguente progresso:—

		1770	1850
Affitto di terreno coltivato . . .	per jugero	s. d. 13 4	s. d. 26 10
	Staj	23.0	26.4
Produzione di grano . . .			
Salari dei braccianti, prezzo medio . . .	per settimana	s. d. 7 3	s. d. 9 7
	Affitto di capanne . . .	8.	1 5
Prezzo del pane . . .	per libbra	1 1/2	1 1/4
	„ della carne . . .	3 1/2	5
„ del burro . . .	„	6	1 0

* Questa misura di jugeri include le pasture delle montagne le quali non sono incluse negli altri rapporti, e in conseguenza fa vedere il per cento del grano meno che sia in verità, se fosse stimato sulla medesima base come nelle altre divisioni del regno.

Chiara apparisce che in una durata di 80 anni il prezzo medio dell' affitto di terra arabile ha aumentato 100 per cento, il prodotto medio del grano ha aumentato 14 per cento, il salario del bracciante 34 per cento, l' affitto della sua capanna 100 per cento, mentre che il prezzo del pane, il cibo importante e principale del bracciante inglese, è quasi simile a quel che fu nel 1770. Il prezzo del burro ha aumentato del 100 per cento, la carne circa 70 per cento, e la lana più di 100 per cento. Dopo l' anno 1850, il valore del burro, della carne, e della lana è anche aumentato considerabilmente in prezzo.

L' aumento del 14 per cento nella produzione media del grano non indica l' aumento totale del prodotto. L' estensione del terreno in coltivazione era, senza dubbio, assai meno che al presente; e la produzione stimata allora fu il medio di una qualità migliore di terreno, la più buona essendo certamente la prima coltivata. La prosperità della produzione misurabile del grano dev' essere il risultato dell' ammiglorata coltivazione, malgrado l' influenza contraria presentata dall' impiego di terreno inferiore. L' esteso aumento di terreno ora messo a grano, colla sua produzione massima, non ha, però, alcuna proporzione coll' aumento degli affitti; e il prezzo del grano è quasi simile adesso a quel che fu a quel tempo. Bisogna in conseguenza riguardare i rapporti sul bestiame per spiegare questa discrepanza.

‘Mentre che il prezzo del grano non ha cresciuto, la carne, il burro, e la lana hanno quasi raddoppiato di valore. La quantità prodotta è anche grandemente cresciuta, lo stesso terreno ora pasturando vacche più grandi, bestie che arrivano più presto a maturità ed a maggior dimensione, e pecore di miglior peso e qualità, che forniscono più lana. Nelle cascinie e nei poderi adattati per la produzione di bestiame, e specialmente di pecore, il valore della produzione annuale è andato del pari coll' aumentazione dell' affitto. Per i coltivatori del grano, il caso è assai differente. Nei tempi passati i terreni gravi argillosi erano riguardati come i migliori suoli del paese per grano. Per questi, pagavano l' affitto il più caro, la decima la più pesante, ed impiegavano il più gran numero di contadini. Ma i miglioramenti moderni hanno intieramente rovesciato la loro posizione. L' estensione delle raccolte erbacce, e la pastura del bestiame, hanno così ammiglorato la qualità produttiva dei terreni leggieri, che eglino producono grano a meno costo che i terreni argillosi, inoltre al vantaggio importante, che il bestiame mantenuto su questi terreni rende anche un gran profitto.’

L' area totale sulla quale crescevano raccolte erbacce nella Gran Brettagna nel 1866 (i primi rapporti perfetti che sono stati riuniti) era 5,055,220 jugeri, dei quali 2,750,000 jugeri erano in Inghilterra; 139,265 nella provincia di Galles; 663,257 in Scozia; 1,482,091 in

Irlanda; 12,208 nell' Isola di Man; 5,253 in Jersey; e 2,938 in Guernsey.

Il prezzo medio di grano inglese, orzo ed avena, per quarto imperiale, durante gli anni cinque, 1861 insino al 1865, era :—

	Gran gentile	Orzo	Avena
	s. d.	s. d.	s. d.
1861	55 4	36 1	23 9
1862	55 5	35 1	22 7
1863	44 9	33 11	21 2
1864	40 2	29 11	20 1
1865	41 10	29 9	21 10

È già stato detto che la produzione nostrale del grano nella Gran Brettagna è insufficiente ai bisogni della popolazione, e grandissime quantità sono in conseguenza importate. Durante gli anni dodici dal 1854 insino a 1865, il medio valore annuale del grano importato nel regno, montava a non meno di 24,000,000 di lire sterline. Le quantità delle specie principali di grano importate nell' 1865 e le fonti della provvisione, sono indicate nella tavola seguente :—

Paesi dai quali importate	Quantità rapportate per Consumazione
Gran gentile:	Quintali
Russia . . .	8,160,000
Danimarca . . .	647,000
Prussia . . .	5,426,000
Francia . . .	2,266,000
Nord America Britannica	307,000
Stati Uniti d' America	1,183,000
Altri paesi . . .	2,946,000
Totale . . .	20,935,000
Farina:	
Francia . . .	3,058,000
Nord America Britannica	181,000
Stati Uniti d' America	262,000
Altri paesi . . .	382,000
Totale . . .	3,833,000
Orzo:	
Danimarca . . .	1,550,000
Prussia . . .	770,000
Città Anseatiche	400,000
Francia . . .	1,583,000
Turchia . . .	2,087,000
Altri paesi . . .	1,428,000
Totale . . .	7,818,000
Avena:	
Russia . . .	1,963,300
Svezia . . .	3,090,000
Danimarca . . .	1,071,000
Prussia . . .	65,000
Olanda . . .	726,000
Altri paesi . . .	796,000
Totale . . .	7,711,000

Paesi dai quali importate	Quantità rapportate per Consumazione Quintali
Gran turco:	
Russia	1,194,000
Valacchia e Moldavia	545,000
Turchia	3,178,000
Stati Uniti dell' America	1,771,000
Altri paesi	399,000
Totale	7,087,000

I paesi notati nella soprascritta tavola, ad eccezione dell' Egitto, il quale per molti anni fornì gran quantità di frumento, orzo, e gran turco, sono stati le fonti principali per la provvisione durante gli ultimi quindici anni. In conseguenza della recente guerra civile negli Stati Uniti, la quantità del grano ricevuto da quel paese nel 1865 era considerabilmente meno delle importazioni ordinarie. Il grano è soggetto a un dazio d' importazione di 3d. per quintale, e la farina a 4½d. per quintale.

Grandissime quantità di riso, sagou, tapioca, semolino, maccheroni, e vermicelli, i quali non sono prodotti nel paese, sono anche importate. Nell' anno 1865 le importazioni seguenti furono fatte:—

Articoli	Quantità	Valore
Riso nel guscio	6,478	£ 15,310
„ sgusciato	1,938,816	1,330,941
Sagou	148,582	121,285
Tapioca	22,363	37,025
Semolino	2,453	2,773
Maccherino e vermicelli „	7,486	18,012
Totale	1,525,346	

La quantità totale della gente impiegata nell' agricoltura, cioè nella coltivazione di poderi e prati, in ogni divisione della Gran Bretagna nell' anno 1861 era:—

Divisione	Uomini	Donne	Totale
In Inghilterra e Galles	1,457,075	376,577	1,833,652
Scozia	215,716	120,773	336,489
Irlanda	850,121	81,714	931,835
Totale	2,522,912	579,064	3,101,796

Lo stato del contadino in ogni parte del regno è stato per lungo tempo il soggetto di considerazione. Riguardato come un impiego, la coltivazione del terreno fornisce meno remunerazione al bracciante che qualunqu' altra occupazione. I ragioni dei salarj variano considerabilmente in ogni parte del paese, ma anche in quei distretti dove si paga i migliori salarj la condizione del contadino non è punto soddisfacente.

Secondo i rapporti fatti al Parlamento nell' anno 1861, i prezzi seguenti furono pagati ai contadini nelle tre divisioni del paese:—

Rate altissime e bassissime del Prezzo medio dei Salarj, per Settimana, senza Affitto o Cibo.

Divisione e Distretti	Uomini		Donne		Bambini avendo meno di 16 Anni	
Inghilterra:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sud-est	10 0	a 13 6	3 6	a 6 0	2 6	a 6 0
Sud Centrale	10 0	„ 13 0	3 6	„ 5 0	2 0	„ 8 0
Est	10 0	„ 13 0	3 6	„ 5 0	1 6	„ 8 0
Sud-ouest	8 0	„ 10 0	3 0	„ 5 0	1 6	„ 7 0
Ouest Centrale }	9 0	„ 12 0	3 0	„ 5 0	2 0	„ 6 0
Norde Centrale }	12 0	„ 15 0	4 0	„ 6 0	1 6	„ 8 0
Nord-ouest	10 0	„ 15 0	3 6	„ 11 0	2 0	„ 6 0
Nord	12 0	„ 16 6	4 2	„ 8 0	3 0	„ 7 6
Vicinanza di Galles }	10 0	„ 13 0	2 6	„ 6 0	1 6	„ 9 0
Galles	8 0	„ 15 0	3 0	„ 6 0	3 0	„ 9 0
Scozia (circa)	10 0	„ 16 0	4 0	„ 8 0	2 0	„ 7 0
Irlanda (circa)	5 7	„ 10 2	2 9	„ 5 0	1 7	„ 4 0

I salarj ebdomadarj di lavoro assegnato scorrono da 2s. a 5s. in più delle soprascritte rate.

Molto progresso è stato fatto nella scienza d' agricoltura nella Gran Bretagna durante gli ultimi anni, e più specialmente in Inghilterra e Scozia. I metodi perfezionati di coltivare i poderi, che sono stati introdotti, nei quali è incluso un miglior sistema di successione di raccolte, un' ampia estensione di scolamento e dell' uso di concimi artificiali, siccome l' impiego di macchine per molti lavori di coltivazione hanno condotto l' industria agricola del paese in una assai migliore posizione di quella che occupava prima. L' aumento della produzione del bestiame sui poderi è stata accompagnata da risultati molto soddisfacenti, e gli esperimenti recenti della coltivazione dei terreni argillosi per mezzo della macchina a vapore sono stimati essere assai fortunati. Una relazione di macchine d' agricoltura, le quali sono ora largamente impiegate per tutto il paese, si troverà nella Classe 48. Le esposizioni annuali della Società Reale d' Agricoltura, e le diverse esposizioni internazionali ed altre, porsero il mezzo d' aumentare l' uso del meccanismo il più perfetto; mentre che i studj di molti chimici eminenti, e di uomini scientifici, hanno portato sì benefici miglioramenti alla natura del terreno, da contribuire grandemente al buono stato dell' industria agricola della Gran Bretagna.

Classe LXVIII.

PANE E PASTICCERIA.

Nello spazio di pochi anni, la fabbricazione di pane a macchina ha aumentato con rapidità. Fra le macchine per fare il pane esposte all' Esposizione di Londra nel 1862, quelle da impastare il pane furono meglio rappresentate. Queste macchine furono esposte come effettuant un risparmio di tre per cento nella farina solamente. Un forno di campagna per cuocere i biscotti fu lodato dal giurì sulla Classe 7, o

espressero la speranza che per riguardo alla salute, alla pulitezza, ed anche per il ben essere degl' artigiani impiegati nel mestiere, l' uso generale di meccanismo per fare il pane sarebbe adottato dai fabbricanti.

La consumazione annuale di grano, e farina di grano, per cibo nella Gran Brettagna è stimata circa 20 milioni di *quarters*, o $5\frac{1}{2}$ bushels per capo.

Il numero di fornaj e confettieri in ogni divisione della Gran Brettagna nel 1861 fu:—

	Fornaj	Confettieri
In Inghilterra e Galles .	54,140	14,526
Scozia	10,894	1,924
Irlanda	9,293	1,547
Totale	74,327	17,997

Non vi sono rapporti ufficiali del prezzo del pane. Il prezzo medio di grano per *quarter* in Inghilterra e Galles durante i cinque anni 1861-65 fu:—

	s.	d.
1861	55	4
1862	55	5
1863	44	9
1864	40	2
1865	41	10

Classe LXIX.

SOSTANZE UNTUOSE USATE PER CIBO; LATTE E OVA.

Gli olii buoni da mangiare non sono prodotti nella Gran Brettagna, e in quanto agl' altri oggetti compresi in questa classe, la produzione nostrale non basta alla richiesta della popolazione. Quantità grandi di burro, formaggio, e uova sono importate ogn' anno nel paese. Le statistiche relative al commercio forestiere negl' oggetti compresi in questa classe sono le sottoscritte:—

Quantità e Valore d' Oggetti importati per Consumazione.

Anni	Quantità			
	Olio d'Oлива	Burro	Formaggio	Ova
	Tons	Cwts.	Cwts.	Gt. Hundreds
1861	15,981	987,000	698,000	1,694,000
1862	20,077	1,024,000	695,000	1,936,000
1863	18,940	957,000	747,000	2,224,000
1864	15,726	1,038,000	826,000	2,794,000
1865	30,716	1,068,000	842,000	3,033,000
	Valore			
	£	£	£	£
1861	908,600	4,874,000	1,618,000	550,000
1862	1,152,800	4,860,000	1,530,000	594,000
1863	1,085,800	4,402,000	1,863,000	673,000
1864	902,200	5,569,000	2,151,000	835,000
1865	1,616,900	5,871,000	2,432,000	928,000

L' olio d' oliva è importato principalmente dall' Italia e dalla Spagna; il burro dall' Olanda,

Belgio, Francia, Amburgo, e gli Stati Uniti, e le uova da Francia.

Il valore di burro e formaggio di fabbrica inglese esportato durante i cinqu' anni 1861-65 fu:—

Anni	Burro	Formaggio
	£	£
1861	466,000	130,000
1862	374,000	127,000
1863	472,000	157,000
1864	327,000	147,000
1865	333,000	111,000

Classe LXX.

CARNI E PESCI.

Benchè la consumazione di carne nella Gran Brettagna sia molto grande, non c' è mezzo di sapere il montante del consumo annuale. A causa del prezzo alto della carne negl' anni recenti, diversi progetti per l' introduzione di carne conservata dall' America Meridionale sono stati provati, ma sin' ora sono rimasti senza risultati importanti.

Il mare che circonda le coste delle Isole Britanniche fornisce una provvista abbondante di pesce. Le specie principali sono baccalà, rombi, soglie, sgombrì, merluzzi, aringhe, saracche, gambaretti, ostriche, e gamberi. Secondo il rapporto della commissione ultimamente nominata per informarsi della condizione della pesca inglese, fu detto che la provvista di pesce sulle spiagge della Gran Brettagna aumenta ogn' anno. La decrescenza nella provvista d' ostriche durante gl' ultimi tre anni è attribuita ad una successione di stagioni cattive che ne impedivano la generazione, però questa causa non è formalmente accertata.

Le pescagioni di salmoni d' Irlanda e di Scozia sono anche d' un' importanza considerabile; ma non vi sono rapporti della loro produzione annuale; quantità grande di salmoni sono esportate.

Le ramificazioni principali del negozio della pesca inglese sono quelle d' aringhe e saracche; grande quantità di queste due ultime specie di pesce essendo esportate ogn' anno, oltre la straordinaria quantità che si consuma nel paese.

Dopo l' estensione di comunicazioni per strade ferrate, la consumazione di pesce ha aumentato di molto, e la maggior parte delle città grandi del regno ora sono ogni giorno provvedute di pesce fresco. Non vi sono statistiche delle pescagioni inglesi, benchè la pesca d' aringhe a Yarmouth, come anche la pesca di saracche sulle spiagge di Devon e Cornwall, danno impiego a un gran numero di barche e pescatori. Oltre queste due ramificazioni di pesca, le barche da pescare sono impegnati in altre stagioni nel pigliare i merluzzi, i sgombrì, le soglie, i baccalà, ecc. ecc. Si stima che vi siano circa 800 e 900 barche da pesca impe-

gnate per provvedere del pesce al mercato di Londra; e asommando la quantità di pesce per ogni barca di 90 *tons*, questo farebbe un totale di circa 80,000 *tons* di pesce; senza calcolare le quantità d'aringhe, d'alici, pesce di scorza, ed altre specie di pesce che sono procurate con altri modi di pescare.

Il quadro seguente rappresenta il numero e la tonnellata di barche, e degl' uomini, e ragazzi impiegati nei pescagioni di Scozia, dell' Isola di Man, e d' Irlanda nell' anno 1864:—

	Pescagioni		
	Scozia	Isola di Man	Irlanda
No. di barche . . .	12,703	628	9,300
Tonnellate . . .	92,887	5,635	—
No. d' uomini e ragazzi . . .	40,934	2,550	40,946

Il prodotto delle pescagioni nel medesimo anno fu:—

	Scozia	Isola di Man
Baccalà e ling (altre specie):		
Preso o comprato . . .	161,000	19,600
Salato . . .	107,600	138
Aringhe:		
Preso . . .	691,000	44,060
Salate . . .	609,000	34,000

Non vi sono rapporti del prodotto delle pescagioni irlandesi, ma negl' anni recenti hanno diminuito. Si dice che la maggior parte delle barche da pesca in quel paese appartengono ai coltivatori che dimorano sulla spiaggia, e che son impegate solamente di tempo in tempo; il pesce preso non è mandato al mercato, ma è venduto nei dintorni della pesca.

Non vi sono rapporti dei prezzi medj della carne nelle parti diverse del paese. I prezzi medj della carne al mercato di bestie nella metropoli negl' anni 1863-65 furono:—

Per Stone di 8 Libbre (escludendo i Ritagli).

	1863	1864	1865
Bestie:	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Inferiori . . .	3 7 $\frac{3}{4}$	3 9	3 10
2da classe . . .	4 2	4 4 $\frac{3}{4}$	4 4 $\frac{3}{4}$
3za classe (eccellenti grandi) . . .	4 8	4 9 $\frac{1}{2}$	4 9 $\frac{3}{4}$
4ta classe . . .	4 11 $\frac{3}{4}$	5 1	5 2
Pecore:			
Inferiori . . .	4 0	4 2 $\frac{1}{2}$	4 8
2da classe . . .	4 7 $\frac{1}{2}$	4 9 $\frac{3}{4}$	5 4
3za classe (lana lunga e comune) . . .	5 1	5 3	5 11
4ta classe (South Downs) . . .	5 5 $\frac{1}{2}$	5 8	6 4 $\frac{1}{2}$

Benchè i prezzi sopraseritti non danno alcun' indicazione del prezzo al minuto della carne, che è pagato dai consumatori generalmente, nondimeno rappresentano con qualch' esattezza il prezzo all' ingrosso di quest' articolo importante di cibo. In quanto al prezzo del pesce, i com-

missarij delle pesche ottenevano due rapporti mostrando le variazioni del prezzo in un porto di mare ed in un borgo dell' interno fra gl' anni 1856 e 1865 che furono come segue:—

A Newcastle-upon-Tyne		1856		1865	
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Rombo . . . per stone	2	0	2 6	4	6 6 6
Sogliole . . . „ „	9	1	3	1	9 „ 2 0
Baccalà . . . ciascuno	9	1	3	2	6 „ 3 0
Merluzzo piccolo . . . „	3	„	9	6	„ 1 3
Haddock . . . „	3	„	6	6	„ 9
Razza . . . „	6	„	9	2	6 „ 3 0
Merluzzo . . . per stone	9	1	0	1	3 „ 1 6
Gambero . . . „	15	0	20 0	18	0 „ 25 0

A Manchester		1856		1865	
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Rombo . . . per libbra	1	0	1 6	8	a 1 0
Sogliole . . . „	3	„	4	6	„ 8
Baccalà . . . „	2	„	4	3	„ 4
Sparlings . . . „	—	1	6	1	0 „ 1 6
Haddock . . . „	2	„	4	1	3 „ 4
Passera . . . „	—	„	2	13	„ 2
Brill . . . „	4	„	6	4	„ 5
Razza . . . „	—	„	2	—	„ 3
Hatibut . . . „	4	„	6	—	„ 6

Non vi sono rapporti ufficiali dei prezzi del pesce venduto nel mercato di Londra.

La quantità e valore del pesce forestiere importato nel Regno Britannico nell' anno 1865 fu:—

	Quantità	Valore
	Cwts.	£
Pesce fresco . . .	118,502	130,570
„ fumato o salato . . .	336,958	384,142
	485,560	514,712

Il pesce fresco è importato principalmente dall' Olanda e Norvegia, e pesce salato dall' America Meridionale Inglese, dalla Francia, dall' Olanda, dalla Norvegia, e dall' Islanda.

Gli esporti di pesce inglese nell' istesso anno furono:—

	Quantità	Valore
		£
Aringhe . . . barili	352,250	500,233
Baccalà . . . cwts.	36,433	40,361
Salmone . . . „	4,311	23,388
Saracca . . . hhds.	11,783	38,342
Ostriche . . . bushls.	97,039	63,130
Altre sorte . . . „	—	23,784

Le aringhe sono mandate principalmente alla Germania, all' Italia, e all' Austria; il salmone e l' ostriche alla Francia e al Belgio; e le saracche all' Italia e all' Austria.

Classe LXXI.

LEGUMI E FRUTTI.

La coltivazione di legumi e frutta è stata portata a gran perfezione nel Regno Britannico; e tutte due si consumano in gran quantità da

ogni classe. Non vi sono statistiche della produzione annuale dei giardini. L'area coltivata a patate (eccettuati i giardini) nella Gran Bretagna nell'anno 1866 fu 1,556,000 di acres.

Oltre alla provvista nostrale, importazioni considerabili di frutti e legumi sono fatte annualmente. Nell'anno 1865 gl'importi principali consistevano di —

Mele . . .	bushels	516,000
Uva . . .	„	58,000
Aranci e limoni . . .	„	1,567,000
Pere crude . . .	„	41,000
Altri frutti . . .	„	226,000
Cipolle . . .	„	529,000
Patate . . .	cwts.	807,000

Classe LXXII.

CONDIMENTI E STIMOLANTI; ZUCCHERO E CONFETTURE.

Gli oggetti principali inclusi in questa classe che sono prodotti nel Regno Britannico, sono sale da tavola, aceto, mostarda, salse, frutti conservati e confetture. La fabbrica di sale da tavola è collocata principalmente nelle contee di Cheshire e Worcester, dove si prepara in quantità grandi, benchè una porzione del sale di prima qualità è fabbricata in Londra dalle qualità più ordinarie prodotte nei luoghi nominati. La mostarda e le salse inglesi oltre di fornire alla richiesta nostrale, hanno una riputazione alta in quasi tutte le città forestiere e si consumano anche copiosamente nelle colonie. La consumazione dei generi compresi in questa classe che non sono prodotti in questo paese è molto grande. La tavola seguente mostra le quantità principali d'origine forestiera, calcolate sul consumo dell'anno 1865:—

Pepe . . .	libbre	4,713,000
Cacao . . .	„	3,826,000
Caffè . . .	„	30,511,000
Tè . . .	„	97,834,000
Zucchero crudo . . .	cwts.	9,876,000
„ raffinato . . .	„	724,000

Il pepe è ottenuto principalmente dalle isole olandesi nell' Indie orientali, vià Singapore; il cacao dall' Indie orientali inglesi e dall' America Centrale; il caffè da Ceilan, dall' India e dal Brasile; il zucchero crudo dall' Indie orientali inglesi, da Cuba, e dal Brasile, ed il zucchero raffinato d' Olanda, dalla Francia e dal Belgio. La cannella, i garofani, e le spezie, ecc., sono anche importate, ma non sono consumati in gran quantità.

Il consumo di tè e di zucchero crudo ha aumentato di molto durante gli ultimi dieci anni. Nel 1866 solamente 63,000,000 libbre di tè e 6,813,000 cwts. di zucchero grezzo furono importati per consumo. Confrontando le quantità importate in 1865, si osserva un' aumento di 55 per cento nel tè e 44 sullo zucchero grezzo.

La riduzione recente del diritto sul tè a 6d. la libbra ha contribuito di molto ad aumentare il consumo di quest' oggetto, ed è trovato esser un gran beneficio alle classi più povere della società.

La quantità media del consumo di tè in 1865 fu circa 3½ libbre per ogni persona della popolazione, e di zucchero 39 libbre.

Il consumo del cacao resta quasi sempre allo stesso punto, mentre che quello del caffè ha abbassato un poco.

Il valore del sale, frutti sott' aceto e salse, aceto, e confetture esportati dalla Gran Bretagna nell' anno 1865 montò a:—

	Quantità	Valore
Sale di rocca e bianco . tons	379,050	£ 274,631
Frutti sott' aceto e salse . . . } valore	—	328,381
Aceto . . . gals.	345,123	33,149
Confetture . . libbre	2,041,348	85,465

Classe LXXIII.

BEVANDE FERMENTATE.

Non vi sono registri della produzione di vini inglesi, che soni fatti per il più da frutte forestiere, cioè, aranci, uva passa, zenzero, ecc., ed anche di frutti d' origine nostrale, cioè ribes, uva spina e lamponi. Il sidro è prodotto in gran quantità in Devonshire, Herefordshire, ed altre contee nel sud-ouest dell' Inghilterra, dove in gran parte vien sostituito alla birra come bevaggio per le classi lavoranti. Le qualità superiori di sidro e di perry (bevanda fatta di sugo di pere) sono usati raramente dalle classi superiori. La birra è la bevanda ordinaria della maggior parte della popolazione, ed è prodotta in gran quantità non solamente pel consumo nostrale, ma anche per esportazione. La fabbrica di spiriti è anche molto estensiva. Il 'whiskey' irlandese e Scozzese sono i più rinomati dei spiriti nostrali, benchè si consuma forse meno che il 'gin,' l' acquavite, ed il rum, l' ultimo dei quali spiriti non è fatto in questo paese. La quantità d' orzo macinato usato dai distillatori di spiriti nel Regno Britannico durante i tre anni 1863-65 montò a:—

	Bushels
1863 . . .	4,133,000
1864 . . .	4,986,000
1865 . . .	4,408,000

Il numero delle persone autorizzate a far la birra in ogni divisione del Regno Britannico nell' anno 1865 fu:—

In Inghilterra e la Galles . . .	34,218
Scozia . . .	220
Irlanda . . .	90

Totale . . . 34,528

Il numero di distillatori di spiriti nel medesimo anno fu:—

In Inghilterra e Galles	8
Scotia	116
Irlanda	25
Totale	149

Il numero di distillatori abbassa ogni anno, a motivo del concentramento del negozio nelle mani di distillatori grandi, che usano ogni miglioramento moderno, e che hanno così il potere di emulare con successo i piccoli produttori.

La tavola seguente mostra la quantità di birra e di spiriti inglesi, e anche di vini e spiriti forestieri ritenuti pel consumo nel Regno Britannico nell' anno 1865:—

	Gallons
Birra (stimata)	684,000,000
Spiriti inglesi	21,005,000
Vini forestieri	11,994,000
Spiriti forestieri	6,732,000

In quanto al consumo dei beverage sopra-
scritti durante i dieci anni ultimi, c'è stato un'
aumentazione di birra, un abbassamento in
spiriti inglesi, un' aumentazione in spiriti fo-
restieri, ed una grand' aumentazione nel vino.
Il consumo aumentato di vino può essere in
gran parte attribuito alla riduzione del dazio
d' entrata su quell' articolo che fu fatto colla
negoziiazione del trattato commerciale colla
Francia nel 1860.

Le importazioni di vino per consumo dai

paesi principali di produzione in 1859 e 1865
fu:—

Paesi da dove fu importato		1859	1865
		Gallons	Gallons
Francia .	{ rosso . . .	423,000	1,782,000
	{ bianco . . .	272,000	829,000
Portogallo	{ rosso . . .	1,971,000	2,851,000
	{ bianco . . .	49,000	38,000
Spagna .	{ rosso . . .	47,000	506,000
	{ bianco . . .	2,829,000	4,685,000

Le specie principali di spiriti importati sono
il rum e l' acquavite. I luoghi principali
di provvista sono mostrati nella -tavola se-
guente:—

Importati per Consumo in 1865.

	Gallons
Rhum . { Dall' Indie occidentali . . .	1,499,000
{ inglesi	1,870,000
{ Dalla Guiana inglesi . . .	2,581,000
Acquavite . { " Francia	85,000
{ Altre parte	

La quantità di birra e birra bianca esportata
dal Regno Britannico durante i cinque anni
1861-65 sono date qui sotto:—

	Birra e Birra bianca	Spiriti
	Barili	Gallons
1861	378,000	4,085,000
1862	465,000	3,752,000
1863	491,000	4,076,000
1864	499,000	4,194,000
1865	562,000	1,987,000

Il valore totale del sopradetto consumo nell'
anno 1865, montò a 2,305,000 di lire sterline.

GRUPPO VIII.

(CLASSI LXXIV.-LXXXII.)

BESTIAME E SAGGI DI FABBRICHE PER AGRICOLTURA.

Classe LXXIV.

MASSERIE E LAVORI D' AGRICOLTURA.

La posizione dell' agricoltura in qualunque paese che ha una popolazione tanto grande, resterà sempre un soggetto di somma importanza. Negl' ultimi anni più attenzione è stata data alla coltivazione del terreno, che in passato, e per cura della fatica di molti uomini scientifici la cultura dei poderi è ora esercitata su vasta scala ed a norma dei precetti scientifici. L' introduzione della forza motrice a vapore per eseguire molte operazioni d' aratura, ecc., sul terreno ha apportati miglioramenti considerabili nel metodo di coltivazione in tutto il paese, e questi sono stati aiutati dalle specialità superiori d' arnesi e di macchine agricole fabbricate in Inghilterra. Si nota anche gran avanzamento nelle masserie che sono edificate recentemente, come anche negl' arnesi e nell' apparato che si usa nelle medesime.

La manifattura di meccanismo e degl' arnesi forma un' industria locale assai importante, benchè non vi siano rapporti del numero attuale di persone impiegate in quest' opera. Il meccanismo si fa a Lincoln, Bedford, ed in diverse parti di Suffolk, a Peterborough, Banbury, e Manchester. I fabbricanti inglesi di questa classe di macchine, oltre avere un commercio nostrale imponente, hanno anche un traffico d' esportazione di entità delle loro produzioni; ed è inconstabile che questa classe ha riportato sommo onore esponendo le sue macchine alle esposizioni internazionali.

Il valore degl' arnesi e del meccanismo inglese esportato dal Regno Britannico nell' anno 1865 montò a:—

	£
Arnesi d' agricoltura non enumerati	210,300
Arnesi d' agricoltura fatti interamente di ferro	13,177
Meccanismo d' agricoltura, eccettuato macchine a vapore	282,019

Macchine a vapore per servire all' agricoltura non sono specificate separatamente nei conti del commercio, ma questa ramificazione di mestiere è d' un valore considerabile.

Un rapporto sull' area in coltivazione coi raccolti principali nel Regno Britannico nell' anno 1866 si vedrà nella Classe 67, ed il numero di bestiame nelle Classi 75 a 77.

Classe LXXV.

CAVALLI, ASINI E MULI.

Non vi sono rapporti sul numero dei cavalli nel Regno Britannico, eccettuato quelli dei cavalli e muli soggetti alla tassa, o liberi da questa. Qui segue il numero di quelli soggetti o liberi di tassa in ogni divisione della Gran Bretagna nell' anno 1864:—

	Cavalli e Muli No.
In Inghilterra e Galles, tacciati	537,639
„ „ „ immuni	330,584
In Scozia, tacciati	55,428
„ „ „ immuni	147,444
Totale per la Gran Bretagna	1,071,095
Secondo il rapporto sull' Irlanda nel 1866	535,000
Totale per il Regno Britannico	1,606,095

Non vi sono rapporti del numero di asini nel regno.

La tavola seguente dà il numero ed il valore dei cavalli importati nella Gran Bretagna ed esportati durante i cinqu' anni 1861-65:—

Anni	Importati		Esportati (Britanniche)	
	Numero	Valore	Numero	Valore
		£		£
1861	1,595	37,693	2,954	237,813
1862	1,978	40,581	4,288	267,956
1863	1,441	39,264	5,204	269,525
1864	1,357	34,319	4,664	230,931
1865	1,332	39,658	4,400	185,367

Solamente 4 asini, del valore di 20£, furono importati nell' anno 1865; e 130 asini e muli del valore di 1,291£. furono esportati nel medesimo anno.

Classe LXXVI.**TORI, BUFALI, ECC.**

Il seguente è il rapporto del bestiame in ogni divisione del Regno Britannico, come fu accertato nell'anno 1866:—

Divisione	Vacche	Altro Bestiame	Totale
Inghilterra . . .	1,290,529	2,016,505	3,397,034
Galles . . .	222,546	318,855	541,401
Scozia . . .	370,447	566,954	937,401
Irlanda . . .	1,481,446	2,261,486	3,742,932
Isola di Man . . .	7,755	10,932	18,687
Isole della Manica:			
Jersey . . .	5,815	6,222	12,037
Guernsey . . .	3,030	3,946	6,976
Totale . . .	3,381,568	5,184,900	8,566,468

Oltre il numero del bestiame allevato nel regno per uso di cibo, un gran numero è importato ogn'anno da paesi forestieri, e principalmente dagli stati settentrionali dell'Europa. Un' aumento considerabile delle importazioni sarà osservato nel 1864 e 1865, che fu cagionato in gran parte dalla peste che colpì il bestiame inglese. Il numero ed il valore di bestiame d'ogni specie importato nella Gran Bretagna durante i cinqu'anni 1861-65 sono notati qui sotto:—

	No.	Valore £
1861 . . .	107,096	1,558,065
1862 . . .	97,887	1,301,602
1863 . . .	150,898	1,931,814
1864 . . .	231,733	3,208,851
1865 . . .	283,271	4,401,482

Gli esporti di bestiame sono assai insignificanti.

Il numero totale di bestiame stimato d'essere stato assalito dalla peste nella Gran Bretagna dal principio dell'epidemia in poi al 10 di novembre 1866, montò a 253,730. Su questa cifra, 85,018 furono ammazzati, 124,305 morirono, 33,413 guarirono, e di 10,994 non si hanno ragguagli; 52,415 bestie in buona salute furono ammazzate per impedire l'estensione della peste. Il per cento della stimata quantità solita del bestiame colpito dalla peste al 10 di novembre 1866 fu 5.141.

Classe LXXVII.**PECORE E CAPRE.**

Il numero totale delle pecore in ogni divisione della Gran Bretagna nell'anno 1866 fu:—

	No.
In Inghilterra . . .	15,124,000
Galles . . .	1,668,000
Scozia . . .	5,255,000
Irlanda . . .	4,270,000
Isola di Man . . .	55,954

Isole della Manica:

Jersey . . .	517
Guernsey . . .	1,214

Totale . . . 26,374,685

In conseguenza, però, della stagione dell'anno nel quale il rapporto sull'Inghilterra fu redatto, probabilmente ci manca una quantità grande d'agnelli. Non vi sono rapporti del numero delle capre nella Gran Bretagna, esse però non sono tenute in gran quantità.

Una importazione considerabile di pecore e d'agnelli è fatta annualmente nel regno quasi esclusivamente dall'Europa, e principalmente da Amburgo, Olanda, e Belgio. L'importazione durante i cinqu'anni 1861-65 è la seguente:—

	No.	Valore £
1861 . . .	312,923	616,020
1862 . . .	299,472	569,315
1863 . . .	430,788	669,573
1864 . . .	496,243	873,905
1865 . . .	914,170	1,787,866

Il sensibile aumento verificatosi nel 1865 è attribuito alla mancanza di carne sul mercato nostrale cagionata dalla peste del bestiame.

Il numero di pecore esportate è molto piccolo; nell'anno 1865 solamente 2,477 pecore, del valore di 22,134£, furono esportate dal regno.

Classe LXXVIII.**PORCI E CONIGLI.**

Il rapporto del numero dei porci nella Gran Bretagna non è completo, poichè i porci sono tenuti dai contadini, e quelli tenuti nelle città non sono inclusi nel rapporto. Questi esclusi, il numero totale nella Gran Bretagna nel 1866 è detto d'essere 3,800,000. I conigli abbondano in molte parti del paese, ma nessun rapporto esiste del numero supposto.

Le importazioni di porci durante i cinqu'anni 1861-65 furono:—

	No.	Valore £
1861 . . .	30,308	37,884
1862 . . .	18,162	17,319
1863 . . .	27,137	53,685
1864 . . .	85,362	192,566
1865 . . .	132,943	359,065

Un numero grandissimo di conigli sono importati da altri paesi, ma i rapporti della dogana non danno questo numero separatamente. Pochissimi sono i porci esportati; nel 1865 salirono a 148, del valore di 559£.

Classe LXXIX.**POLLAME.**

Non esistono statistiche sul numero del pollame del paese, ma dev'essere sufficiente di

provvedere per i bisogni della popolazione, perchè le importazioni sono comparativamente di poco valore. Le ova non sono incluse in questa classe, ma saranno trovate nella Classe 69.

Il valore del pollame, compreso la caccia ed i conigli importati nella Gran Bretagna durante i cinqu' anni 1861-65 fu:—

	£
1861	74,000
1862	86,000
1863	109,000
1864	131,000
1865	148,000

Classe LXXX.

CANI DA CACCIA E CANI DA GUARDIA.

Non abbiamo statistiche sul numero dei cani esistenti nella Gran Bretagna; perchè, quantunque essi siano soggetti ad una tassa, i mezzi evasivi sono tanti e tali da rendere impossibile un rapporto ufficiale esatto e preciso, dimostrante la quantità di questi animali tenuti nel paese.

Classe LXXXI.

INSETTI UTILI.

I soli insetti allevati nel Regno Britannico che fanno parte di questa classe sono le api, e

son mantenute in molti posti del regno. Varj miglioramenti nella fattura delle arnie sono stati introdotti nei dieci ultimi anni, ma ordinariamente l' antica arnia di paglia è la forma comune di arnia adoperata presso noi per la conservazione dell api. La quantità di miele e di cera importata nel Regno Britannico nell' anno 1865 fu:—

	Cwts.
Miele	4,519
Cera	10,678

Non esistono rapporti della somma totale della produzione nostrale di questi generi.

Classe LXXXII.

PESCE, CROSTACEI, E MOLLUSCA.

L' apparato il più importante compreso nei limiti di questa classe è quello per allevare il pesce per mezzi artificiali, il quale è stato adoperato con buona riuscita in diverse parti del regno. L' apparato però è adesso così ben conosciuto che ogni allusione su questo proposito sarebbe inutile. Una relazione sulla produzione delle pescherie britanniche si trova sotto la Classe 70

GRUPPO IX.

(CLASSI LXXXIII.-LXXXVIII.)

ALBERI, PIANTE, LEGUMI, E SAGGI DI FABBRICHE PER
ORTICOLTURA.

Classe LXXXIII.

STUFE PER LE PIANTE ED APPARECCHI
D'ORTICOLTURA.

Molti miglioramenti sono stati fatti durante i pochi anni passati nella costruzione di stufe e di serre, specialmente nel disegno di queste ultime. Riguardo ai vari apparecchi, l'invenzione e l'introduzione della macchina per falciare l'erba dei prati è una delle più importanti; esse taglia l'erba ad ogni tempo della giornata o dell'anno, mentre che la falce semplice non può essere usata che quando la rugiada è sull'erba. Molti altri miglioramenti negli strumenti ed apparecchi per giardinieri sono stati fatti durante i dieci anni passati, a causa dell'attenzione, sempre crescente, che fu data alla coltivazione e l'abbellimento dei giardini, come alle serre ed altri edifici per la coltura artificiale delle piante, i quali sono ora aggiunti per il più alle case moderne di una certa grandezza.

Classe LXXXIV.

FIORI E PIANTE DI ORNAMENTO.

Aggiunto al gusto naturale della gente per la coltivazione dei fiori, le società numerose d'orticoltura e di botanica, col mezzo dello stabilimento di giardini e dalle frequenti esposizioni pubbliche di fiori e piante, hanno concorso potentemente a promuovere questa particolarità nazionale. I giardini di fiori che appartengono all'alto e mezzo ceto sono generalmente riconosciuti di non essere superati da alcun'altra nazione nel mondo, e dal rapporto intimo che ha l'Inghilterra con ogni parte del mondo, i suoi giardini sono stati arricchiti dalle contribuzioni di ogni clima. Fra le introduzioni le più recenti, molti bei fiori e piante del Giappone, rare insino ad ora, possono essere notate. L'arte di ornare i giardini è stata negli anni recenti sviluppata immensamente in Inghilterra e ciò lo si deve, in gran misura, alla ricchezza aumentata del mezzo ceto.

Classe LXXXV.

LEGUMI.

Legumi di ogni specie sono coltivati estesivamente nella Gran Bretagna, ma, all'eccezione delle patate non vi sono rapporti dell'estensione della loro coltivazione.

L'area del terreno piantato con patate (meno i giardini) nell'anno 1866 era:—

	Jugeri
In Inghilterra e Gales	356,000
Scozia	143,000
Irlanda	1,051,000
Isola di Man	4,000
Isole della Manica	2,000
	<hr/> 1,556,000

Patate e cipolle sono anche importate in grande quantità, principalmente dalla Francia e dall'Olanda, dal Belgio e dal Portogallo. Nell'anno 1865, 807,000 cwts. di patate, del valore di 162,000*l.*, e 529,000 staj di cipolle, del valore di 121,000*l.*, furono importate nella Gran Bretagna.

Classe LXXXVI.

ALBERI POMIFERI.

Alberi pomiferi di diverse specie, specialmente alberi di mele, pere, e ciliege, sono coltivati estesivamente in molte parti del regno. In Devonshire, Somerset, e Herefordshire, molte mele sono coltivate per la fabbrica di sidro. Le ciliege della provincia di Kent sono assai celebri per le loro buone qualità. Molte altre frutta sono coltivate in giardini particolari, e in giardini chiamati 'giardini da mercato'; la produzione annuale è molto grande, benché non vi sono mezzi di stimare il suo valore. Grande attenzione è data alla propagazione di alberi pomiferi, e ogni anno si vede l'introduzione di molte specie di frutta assai migliorate.

Oltre la provvisione nostrale, gran quantità di frutta ordinarie sono annualmente esportate nel paese, fra le principali delle quali erano nel 1865:—

	Staj
Mele (crude) . . .	516,000
Pere . . .	41,000
Noci . . .	143,000
Noccioli . . .	251,000
Castagne . . .	72,000
Uva . . .	58,000

Quest' ultime non sono coltivate come una raccolta all' aperto, ma sono grandemente prodotte in serre.

Uva passa secca, mandorle dolci, datteri e fichi, non sono prodotti nel paese, ma sono importati. Nel 1865 la quantità di cotesti frutti montò a:—

	Cwts.
Uva passa . . .	368,000
Mandorle dolci . . .	32,000
Fichi sechi . . .	78,000
Datteri . . .	16,000

Classe LXXXVII.

SEMI E PIANTONI DI ALBERI DA SELVA.

Benchè la coltivazione delle selve nella Gran Bretagna è comparativamente limitata in estensione, essendo ristretta ai dominii regi e ad alcuni proprietari di ampj beni, la coltivazione degli alberi per boschi e piantagioni è molto curata. I parchi che circondano le dimore campestri dei proprietarj del fondo sono guar-
niti da alberi di tutte le specie, ma cotesti sono

coltivati principalmente per puro abbellimento. Vi sono pochi paesi, forse, nei quali un aggruppamento così vario di fogliame può essere visto, come nelle selve e piantagioni di molte contee dell' Inghilterra.

Classe LXXXVIII.

PIANTE DI SERRE.

È impossibile nello spazio concesso a queste osservazioni d' indicare i metodi differenti di coltivare le piante di serre nella Gran Bretagna, ma speriamo che alcuni dei modi più recenti saranno presentati all'Esposizione. Come calorifero, il cammino di mattone è sempre in uso esteso, ma l'acqua calda e l'apparato di gas sono anche molti adoperati. Grandi miglioramenti nella costruzione di serre e stufe sono stati fatti durante gli ultimi anni, i più importanti dei quali furono inventati dal fu Sir J. Paxton, e la riduzione nel prezzo del vetro ha anche dato ai disegnatori di costruzioni ornamentali un' estensione assai più vasta nella struttura di questi edifizj. La coltivazione delle piante di serre è grandemente aiutata dalle esposizioni che sono tenute dalla Società d'Orticoltura, ed altre società nella Gran Bretagna, dalle quali premj sono aggiudicati per i migliori saggi di fiori già conosciuti, come per l'introduzione fortunata di qualunque novità di piante cresciute al calore artificiale.

GRUPPO X.

(CLASSI LXXXIX.-XCIII.)

ARTICOLI ESPOSTI SPECIALMENTE PER MIGLIORAR LO STATO FISICO E MORALE DEI POPOLI.

Classe LXXXIX.

APPARATI E METODI PER SERVIRE ALL' ISTRUZIONE DEI FANCIULLI.

BENCHÈ non concorrano espositori all' attuale Esposizione, vi sono numerose società nella Gran Bretagna mantenute da sottoscrizioni private, lo scopo delle quali è di facilitare alle scuole elementari, oltrechè al pubblico in generale, i mezzi d' ottenere stimole opere educative a prezzo ristrettissimo. In quanto alla costruzione delle scuole, il Dipartimento di Scienza ed Arti mantiene un' esposizione perfetta dei più stimati modelli per costruire scuole pubbliche, ed anche la mobiglia ed apparati per esse. Grand' attenzione è stata fatta in Inghilterra alla educazione dei ciechi, dove non solamente sono ammaestrati nella lettura, ma anche sono istruiti in musica e varj lavori. Vi sono molte istituzioni in Londra ed altre città per il ricevimento di questa classe della popolazione, che sono capaci di mantenere delle centinaia di persone. È stabilito che nell' istituzione ben conosciuta di Southwark per i ciechi poveri, da dodici a quindici giovani lasciano la scuola ogn' anno bene istruiti in cose religiose e secolari, ed anche capaci di mantenersi come calzolari, tessitori, e fabbricanti di spazzole, pannieri, e stoje, ed alcuni che possono suonare l'organo ed altri strumenti.

Il numero totale di persone cieche nella Gran Bretagna, secondo il censo del 1861, era:—

	Persone	
In Inghilterra e Galles . . .	19,352	ossia 1 in ogni 1,037 persone
Scozia . . .	2,820	„ „ 1,086 „
Irlanda . . .	6,879	„ „ 843 „
Nelle isole (in mari inglesi) . . .	197	„ „ 728 „
	29,248	— 994

L' esposizione di libri scolastici e di carte geografiche, ecc., basterà da sè per mostrare quanto sia grande l'interesse spiegato nel miglioramento della condizione morale e sociale del popolo.

Classe XC.

BIBLIOTECHE ED APPARATI ADOPERATI PER LA ISTRUZIONE DI ADULTI—ALLE CASE LORO, NEI LAVORATORJ, IN SCUOLE E COLLEGI.

Lo stabilimento delle biblioteche e stanze di lettura per l'uso delle classi operaje ha esistito per molti anni in congiungimento colle istituzioni meccaniche e letterarie che si trovano in quasi ogni borgo e villaggio del regno. Lo stabilimento delle biblioteche pubbliche nei borghi grandi per l' uso di tutte le classi, è d' una data più recente. L' istruzione agli adulti appartenenti alle classi più povere è data nei collegj destinati ai lavoratori, alle classi di sera alle istituzioni meccaniche ed altri. Gli sforzi dei promotori di quelle istituzioni sono stati appoggiati abilmente da un gran numero di editori nostrali che hanno avuto a cuore la vera prosperità del operajo. La pubblicazione di libri scolastici, e di quelli adoperati per istruirsi da sè è ora così estesa, che la difficoltà non è di ottenere, ma piuttosto di scegliere dall' immensa varietà offerta. La circolazione grande dei fogli periodici a buon mercato, delle riproduzioni di opere classiche, e specialmente dei giornali a poco prezzo, debbono essere considerati come una prova del tipo migliorato d' educazione fra le classi tutte della società.

Classe XCI.

MOBILIA, VESTIARIO, E CIBO NOTEVOLI PER LE LORO QUALITÀ UTILI E PER IL BUON MERCATO.

In un paese come la Gran Bretagna, dove la porzione principale delle manifatture è destinata all' uso del basso ceto, non è facile di specificare quali oggetti cadono nel limite di questa classe. A causa della loro grande consumazione e dell' impiego di meccanismo nella manifattura, la maggior parte degli oggetti

mobiglia, vestiario e cibo son venduti a prezzo bastantemente basso per esser alla portata delli classi laboriose. Il prezzo degli oggetti principali usati dalle classi povere della popolazione è anche tenuto basso, dalla vasta concorrenza che esiste per provvederli, perchè per il genere del commercio (che si conduce per il più a danari contanti) si ricava gran guadagno, benchè gli oggetti si vendano a profitto piccolissimo.

Lo stabilimento e l' aumento rapido delle società co-operanti e provvidenti, che forniscono ai loro membri, principalmente delle classi operaje, diversi oggetti di vestiario e cibo al primo costo, offrono incontestabilmente un vantaggio sulle compre fatte alla bottega dell' associazione, e meritano quindi particolare menzione.

Classe XCII.

SAGGI DI VESTIARIO PORTATO DAI POPOLI DELLE DIVERSE PROVINCIE BRITANNICHE.

Alcune osservazioni in quanto alle distinzioni di vestiario portato dalle differenti classi nel Regno della Gran Bretagna si troveranno nella Classe 35.

Classe XCIII.

ESEMPLJ D' ABITAZIONI A BUON MERCATO COMBINATI COLLE CONDIZIONI NECESSARIE PER LA SALUTE E COMODITÀ.

Il soggetto dell' am miglioramento delle abitazioni delle classi operaje ha occupato per molto tempo l' attenzione pubblica in Inghil-

terra. Quelli che assistettero all' Esposizione di Londra nell' anno 1851 possono senza dubbio rammentarsi delle case d' alloggio fabbricate sotto l'ordine del defunto Principe Consorte in congiungimento coll' Esposizione, e che attiravano una attenzione così grande. D'allora in poi gli ottimi mezzi per migliorare le abitazioni delle classi operaje sono stati considerati vivamente dalla Società delle Arti, come anche da altre società e individui particolari, e molte grandi case per l' uso delle classi operaje furono fabbricate in diverse parti della città; ma benchè molto si sia operato, la maggior parte delle classi povere sono condannate ad abitare in case miserabili. L'estensione delle strade ferrate ed i miglioramenti pubblici sono la cagione che la richiesta di case all' uso degli operaj nella metropoli cresce d'anno in anno. Qualche alloggio è stato accordato dal trasporto dei lavoranti da uno o due delle compagnie delle strade ferrate a prezzo basso quà e là nei sobborghi, e se questo favore fosse concesso da tutte le compagnie delle strade ferrate di questa città, un gran vantaggio ne risulterebbe. Si deve, però, rammentarsi che l' ora mattutina alla quale gli operaj principiano il lavoro impedisce che le loro abitazioni siano ad una distanza grande dalla loro occupazione. La mancanza d' alloggio convenevole per le classi operaje non è sfortunatamente limitata a questa metropoli, ma è provata in quasi tutte le città grandi del regno come nei distretti agricoli, ed infatti ha ora preso delle proporzioni così vaste che non si può mitigarla altrimenti che per imprese effettuate con mezzi straordinari. Si spera che gli oggetti esposti in questa classe saranno i mezzi da svegliare una sollecitudine anche più viva per questo importante lavoro.

PARIS UNIVERSAL EXHIBITION OF 1867.

PART II.

CATALOGUE

OF THE WORKS EXHIBITED IN

THE BRITISH SECTION

OF THE EXHIBITION.

IN FOUR LANGUAGES:

ENGLISH—FRENCH—GERMAN—ITALIAN.

WITH

AN APPENDIX

IN WHICH MANY OF

THE OBJECTS EXHIBITED ARE MORE FULLY DESCRIBED.



LONDON: PRINTED FOR
HER BRITANNIC MAJESTY'S COMMISSIONERS, AND SOLD BY
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MDCCCLXVIII.

PARC



A	French Division.	J	Spain.	S	China, Japan, and South
B	Holland.	K	Portugal.		Asia.
C	Belgium.	L	Greece.	T	Africa and Oceania.
D	Prussia.	M	Danubian Principalities.	U	Mexico and Central America.
E	States of the Zollverein.	N	Rome.		
F	Austria.	O	Italy.	V	Brazil.
G	Switzerland.	P	Russia.	X	United States of America.
H	Denmark.	Q	Turkey.	Z	Great Britain and Dependencies.
I	Sweden and Norway.	R	Persia and Central Asia.		

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HISTORY OF LABOUR BEFORE 1800:

BEING A

‘LOAN COLLECTION OF WORKS OF ART.’

Epochs of Art in the United Kingdom, selected in accordance with those fixed by the French Commission.

- | | | |
|------------|---------------------------------------|--|
| 1st Epoch. | The British Isles (Albion and Ierne). | Anterior to the use of metals. |
| | Stone age. | |
| 2nd | „ | Anterior to the Roman Invasion of Britain. |
| 3rd | „ | During the dominion of the Romans in Britain. |
| 4th | „ | From the departure of the Romans (409) to the reign of Egbert (828). |
| 5th | „ | Down to the Norman Conquest (1066). |
| 6th | „ | Till the end of the Plantagenet dynasty (1485). |
| 7th | „ | The Tudor dynasty to accession of James I. (1603). |
| 8th | „ | The Stuarts down to George I. (1714). |
| 9th | „ | The House of Hanover down to accession of George III. (1760). |
| 10th | „ | The reign of George III. down to 1800. |

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REPORT.

The Select Committee appointed at a General Meeting of the Associate Commissioners for the History of Labour, held at the South Kensington Museum on February 1, 1867, having completed the task entrusted to them by the Lord President of the Council, of soliciting contributions to the Exhibition in Paris, and selecting such objects as, in their opinion, would best illustrate the progress of industry in the British dominions, beg to present the following report of their proceedings.

In doing so, they are anxious to guard against an impression being made either in England or abroad, that, in giving their sanction to the objects actually selected for exhibition, they conceive the collection to be complete. They regret to be obliged to state that the success which has attended their endeavours is not such as they had hoped, and that the collection they have made cannot be looked upon as conveying an adequate representation of the degree of excellence to which the several branches of Art manufacture have attained in this country.

The result of the efforts of the Committee would have been more satisfactory but for the reluctance of a large number of those to whom they applied, to incur the risk of possible injury to their property.

To this cause may further be added the

scantiness of the space allotted to the British Commission for this department of the Exhibition. The Committee have reason to fear that want of space will compel H. M.'s Commissioners to decline to send some of the most important objects.

The apprehension above alluded to is not, in the opinion of the Committee, justified, inasmuch as the precautions taken by the English and French Governments, through the exertions of the late and present Lord President of the Council, together with the satisfactory terms on which ample insurances have been effected, afford as full a guarantee as can be obtained.

The readiness with which Her Majesty graciously consented to head the list of contributors with so magnificent a selection of Ancient Royal Plate, and the confidence thereby manifested by Her Majesty, has had a material effect on the success and completeness of this branch of the History of Labour.

With these observations it only remains for the Committee to submit to Her Majesty's Commissioners the following list of objects of British Workmanship, together with the names of those who have kindly contributed their valuable works of Art.

[Signed]

CADOGAN.

South Kensington Museum, April 8, 1867.

COLLECTION OF EARLY ANTIQUITIES FROM THE BRITISH MUSEUM.

CORRESPONDING IN DATE TO THE FIRST, SECOND, AND THIRD EPOCHS OF ART, AS FIXED BY THE FRENCH COMMISSION.

(They have all been discovered in England and Wales.)

CASE A.

PANEL I.

DRIFT PERIOD (*Époque quaternaire*).

[The flint implements about to be described are found in beds of gravel of a certain kind, termed by geologists the drift; in which they are mingled with the bones of mammoth (*Elephas primigenius*) and other extinct animals. They are peculiar in form, and have been made by chipping; they are never ground or polished.]

1. FLINT IMPLEMENT, with sharp chipped edges. Discovered about the year 1797, in the drift at Hoxne, in Suffolk.
2. FLINT IMPLEMENT, imperfect at the point. Found near Thetford, in Norfolk.
3. FLINT IMPLEMENT, found near Thetford, in Norfolk.

4. FLINT IMPLEMENT. Found near Thetford. It shows part of the external surface of the flint.
5. FLINT IMPLEMENT, from Shrub Hill, near Thetford.
6. FLINT IMPLEMENT, from Shrub Hill, near Thetford; showing part of the outside.
7. FLINT IMPLEMENT, from Icklingham, in Suffolk, 1863.
8. FLINT IMPLEMENT, from Milford Hill, near Salisbury.
9. IMPLEMENT, of deep amber-coloured flint. Found at Herne Bay, in Kent.
10. FLINT IMPLEMENT, from Herne Bay, in Kent; showing much of the outer coating of the pebble from which it has been made.

STONE PERIOD (*Âge de la Pierre*).

11. HAMMER, made out of stag's horn. Found in the bed of the Thames, near Kew, in Surrey.
12. AXE-HEAD, made out of stag's horn, one end rounded, the other bevelled off; the shaft hole is quadrangular. Found in the Thames, near Kew.
13. FLINT CORE, from which flakes have been struck. Found at Whittington, co. Gloucester. With flakes and scrapers.
14. FLINT SCRAPER, very similar in form to those from the caves of France. Found near Leeds Castle, Kent.
15. SET OF SIX FLINT IMPLEMENTS, made out of flakes; two of them are scrapers. Found at Possingworth, near Waldron, in Sussex.
16. SET OF FIFTEEN FLINT IMPLEMENTS, consisting of flakes, scrapers, a leaf-shaped arrow head, a barbed arrow head, and two peculiar triangular implements. All found on the Wolds of Yorkshire.
17. LONG FLAKE, delicately chipped at the side. Found in Cornwall.
18. FLINT DAGGER, carefully chipped all over. Found in the Thames. This is a rare specimen.
19. THREE FLINT ARROWHEADS. Found in a barrow on Lambourne Down, Berkshire.
20. FLINT CELT chipped, but not polished, having been probably considered too thin to undergo that process. Found in a barrow in Hampshire with No. 28.
21. FLINT CELT, chipped, preparatory to being polished; the edges have been smoothed. This type is characteristic of the Eastern Counties. Found at Great Bealings, in Suffolk.
22. FLINT IMPLEMENT, rudely chipped, and possibly a block, prepared for striking off long flakes. Found in the River Thames.
23. CELT, of sulphur-coloured flint. Found in the Thames. It is peculiar for the sharpened end being much rounded.
24. CELT, of dark-brown flint. Found in the Thames, the mud of which has prevented the surface from becoming altered.
25. CELT, of grey-flint. Found in the Thames. It resembles in form No. 21; but is polished all over.
26. CELT, of brown flint. Found in the Thames. Of a narrow type.
27. CELT, of an agate flint, and finely marked. Found in England.
28. CELT of flint, whitened by age, and highly-polished; it is peculiar for the diagonal form of the blade. Found in a barrow in Hampshire.

29. CELT of a rusty-brown flint, recently injured at the sharpened end. It was found in Kensington, near London, in 1864.
30. CELT of grey and unaltered flint; thin and quadrangular in shape, flat on one side and slightly convex on the other. Found in the Thames.
31. CELT of grey trap, apparently diorite, very rounded in form. Found in the Thames.
32. SMALL CELT, of pale grey stone, a kind of diorite. Found in a barrow at Alfriston, Sussex.
- 32A. FLINT KNIFE OR ARROW HEAD, the upper part bound round with moss to form a handle. Found in Ireland. (In Case B.)
Lord Talbot de Malahide.

PANEL II.

BRONZE PERIOD (*Âge du Bronze*).

[Stone axeheads, pierced with shaft holes, are occasionally found in barrows accompanied by bronze daggers; they are usually, therefore, referred to the bronze period.]

33. STONE AXEHEAD, made of granite, polished; it has a circular shaft-hole, and is sharp at one end and blunt at the other. Found at Stanwick, Yorkshire.
34. STONE AXEHEAD, of dark syenite, with oval shaft-hole, rounded at one end, sharpened at the other. Found in the Thames.
35. STONE AXEHEAD, thick and rounded at one end, moderately sharp at the other; round shaft-hole. Found in the Thames, London.
36. HAMMER-HEAD of granite, blunt at both ends, with a large circular shaft-hole. Found in the Thames, London.
37. LUMP OF PURE COPPER, as smelted. Found at Welwyn, co. Hertford, with bronze celts imperfectly made and unfinished.
38. BRONZE SOCKETED CELT, not trimmed off. Found at Welwyn, with No. 37.
39. LUMP OF COPPER. Found at High Rooting, in Essex, with similar lumps, and a number of bronze celts.
40. BRONZE SOCKETED CELT. Found at High Rooting, with the copper, No. 39.
41. CAST, from a four-sided stone mould, for casting spearheads and celts; each side has a different mould. The original is made of a kind of hone stone, and was found in the Island of Anglesea.
42. BRONZE MOULD, for casting solid celts with loops (palstaves). It is made in two pieces, and on the outside are ornaments like 'cord, which have the appearance of having been cast from actual cord. Found in South Wiltshire.
43. BRONZE MOULD, for casting socketed celts,

with one of the celts found in it. It is in two pieces, and was discovered in Yorkshire.

44. BRONZE LEAF-SHAPED SWORD, of very unusual size, being the longest specimen in the British Museum (31 in.). It has been broken across and mended. It has eleven holes for the rivets of the handle, five of which remain. Found at Battle, Sussex.
45. CELT, solid bronze, of the simplest form. This type is rare in England, though very common in Ireland. Found at Exning, Suffolk.
46. CELT, solid bronze, of a similar form to the last, but more recurved at the edges, and much ornamented with engraved lines. Found in the neighbourhood of York.
47. CELT, bronze, with broad blade and slight flanges at the sides for the handle. Found in the Isle of Wight.
48. CELT, bronze, of the same form as No. 47, but with a slight prominence across the blade to assist in fixing the handle. Found at Mildenhall, Suffolk.
49. CELT, bronze, with flanges at the sides, and a stop-ridge across the stem. The blade has ribs in relief. Found at Goudhurst, Kent.
50. CELT, bronze, of a similar form to the last, but with a loop at the side. Found in Cambridgeshire?
51. CELT, bronze, unusually small, with loop and stop ridge. Found at Stibbard, in Norfolk, with others of the same type, all unfinished.
52. CELT, bronze socketed, hexagonal in section, with loop at the side. Found in Cambridgeshire.
53. CELT, bronze socketed, square in section, with loop, and ornamented with lines and circles in relief. Found in the Thames?
54. HAMMER, bronze, square, with socket. Found at Thorndon, in Suffolk, with Nos. 55-58. An object of great rarity.
55. GOUGE, bronze, with socket. Found at Thorndon, in Suffolk.
56. KNIFE, bronze, with socket, and two rivet holes. It appears that such knives had short handles, and were fixed to them with two wooden rivets. Thorndon, Suffolk.
57. AWL, bronze. Found at Thorndon, Suffolk. An object of excessive rarity.
58. SPEARHEAD, bronze, with leaf-shaped blade, and two rivet holes; the socket is ornamented with engraved bands. Found at Thorndon in Suffolk.
59. DAGGER BLADE, bronze, very broad and flat, with five large rivets, near which may be distinguished the marks of the handle. Found in a barrow at Homington, Wilts.

60. SPEARHEAD, bronze, of peculiar form; it has a fluted blade, and a long tang, over which was passed a ferul to keep the blade in the wood. Found in the River Lea, near Stratford-le-Bow, Essex.

61. TORQUES, bronze. Found in Dorsetshire.

6. ARMLET, bronze, solid, and of a lozenge section. Found in Dorsetshire, with No. 61.

63. ARMLET, bronze, heavy and solid, cylindrical in section, and ornamented with engraved lines. Found at Liss, in Hampshire.

PANEL III.

[A continuation of the illustrations of the bronze period; but all the objects have been discovered in the River Thames, at or near London.]

64. SHIELD, circular bronze, with convex boss, and concentric rings. It has a handle, and shows marks of a spear and sword cut; the small loops which are usually found in these shields have been anciently cut away. Found in the Thames, London.

65. SWORD, bronze, of a broad type, which seems peculiar to the Thames Valley; in the handle plate is a long slit, and six rivet holes. Thames.

66. SWORD, bronze, of peculiar and highly finished make; the handle plate is without ridges, and retains five out of the six rivets for the handle. Thames.

67. END OF SWORD SHEATH, bronze, very beautifully and evenly cast; about half-way down is a rivet hole, to fasten in the wooden lining, of which a portion remains. Thames.

68. DAGGER, or SWORD, bronze, unusually slender; it has had two large rivets for the handle, one of which remains.

69. DAGGER, bronze; it has two rivet holes. Thames.

70. DAGGER, bronze, of fine work, with two large rivets; the traces of the handle are very distinct. Thames.

71. KNIFE OR DAGGER BLADE, bronze, with two rivets. Thames.

72. KNIFE, bronze, with a single rivet. Thames.

73. SPEAR-HEAD, bronze, of unusual size and fine form. Found in the Thames at Coway Stakes, the spot at which Cæsar is supposed to have crossed the river.

74. SPEAR-HEAD, bronze, leaf-shaped, in fine preservation, with long socket and rivet holes. Thames.

75. SPEAR-HEAD, bronze, with long socket, two small openings in the blade, and no rivet holes. Thames.

76. SPEAR-HEAD, bronze, of peculiar form, with

loops attached to the lower end of the blade; no rivet holes.

77. SPEAR-HEAD, bronze, with two loops on the socket, and with ornamental ribs on the blade. Thames.
78. SPEAR-HEAD, bronze, very rare form, probably used in hunting. The blade is barbed, and through the rivet holes is passed a long and projecting rivet of bronze. Bronze rivets have been found in England in spears of this kind, only the rivets in the other kinds having been made of hard wood. Found in the Plais-tow Marshes, on the banks of the Thames.
79. CELT, bronze (palstave), very carefully made and hammered at the sides. It was found with a bronze sword, spear-head, and pin, in the Thames, near the mouth of the Wandle.
80. CELT, bronze socketed, with loop. Thames.
81. CELT, or CHISEL, diminutive bronze, of rare form, with a tang to enter the handle. Thames.

PANEL IV.

LATE KELTIC (*Première Âge du Fer*).

[The specimens in this class show great beauty of workmanship and great singularity in their ornaments. They are chiefly horse-trappings, many of which have been enamelled. The enamelled decoration illustrates an oft-quoted passage in Philostratus, who speaks (Icones, I. xxviii.) of the barbarians who live in the ocean (τοὺς ἐν Ὠκεανῷ βαρβάρους), having a process for fixing colours to brass horse-trappings. Such horse-trappings have not hitherto been found out of the British Isles.]

82. HORSE'S-BIT, bronze, with a few engraved lines. Found at Polden Hill, Somerset.
83. HORSE'S-BIT, bronze, with remains of enamelled decorations, principally red. Polden Hill.
84. RING, from horse-harness, bronze. With engraved patterns and circular ornaments of enamel. Polden Hill.
85. RING, bronze, similar to No. 84, but with triangular ornaments of enamel. Polden Hill.
86. RINGS (pair of), bronze, less richly ornamented, but of the same kind as Nos. 82 to 85. Polden Hill.
87. RING FOR HORSE FURNITURE, bronze; the lower part expands, and is ornamented with a scroll of elegant design, on an opaque red enamelled ground. Found at Westhall, in Suffolk.
88. FLAT PLATE of bronze, from horse furniture, of a singular form, and enamelled with scrolls of a Keltic pattern in red, white, blue, and green enamel. Found,

with another similar one, at Westhall, Suffolk.

89. TWO KNOBS, bronze, the terminations of iron pins, probably from a chariot. Found at Westhall, Suffolk. Height $1\frac{1}{2}$ in.
90. ORNAMENT FROM HORSE-TRAPPINGS, bronze, once enamelled. Found, with a great number of other specimens, in the camp at Stanwick, in Yorkshire.
91. RING FROM HORSE-HARNESS, bronze, with depressions for enamel. Stanwick, Yorkshire.
92. PORTION OF A HORSE-BIT, bronze. From Stanwick, Yorkshire.
93. SWORD, iron, in a bronze sheath, peculiarly ornamented; the handle is lost. Found at Stanwick, in Yorkshire. Several swords of this kind have been found in England.

ROMAN PERIOD (*Domination Romaine*).

[Roman remains being in all parts of the world very similar, a few specimens only have been sent, viz., some objects of iron and leather, remarkable for their preservation; and specimens of pottery made in Britain.]

94. KNIFE, iron, well preserved, with a bone handle, and a loop at the top. Found in London.
 - 95-100. SIX STYLI OF IRON FOR WRITING; the pointed end for writing on the wax, the flat for erasing; they are in a remarkable state of preservation, and two of them are ornamented with yellow metal. Three of them were found near the Royal Exchange, and three on the site of the Steel-yard, London.
 101. ROMAN LEATHER SHOE, cut out into loops at the sides, through the ends of which a cord or leathern tie was passed. Found in London.
 102. SOLE OF A ROMAN LEATHER SANDAL, with iron nails. Found in London.
 103. FRAGMENT OF A LEATHER SHOE, with loops cut out. Found in London.
 104. FRAGMENT OF A LEATHER SHOE, of more elaborate work. Found in London.
- ANGLO-SAXON PERIOD (*Epoque Anglo-Saxonne*).
105. SET OF SILVER PINS, partly gilt; they are three in number, and united by links. The heads are richly ornamented with interlaced patterns somewhat of an Irish style, and the workmanship is probably to be referred to the North of England, of which Lindisfarne and Durham were the principal centres, and from their connection with the Scoti, or Irish monks, adopted an Irish style of ornament. Probably 9th century. Found in the river Witham, at Lincoln.

Objects found in an Anglo-Saxon Cemetery on Harnham Hill, near Salisbury.

106. BOSS OF ANGLO-SAXON SHIELD, iron,

convex, and ending in a point; four studs to fasten it.

107. HANDLE OF SHIELD, iron.
108. SPEAR-HEAD, iron, of a long type, and with widely split socket.
109. SPEAR-HEAD, iron, of peculiar type; lozenge-formed blades, the sides of which are alternately depressed so that the weapon might rotate when thrown.
110. PLATE OF IRON, lozenge-shaped, used to cover part of the wood.
111. KNIFE BLADE, iron.
112. BUCKLE, iron.
113. STEEL, used for striking light.
- 114-116. Three flint chips, used probably with No. 113.

POTTERY.

[The pottery has been placed on the top of the case, and may be conveniently described together.]

117. BRITISH DRINKING CUP, of the stone period. Found in a barrow at Alfriston, Sussex. It has on it the impressions of a twisted cord.
118. VASE, of thin black Roman pottery; a castaway, and cracked in the baking. It was found in the Upchurch marshes in Kent, and was made at an extensive manufactory situated there, under the Romans.
119. ROMAN BOTTLE, grey, with a few ornaments. Found at Lincoln, on the site of the pottery.
120. ROMAN DRINKING CUP, of thin ware, with scrolls in relief. It is coated with colour. Though found in the Thames, this specimen was unquestionably made at the large Roman fabric of pottery at Caistor, Northamptonshire.
121. ROMAN BOTTLE, of dense pottery, painted brown and with white slip ornaments. Found on the site of a kiln in the New Forest, Hampshire.
122. DRINKING CUP, of dense brown ware, like stone ware. Found on the site of a kiln in the New Forest.
123. OPEN VESSEL, of pale grey ware, found in London, and probably made at a Roman pottery, of which the site was near the present cathedral church of St. Paul's, London.
124. VASE, of dull black ware, Anglo-Saxon; a fine specimen, ornamented with horizontal ribs round the upper part, and impressed patterns, some of which are fylots. Found at Shropham in Norfolk.
125. VASE, of black ware, Anglo-Saxon, with elaborate impressed ornaments. Found in an Anglo-Saxon cemetery at Frilford, Berkshire.

FOURTH AND FIFTH EPOCHS.

From the Departure of the Romans, A.D. 409, to the Norman Conquest, A.D. 1066.

*** A few Anglo-Saxon objects of early date, lent by the Trustees of the British Museum, are shown in Case A, and have been already described: see Nos. 105 to 116, and Nos. 124, 125.

METAL WORK, INCLUDING JEWELLERY, ETC.

CASE. NO.

- B 126. BROOCH, bronze, overlaid with silver at the back, and with gold in front. Anglo-Saxon. Found in the Isle of Thanet.

The Earl Amherst.

127. RING BROOCH, bronze, enamelled. Ancient Irish. Found in a tumulus at Lagore, Co. Meath.

Lord Talbot de Malahide.

128. ORNAMENT, bronze, perforated and enamelled, and inlaid with vitreous mosaic. Ancient Irish. Found in a tumulus at Lagore, Co. Meath.

Lord Talbot de Malahide.

129. BOWL, bronze, overlaid with appliqué ornaments and rude figures of deer, birds, fishes, &c. Early Anglo-Saxon. Found near Lullingstone Castle, Kent.

Sir Percyvall Hart Dyke, Bart.

130. FIBULA, gold; an arched handle with cup-shaped ends. Ancient Celtic (?)

The Royal Irish Academy.

131. FIBULA, gold; the largest known; an arched handle with cup-shaped ends. Ancient Celtic (?)

The Royal Irish Academy.

132. TORQUE, or breast ornament of gold; the largest known. Found (1810) at Tara, Co. Westmeath.

The Royal Irish Academy.

133. ORNAMENT, gold; believed to be the ancient Celtic 'mind,' or head-ornament. Found 1836, in Co. Tipperary. Ancient Celtic.

The Royal Irish Academy.

134. ORNAMENT, bronze, portion enamelled, and inlaid with vitreous mosaics. Ancient Celtic, 10th or 11th century.

College of St. Columba, near Dublin.

135. FIBULA, bronze. Found in Ireland. Probably of the 4th or 5th century.

College of St. Columba, near Dublin.

136. BROOCH, silver, ring formed, with long pin; the ends and the head of the pin finished with the arbutus berry pattern. Irish, 11th or 12th century.

Trinity College, Dublin.

137. FIBULA, gold; an arched handle with cup-shaped ends.

Trinity College, Dublin.

138. HORN, known as 'The Kavanagh Horn,' mounted in bronze. Irish, 11th or 12th century.

Trinity College, Dublin.

CASE. NO.

B 139. PASTORAL STAFF, called the Staff of St. Melis; yew wood, overlaid with bronze; interlaced ornament, studded with coral and glass. Irish, 11th century.

The Right Rev. Bishop Kilduff.

140. BELL and SHRINE of St. Patrick. The bell, of sheet iron, reputed to be of the 5th century, enclosed in a shrine of the 11th century. The framework of brass, inlaid with plaques of gold filigree work. A panel of silver, perforated with crosses, and surrounded by an inscription in Irish characters at the back.

The Rev. Dr. Todd.

O 141. RING, gold, large quatrefoil-formed bezel, inlaid with filigree work, marked with lines and dots of niello and enamel. Irish (?). 11th century.

Lord Fitzhardinge.

142. RING, gold, with oval bezel, overlaid with granulated filigree work. Anglo-Saxon.

R. H. S. Smith, Esq.

B 143. ARMLET, gold. Found near Aspatria, Cumberland. Ancient Celtic (?)

W. Forster, Esq.

ARMOUR.

C 144. HELMET, Anglo-Saxon, or Danish. Found in the ruins of Oxford Castle. Date about A.D. 700.

Hon. Robert Curzon.

145. HELMET, Anglo-Saxon, with a nasal. Of the period of King Edward the Confessor, if not earlier. Dug up in Oxfordshire. Date about A.D. 1000.

Hon. Robert Curzon.

SIXTH EPOCH.

From the Norman Conquest (1066) to the close of the Plantagenet Dynasty (1485).

METAL WORK, INCLUDING PLATE, ETC.

CASE. NO.

B 146. PASTORAL STAFF, wood overlaid with bronze, supposed to have been used by St. Carthag, first Bishop of Lisimore; A.D. 1112-1113. Irish.

The Duke of Devonshire.

147. PASTORAL STAFF, 'The Clonmacnoise Crozier,' wood overlaid with bronze; inlaid with silver and nielloed. Irish, 12th century.

The Royal Irish Academy.

E 148. PASTORAL STAFF, 'The Limerick Crozier,' silver-gilt and enamelled; the head of elaborate tabernacle work, with many figures of saints. In the centre of the volute is represented the Annunciation. Irish, dated 1418.

The Right Rev. Bishop Butler.

CASE. NO.

E 149. MACE of the University of Glasgow. Silver; the head gilt, of elaborate tabernacle work. Date, 1465.

The Very Rev. the Principal and the Senate of the University of Glasgow.

B 150. CANDLESTICK, bronze gilt, known as the 'Gloucester' candlestick; elaborate interlaced work, figures, bands of inscriptions, &c. Made for the Abbey of Gloucester, by order of the Abbot Peter. About 1104.

South Kensington Museum.

151. CASKET, copper-gilt and enamelled; probably made for William or Aymer de Valence. About 1290-1300.

South Kensington Museum.

E 152. CUP and COVER, silver-gilt. The 'Lynn' Cup, enriched with translucent enamel. Date, the middle of the 14th century.

Corporation of King's Lynn.

153. SALT-CELLAR, silver-gilt, with pyramidal cover. Latter part of the 15th century. Given to the college by Walter Hill, in 1493.

New College, Oxford.

154. COCOA-NUT CUP, mounted in silver-gilt, resting on three figures of angels. Date, about 1450.

New College, Oxford.

155. COCOA-NUT CUP, mounted in silver-gilt; foliage round the bowl, rustic palisade round the foot. Date, early 15th century.

New College, Oxford.

156. MAZER BOWL, in silver-gilt mounting of the 15th century.

All Souls College, Oxford.

157. COVER, probably of a Nautilus cup, or of a navicula, silver-gilt, decorated with cloisonné and champlévé enamels. Date, about 1300-40.

All Souls College, Oxford.

158. CUP, known as the 'Grace Cup of St. Thomas-à-Becket'; ivory, mounted in silver-gilt. Date, 1445.

Philip H. Howard, Esq., of Corby.

B 159. MEDALLIONS (two), copper gilt and enamelled. One represents the Virgin with the infant Saviour seated under a canopy, the back-ground is enamelled red, and has two shields bearing the arms of the Cistercian Abbey of St. Mary-at-Warden, in Bedfordshire, *az.* three pears, or: the other medallion represents the Crucifixion, the back-ground is enamelled, and exhibits two croziers and the letters W. C., probably the initials of an Abbot, the border of each medallion is formed of winged angels. Date, 14th century.

The Trustees of the British Museum.

ARMOUR.

CASE. NO.

C 161. HELMET, Anglo-Norman, formerly in a church in Berkshire; probably belonging to the family of Curzon, who founded the church. Date, about A.D. 1100.

Hon. Robert Curzon.

162. HELMET, Anglo-Norman, with a close vizor, and flat top. Found in the ruins of Eynsford Castle, belonging to the family of Zouche. Date, about 1150.

The Earl of Warwick.

163. HELMET, flat-topped cylindrical, with a nasal, and a hook for attaching the mentoniere of chain mail. Date, about 1150.

Tower of London.

164. HELMET, cylindrical flat-topped, with an aventaille. Date, about 1160.

Tower of London.

165. HELMET, cylindrical, with an ornamental top. Dug up near Farnham, in Hampshire. Date, about 1180.

Hon. Robert Curzon.

166. HELMET, cylindrical, with an opening for sight in the form of a T. The crown no longer quite flat. Date, about 1200.

Hon. Robert Curzon.

167. HAUME, or Tilting Helmet? with a round top, and close vizor. Date, about 1250.

Hon. Robert Curzon.

168. HELMET, close, for the Tournament, with a very sharp-pointed crown, and the original chain of 31 links remaining. Date, about 1275.

Hon. Robert Curzon.

169. HELMET, with a moveable vizor, and a chain camail attached to it; the top round. Date, about 1350.

The Earl of Warwick.

170. BASINET, with a pointed vizor, and a gorget attached. Date, about 1360.

Tower of London.

171. SOLLERET, or foot armour, with long toe. Date, 14th century.

The Earl of Warwick.

172. ARMOUR (nine pieces), consisting of two leg pieces, two sollerets or foot pieces,

180. one stirrup, two gauntlets, and two pieces for the fore-arm. Date, 14th century.

The Earl of Warwick.

181. BASINET, which has had a pointed vizor and a gorget. This probably belonged to Thomas Beauchamp, Earl of Warwick. Date, about 1360.

The Earl of Warwick.

CASE. NO.

C 182. TILTING HELMET, resembling the helmet of Edward the Black Prince, which hangs over his tomb in Canterbury cathedral. Date, about 1370.

Hon. Robert Curzon.

183. TILTING HELMET, with the crown somewhat peaked. Date, about 1400.

Hon. Robert Curzon.

184. TILTING HELMET, of Richard Beauchamp, Earl of Warwick. It opens at the sides and back in a singular manner, and is exactly represented on his tomb, in the Beauchamp chapel, at Warwick. The spike on the top is for the crest of a swan's head, which is in existence. The Earl died 1435.

The Earl of Warwick.

185. TILTING HELMET. Date, about 1450.

Tower of London.

CARVINGS IN IVORY, ETC.

B 186. CHESS PIECES (sixteen), walrus ivory, to consisting of a king, a queen, two bishops, two knights, two warders (castles), and eight pawns. These were found, with a number of others, in the parish of Uig, Isle of Lewis, Hebrides. Date, latter part of the 12th century.

The Trustees of the British Museum.

O 202. TRIPTYCH, boxwood, carved with the Crucifixion, and figures of St. John Baptist, and St. John of Beverley. Date, about 1340.

Lord De l'Isle and Dudley.

JEWELLERY, ETC.

B 203. BROOCH, known as the 'Hunterston' Brooch; annular, white bronze, inlaid with delicate gold filigree, and granulated work, and set with amber bosses; a Runic inscription on the back. Found on the estates of Robert Hunter, Esq., at West Kilbride, Ayrshire, in 1830. Celtic. Date, about 11th century.

Robert Hunter, of Hunter, Esq.

204. BROOCH, known as the 'Tara' Brooch; white bronze, overlaid with plates of delicate gold filigree work, and set with amber and gems (much injured). Irish. Date, 12th century.

Messrs. Waterhouse, Dublin.

205. BROOCH, ring form, gold set with jewels, inscribed + IM IC VI. 14th century. Found at Sydling, Dorset.

Rev. C. W. Bingham.

CASE. NO.

O 206. CROSS, gold, with an enamelled figure of our Blessed Lord; a pectoral cross. 15th century.

Lady Rokewood Gage.

207. RING, gold, set with a large sapphire; an episcopal ring. 13th century. Found in Winchester Cathedral.

The Dean and Chapter of Winchester.

208. RING, gilt bronze, set with a paste imitation of a sapphire. Found in Winchester Cathedral, under the tomb of William Rufus, and supposed to have been the episcopal ring of Henry de Blois, Bishop of Winchester (died 1171).

The Dean and Chapter of Winchester.

209. RING, gold, set with a pale uncut ruby. Said to be about the date 1192.

Dean and Chapter of Wells.

210. RING, gold, broad hoop, chased with sacred subjects; a motto inside. Date, 13th century. *Rev. J. Beck.*

211. RING, gold, set with an amaldine garnet; an episcopal ring. Found at Wells. 15th century.

R. H. Soden Smith, Esq.

212. RING, gold, with inscription; a betrothal ring. Found in Westminster. 15th century.

R. H. Soden Smith, Esq.

213. RING, gold, set with a sapphire; an episcopal ring. Found near Norwich Cathedral. 13th century.

R. H. Soden Smith, Esq.

PRINTING.

D 214. BOOK. *Le Fèvre, Recueil des Histories de Troyes*, 2nd Book. Printed abroad by William Caxton, about 1470, and the first book printed in French.

The Trustees of the British Museum.

LEATHER WORK.

B 215. UPPER LEATHER OF A LADY'S SHOE (imperfect); *cuir bouilli*, ornamented in open work, with several figures, and inscriptions in French, including the motto, *honny soit qi mal y pense*. This was found in London, and, although the mottoes are French, various peculiarities in the language seem to show that the shoe was made in England, probably for a royal or noble personage. Date, latter half of 14th century.

The Trustees of the British Museum.

SEALS.

(See List at the end of the Tenth Epoch.)

SEVENTH EPOCH.

The Tudor Dynasty. From 1485 to 1603.

METAL WORK, INCLUDING PLATE, ETC.

CASE. NO.

N 216. EWER and SALVER, silver-gilt, chased

217. with strap-work, cartouches, &c. Date, 1597.

Her Majesty the Queen.

E 218. CUP, silver-gilt, called the 'Anathema' Cup, from an inscription under the foot—'Qui alienaverit anathema sit.' Given to Pembroke College by J. Langton, Bishop of Winchester in 1497. Hall-mark, 1481.

Pembroke College, Cambridge.

219. SALT-CELLAR, silver-gilt, hexagonal. Hour-glass shape, covered with foliated open work in which are figures of various animals; the cover of similar work set with pearls. Date, about 1500. Given to the College by Bishop Fox, the founder, about 1517.

Corpus Christi College, Oxford.

220. PASTORAL STAFF of Bishop Fox, silver-gilt and enamelled; the head of tabernacle work with numerous figures of saints; the curve supported by a winged angel, and enclosing a figure of St. Peter. English, 15th century. Given to the College by Bishop Fox, the founder, about 1517.

Corpus Christi College, Oxford.

221. CHALICE, silver-gilt with enamel knob; hexafoil foot, engraved with figures of our Blessed Lord and five saints. Given to the College by Bishop Fox, the founder. Date, about 1508.

Corpus Christi College, Oxford.

222. CUP AND COVER, silver-gilt, matted surface, embossed with bold leaf-shaped ornaments, and set with precious stones. A strawberry-leaf border surrounds the base and the lip of the cup, and also the top of the cover. Date, latter part of 15th century.

The Warden and Fellows, Winchester College.

223. SALVER, parcel-gilt, an enamelled boss in the centre; two bands of inscriptions. Dated 1563.

The Warden and Fellows, Winchester College.

224. SWORD, two-edged blade, straight cross hilt. Time of Henry VIII.

Corporation of York.

225. CUP, tazza form, silver-gilt, engraved with the arms of the City of Norwich, and the inscription THE MOST HEREOF IS DVNE BY PETER PETERSON, round the rim. He was an

CASE. NO.

eminent goldsmith of Norwich in the reign of Queen Elizabeth. Latter half of the 16th century.

Corporation of Norwich.

- E 226. COLLARS, a pair of 'Waits' collars,
227. silver, parcel-gilt; the links formed of a castle and a lion alternately. Date, 16th century.

Corporation of Norwich.

228. EWER and SALVER, silver-gilt, of repoussé or beaten work with figures of cupids, sea monsters, &c. The subject of Neptune and Amphitrite on the salver. The plate-mark of 1597.

Corporation of Norwich.

230. SALT-CELLAR and COVER, silver-gilt, decorated with repoussé or beaten work, and engraved. Made at Norwich not later than 1568.

Corporation of Norwich.

231. MACE, rock crystal, mounted in silver-gilt and jewelled. A 'Chamberlain's Mace,' said to have been presented to the City of Norwich by Queen Elizabeth. Date, 16th century.

Corporation of Norwich.

232. CUP and COVER, silver-gilt; the surface covered with crossed bands, enclosing maidens' heads and flagons, the badges of the Company. Round the cup and cover are bands of enamel with inscriptions in silver. Hall-mark for 1499-1500.

Mercers' Company.

233. CARRIAGE, on four wheels, silver-gilt,
234. moved by internal mechanism, enriched with arabesque work, scrolls, and circular enamels, and surmounted by various figures. On this rests a TUN or WINE BARREL, of similar work. Date, first half of 16th century.

Mercers' Company.

- I 235. DISH, silver, parcel-gilt (a rose water dish); a boss in the centre, surrounded by flowers, lions' heads, &c. Date, 1590.

Merchant Taylors' Company.

236. DISH, silver, parcel-gilt (a rose-water dish); a boss in the centre, surrounded by flowers, dolphins, &c. Date, 1597.

Merchant Taylors' Company.

- E 237. SALT-CELLAR, silver-gilt, on pedestal, with cover, repoussé ornaments of lions' heads, flowers, and strap-work. Date, 1581.

Baron Lionel de Rothschild, M.P.

238. SALT-CELLAR, silver-gilt, with cover; base of lions' heads in scroll borders

CASE. NO.

and flowers. It is surmounted by a bearded nude figure. Date, 1583.

Baron Lionel de Rothschild, M.P.

- E 239. SUGAR CASTER, silver-gilt; with figures of Faith, Hope, and Charity. Date, about 1580.

Joseph Bond, Esq.

240. JUG, brown mottled ware, mounted in silver-gilt; with Hall-marks and date letter for 1571.

J. P. Dexter, Esq.

241. CUP, tazza form, silver-gilt; with Hall-marks and date letter for 1593.

J. P. Dexter, Esq.

242. CUP or CHALICE, silver-gilt, the bowl plain outside, engraved inside. Hall-marks and date letter for 1592.

J. P. Dexter, Esq.

243. JUG, stoneware, with silver-gilt cover and mounts. Dated 1560.

R. Temple Frere, Esq. M.D.

- F 244. CHALICE and COVER, silver, chased with a band of conventional foliage. Dated 1571.

G. Moffatt, Esq., M.P.

245. TANKARD, with COVER, silver. Hall-mark for 1577.

G. Moffatt, Esq., M.P.

- E 246. SNUFFERS (a pair), silver-gilt; inscribed 'God save the Kynge Edwarde, wythe all his noble counsel.' Date, about 1550.

H. Danby Seymour, Esq.

- F 247. CHALICE and COVER or PATEN, silver; the paten or cover engraved with the Tudor rose. Date about 1560 (?).

South Kensington Museum.

JEWELLERY, ETC.

- O 248. ROSARY and CRUCIFIX of Mary Stuart, Queen of Scots; gold, originally enamelled. Date, about 1550.

Philip H. Howard, Esq., of Corby.

249. RING, gold, bearing the signet of Sir Edward Howard, K.G., standard-bearer to King Henry VIII.

Philip H. Howard, Esq., of Corby.

250. RING, gold, set with an oval intaglio, small rubies on either side. Found in the coffin of Stephen Gardiner, Bishop of Winchester. Date, 1st half of 16th century.

Dean and Chapter of Winchester.

251. RING, gold, engraved within and without with sacred devices and inscriptions referring to the five wounds of our Blessed Lord. Found in Coventry Park. Date, end of the 15th or beginning of the 16th century.

J. Dyer Edwardes, Esq.

CASE. NO.

O 252. RING, with motto; a posy ring. 16th century.

R. H. Soden Smith, Esq.

253. RING, gold, a wedding ring; with posy motto, 'Seithe God hath wrought this choice in thee, so frame thyself to comfourth me.' Date, 16th century.

South Kensington Museum.

254. JEWEL, gold, enamelled, in the form of a coffin containing a skeleton. Found at Tor Abbey, Devonshire. Date, about 1550.

South Kensington Museum.

255. MINIATURE CASE, gold, the back enamelled with arabesque scrolls, flowers, &c., on black ground, the front pierced and set with precious stones; containing a portrait miniature of Queen Elizabeth, by Hildyard. Date, about 1580.

South Kensington Museum.

256. MINIATURE CASE, gold, enamelled with arabesque scrolls on black ground, containing a portrait miniature of Sir F. Drake. Date, about 1590.

R. Phillips, Esq.

257. PLAQUE, gilt copper, with a shield of arms in champlevé enamel, and the motto 'Espoir en Dieu.' Below is written 'The armys of the ryght worshipful maester Tonge, otherwyse callyd maester Clarencius, and mis-teris Susan hys wyfe, 1554.'

South Kensington Museum.

WATCH.

258. WATCH, oviform, in a crystal and enamelled case; said to have belonged to Queen Elizabeth. 16th century.

The Royal Institution.

MINIATURE PORTRAITS.

259. MINIATURE PORTRAIT of Queen Elizabeth, by Nicholas Hilliard (1547-1619).

Samuel Addington, Esq.

260. MINIATURE PORTRAIT of Lady Arabella Stuart, by Isaac Oliver (1556-1617).

G. Wingfield Digby, Esq.

261. MINIATURE PORTRAIT of Sir Philip Sidney, by Isaac Oliver (1556-1617).

John Jones, Esq.

262. MINIATURE PORTRAIT of George Villiers, first Duke of Buckingham, by Isaac Oliver (1556-1617).

Earl of Gosford.

263. CAMEO PORTRAIT of Queen Elizabeth, in onyx of three strata; date about 1580.

Heywood Hawkins, Esq.

CASE. NO.

O 264. CAMEO PORTRAIT of Queen Elizabeth, in onyx of three strata; date about 1580.

South Kensington Museum.

ARMOUR.

C 265. TILTING HELMET. Date, about 1490.

Tower of London.

266. SHIELD OR TARGET, with a match-lock breech-loading pistol in the centre; one of twenty-one belonging to the guard of King Henry VIII. Date, about 1530.

Tower of London.

PRINTING.

D 267. BOOK. Holinshed's Chronicles, vol. i. London, 1577, fol. 1st edition.

The Trustees of the British Museum.

SEALS.

(See List at the end of the Tenth Epoch.)

EIGHTH EPOCH.

The Stuart Dynasty, 1603 to 1714.

METAL WORK, INCLUDING PLATE, ETC.

CASE. NO.

WALL 268. FRAME, silver, repoussé or beaten work, with festoons of fruit and flowers, interspersed with cupids; at the top, within a cartouche, is a shield, with the cypher of King Charles II. Date, about 1670.

Her Majesty the Queen.

I 269. TABLE, silver, covered with foliage in repoussé or beaten work, and bearing the monogram of Charles II. Date, about 1670.

Her Majesty the Queen.

H 270. TABLE, silver, chased, with the arms of William III. in the centre. Date, about 1700.

Her Majesty the Queen.

I 271. SCONCES (a pair), silver-gilt, with subject on each of 'The Judgment of Solomon,' and bearing the crowned monogram of William III. Date, about 1700.

Her Majesty the Queen.

H 273. FIRE DOGS (a pair), silver-gilt, on quadrangular bases; formerly belonging to Charles II., and bearing his monogram (subsequently engraved with the arms of the Prince Regent; the bases modern). Date, about 1670.

Her Majesty the Queen.

I 275. FIRE DOGS (a pair), silver-gilt, each sur-
276. mounted by a boy holding a basket

CASE. NO.

of fruit; in front of each is the crowned cypher of William III. Date, 1696.

Her Majesty the Queen.

- I 277. CHALICE and PATEN, silver-gilt; bearing the monogram of William III.; Hall-marks and date letter for 1697.
The Duke of Manchester.

279. ALTAR CANDLESTICKS (a pair), silver-gilt; bearing the monogram of William III. Hall-marks and date letter for 1697.

The Duke of Manchester.

281. CANDLESTICKS (a pair) brass, enamelled in black and white. 17th century.

The Earl of Warwick.

- L 283. FLAGONS (a pair), silver, in the form of pilgrim's bottles. Made for the Duke of Marlborough, about 1700.
Earl Spencer.

- G 285. ICE PAILS (a pair), gold; with lion's heads at the sides, moulded feet, and gadrooned borders. Given by Queen Anne to the Duke of Marlborough, about 1710.

Earl Spencer.

287. EWERS (a pair) silver; helmet form, with handles formed of terminal female figures. Made for the Duke of Marlborough (whose arms they bear), in 1702.

Earl Spencer.

- L 289. WINE COOLER OF ICE CISTERN, silver, with gadrooned edge; a handle at each end, standing on four scroll feet. Made for the Duke of Marlborough (whose arms it bears inside), in 1702.

Earl Spencer.

290. WINE FOUNTAIN and CISTERN, silver.
291. Made for the Duke of Marlborough (whose arms they bear), in 1702.

Earl Spencer.

- G 292. BOWL OF MONTEITH; silver, with two handles, and vandyked edge surmounted by cherubs' heads. Made for the Duke of Marlborough, in 1702.

Earl Spencer.

- M 293. WINE FOUNTAIN and COVER, silver, fluted and gadrooned surface, the cover surmounted by a crest of a lion issuing from a castle; date about 1710.

Earl of Chesterfield.

294. WINE CISTERN, silver, fluted and gadrooned; lion handles and claw feet; date about 1710.

Earl of Chesterfield.

- 294 A. B. C. D. FIRE DOGS (two pairs) brass enamelled in green, blue, and white,

CASE. NO.

with the royal shield in colours. Early 17th century: presented by Charles I., when Prince of Wales, to the family of Long, in Wiltshire.

Earl Cowley.

- M 294E. HOLY WATER VESSEL, silver repoussé work.

Earl Cowley.

- F 295. SALVER, silver; with inscription on the back, stating that the Earl of Strafford was served from it for the last time. Date about 1630.

Lord Houghton.

296. CUPS (a pair), silver-gilt; chocolate

297. cups, with covers and stands, two-handled, chased with foliage, &c. Hall-marks and date letter for 1700.

Lord Crewe.

- I 298. SALVER, silver-gilt, repoussé in high relief. Date, 1662.

Baron Lionel de Rothschild, M.P.

- F 299. CUP, gold; engraved with coats of arms, and bearing an inscription, stating that it was given to the Corporation of York by Marmaduke Rawdon, in 1672.

Corporation of York.

300. CUP and COVER, silver-gilt, on baluster stem and wide foot; engraved with coats of arms and inscriptions, and dated 1679.

Corporation of York.

301. TANKARD, silver-gilt, strap-work, flowers, fruit, &c. Date, 1618.

Corporation of Norwich.

302. MACES (two), silver-gilt; the heads bearing the royal arms of Queen Anne, and of the City of Bath.

Date, about 1710.

Corporation of Bath.

304. MACE, silver; the head in form of a bowl, engraved with inscriptions and coats of arms. Date, 1604.

Corporation of Morpeth.

305. SALVER, silver, chased and repoussé work, of dolphins, fruit, &c. Date, about 1600. The gift of John Burnell, who died 1605.

Clothworkers' Company.

- I 306. SALVER OF ROSE-WATER DISH, silver gilt, chased and repoussé work of dolphins, flowers, fruit, &c. Date, 1627.

Clothworkers' Company.

- F 307. SALT-CELLAR, silver, parcel-gilt; shells supported by dolphins. 17th century.

Fishmongers' Company.

308. CUPS (four), with covers, silver-gilt, to embossed with foliage. An obelisk

311. on the cover of each. The master's cup, 1611. Senior warden's cup,

CASE. NO.

1611. The junior warden's cup,
1612. And the middle warden's
cup, 1628. *Carpenters' Company.*
- F 311A. TAZZA, silver, with figures of deities.
1683. *Sir W. C. Trevelyan, Bart.*
- K 312. TOILET SERVICE, silver; twelve pieces,
to
323. consisting of mirror, caskets, boxes,
&c., embossed with foliage and
figures of heathen deities. Hall-
mark for 1683-4.
Sir W. C. Trevelyan, Bart.
- F 324. SCEPTRE of Sir Henry St. George,
Garter King-at-Arms, in the reign of
Charles I.; silver, parcel-gilt, the
head enamelled with the royal arms
and the Garter, and surmounted by
a royal crown.
Mrs. Stackhouse Acton.
325. SALVER, silver, with flowers and animals
in beaten work. Date, 1664-5.
Joseph Bond, Esq.
326. CUP, silver; a caudle cup, with cover
and two handles, embossed foliage;
the inside gilt. Hall-marks and
date letter for 1679.
Joseph Bond, Esq.
327. CUP and COVER, silver-gilt, of dode-
cagonal form. Date, 1652.
Paul Butler, Esq.
328. CUP, silver, supported by a standing
figure of Vulcan, with inscriptions
and arms of the Blacksmiths' Com-
pany. Hall-marks and date letter
for 1655.
J. P. Dexter, Esq.
329. CUP and COVER, silver gilt, repoussé
or beaten work; the cover sur-
mounted by a female figure bearing
a shield with a merchant's mark.
Hall-marks and date letter for 1613.
J. P. Dexter, Esq.
330. BOWL or CUP, silver, two handled,
embossed with flowers and foliage.
Inscribed and dated 1676.
R. Dicker, Esq.
331. CASKET, silver, pierced and chased;
said to have been the work-box of
Queen Henrietta Maria; medallion
portraits of Charles I. and his Queen
inside the lid. Date, about 1630.
Henry Durlacher, Esq.
332. SPOONS (six), 'Apostle Spoons,' silver.
to
337. 17th century.
R. Temple Frere, Esq., M.D.
- G 338. CUPS (silver, six), each with two
to
343. handles. Late 17th century.
R. Temple Frere, Esq., M.D.
- F 344. SALT-CELLAR, silver-gilt, in form of a
square temple with four Corinthian
columns. Date, 1606.
R. Neville Grenville, Esq.

CASE. NO.

- I 345. SCONCES (a pair), silver, each bearing
346. the cypher of William III., and
surmounted by a royal crown. About
A.D. 1690. (The sockets are modern.)
Ralph Sneyd, Esq.
- G 347. KETTLE, with stand and spirit lamp,
silver, two taps; engraved on the
sides with the arms and monogram
of William III. Date, about 1690.
G. Moffatt, Esq., M.P.
- F 348. TAZZA, silver gilt, the border of flowers
in repoussé or beaten work, and
chased. Hall-mark for 1661.
G. Moffatt, Esq., M.P.
349. CUP, silver gilt, on tall stem, the
bowl surrounded by a broad band
of fine diaper work. Hall-mark of
1608.
G. Moffatt, Esq., M.P.
350. TANKARD, with COVER, silver, en-
graved with two coats of arms and
with an inscription dated 1681.
G. Moffatt, Esq., M.P.
- G 351. CANDLESTICKS (a pair), silver, square
352. bases chased with scroll work,
fluted pillars. Hall-mark for 1682.
G. Moffatt, Esq., M.P.
- F 353. CUP and COVER, silver gilt, a loving
cup, the bowl and cover surrounded
by bands of flowers in repoussé or
beaten and chased work. Hall-
mark for 1701.
G. Moffatt, Esq., M.P.
- G 354. BOWL or MONTEITH, silver, gilt inside,
with two ring handles, the surface
fluted, two cartouches engraved
with crests. Hall-mark for 1701.
G. Moffatt, Esq., M.P.
- E 355. CUP and COVER, silver-gilt, with bands
of scroll work in relief, alternately
with engraved subjects of the chase.
Hall-mark for 1611.
South Kensington Museum.
- K 356. CUP and COVER, silver parcel-gilt, with
appliqué work. Date, about 1670.
South Kensington Museum.
- F 357. BASIN and COVER, silver-gilt, with
bands of flowers. Date, 1660.
South Kensington Museum.
358. PLATEAU, silver gilt, with four com-
partments of equestrian figures.
Hall-mark, 1674.
South Kensington Museum.
359. FIRE DOGS (a pair), brass, enamelled
360. in blue and white. English. Early
17th century.
Rev. Edward Duke.

CASE. NO.

- F 361. FIRE DOGS (a pair), brass, enamelled in blue and white. English. Early 17th century. *Rev. Edward Duke.*

JEWELLERY, ETC.

363. RING, gold, with a portrait of King Charles I. in the bezel under crystal; said to have been presented by the king to Sir Edmund Verney, his standard-bearer. Date, about 1640. *Sir Harry Verney, Bart. M.P.*

364. RING, gold, set with pearls. Early 18th century.

R. H. Soden Smith, Esq.

365. RING, gold, with monogram under crystal. Late 17th century.

R. H. Soden Smith, Esq.

366. RING, gold, a wedding ring; with posy, 'As God decreed so wee agreed.' Date, 17th century.

South Kensington Museum.

367. RING, gold enamelled, a betrothal ring; with motto, 'As true to thee as death to mee.' Date, 17th century.

South Kensington Museum.

CLOCK AND WATCHES.

368. CLOCK, silver; the bed-side clock of King Charles I.; given by the king to Colonel Herbert, on his way to execution, January 30, 1649. The outer case is of silver, pierced and chased, enclosing two silver bells, on which the hours and quarters are struck. Made by Edward East, London. Date, about 1635.

W. Townley Mitford, Esq., M.P.

369. WATCH, silver, with several astronomical dials. The outer case of black shagreen, with silver piqué work. Date, early 17th century.

E. St. John Mildmay, Esq.

370. WATCH, gilt metal, the case chased and pierced. Maker's name, 'Thomas Taylor, in Holbourn.' Date, 17th century.

South Kensington Museum.

371. WATCH, gold, in detached case, chased with the subject of Joseph and Potiphar's wife. Date, 1684-5.

South Kensington Museum.

372. WATCH, gilt metal, the outer case pierced and chased; on the front is represented the sacrifice of Abraham. Date, 17th century.

South Kensington Museum.

373. KNIFE and FORK, with ivory hilts, inlaid with silver piqué work. An inscription round each of the hilts in piqué work, 'Benjamin Ayloffe, anno 1685.'

South Kensington Museum.

CASE. NO.

MINIATURE PORTRAITS.

- O 375. MINIATURE PORTRAIT of Henry Wriothesley, Earl of Southampton, the friend of Shakspeare, by Peter Oliver (1601-1660).

Duke of Marlborough.

376. MINIATURE CASE, gold enamelled with flowers in various colours (containing portraits of Sir Kenelm and Lady Venetia Digby). Date, about 1632.

G. Wingfield Digby, Esq.

377. MINIATURE PORTRAIT of Sir Kenelm Digby, after Vandeyck, by Peter Oliver; dated 1632.

G. Wingfield Digby, Esq.

378. MINIATURE PORTRAIT of Lady Venetia Digby, after Vandeyck, by Peter Oliver; dated 1632.

G. Wingfield Digby, Esq.

379. MINIATURE PORTRAIT of Elizabeth, Queen of Bohemia, daughter of King James I., by John Hoskins (died 1664).

Samuel Addington, Esq.

380. MINIATURE PORTRAIT of King Charles II., by Samuel Cooper (1609-1672).

Duke of Richmond.

381. MINIATURE PORTRAIT of the Earl of Pembroke, by Samuel Cooper (1609-1672).

Samuel Addington, Esq.

382. MINIATURE PORTRAIT of William Lenthall, Speaker of the House of Commons during the Long Parliament, by Samuel Cooper; signed S. C. 1652.

R. S. Holford, Esq., M.P.

383. MINIATURE PORTRAIT of Elizabeth Claypole, the favourite daughter of Oliver Cromwell, by Samuel Cooper; signed S. C. 1653.

Duke of Devonshire.

384. MINIATURE PORTRAIT of Fanny Lady Bellasyse, by Samuel Cooper (1609-1672); signed S. C.

Rev. Walter Sneyd.

385. MINIATURE PORTRAIT of General Charles Fleetwood, by Samuel Cooper; signed S. C. 1656.

Earl of Gosford.

386. MINIATURE PORTRAIT of Sir John Carew, by Samuel Cooper (1609-1672).

W. H. Pole Carew, Esq.

387. MINIATURE PORTRAIT of Lady Carew, by Samuel Cooper (1609-1672).

W. H. Pole Carew, Esq.

388. MINIATURE PORTRAIT of James, first

CASE. NO.

Duke of Ormonde, by Thomas Flatman (1635-1680).

C. W. Reynolds, Esq.

- O 389. MINIATURE PORTRAIT of Sophia, Countess Granville, by Bernard Lens. (1680-1741).

Samuel Addington, Esq.

390. MINIATURE PORTRAIT of Letitia, daughter of the Rev. Sir J. Trelawney, Bart., by Bernard Lens (1680-1741).

W. H. Pole Carew, Esq.

391. MINIATURE PORTRAIT of Mrs. Ann Bernard, by Bernard Lens (1680-1741).

Earl of Gosford.

392. MINIATURE PORTRAIT of Anne, Countess of Sunderland, and her son, Lord Charles Spencer, after Sir Godfrey Kneller, by Bernard Lens; signed B. L. 1720.

Duke of Marlborough.

393. MINIATURE PORTRAIT of William, Duke of Gloucester, son of Queen Anne and Prince George of Denmark, by Bernard Lens (1680-1741).

Charles Villiers Bayly, Esq.

ARMOUR, ETC.

- C 394. ARMOUR, consisting of helmet, breast to and backplate, and gorget, plated with silver and chased, made for King Charles I. when a boy. Date, about 1615.

Tower of London.

398. MASK of the Executioner of State Criminals in the Tower of London. Iron. Date, 17th century?

Tower of London.

STONEWARE.

- S 399. BUST, Fulham stoneware, of a Dead Child, inscribed 'Lydia Dwight, dyed March 3rd, 1672.'

C. W. Reynolds, Esq.

400. FIGURE of a child, Fulham stoneware. Date, about 1670.

C. W. Reynolds, Esq.

401. FIGURE of a sportsman in the costume of Charles II.'s reign; Fulham stoneware. Date, about 1670.

C. W. Reynolds, Esq.

PRINTING.

- D 402. BOOK. Burton's Anatomy of Melancholy. 6th edition, London, 1652. Fol.

The Trustees of the British Museum.

403. BOOK. Fuller. A Pisgah Sight of Palestine. London, 1662. Fol.

The Trustees of the British Museum.

404. BOOK. The Book of Common Prayer, London, 1662. Fol. (Charles II.'s Prayer Book.)

The Trustees of the British Museum.

CASE. NO.

- D 405. BOOK. The Holy Bible. Cambridge. John Field. 1668. 4to.

The Trustees of the British Museum.

406. BOOK. Ogilby's Britannia. Vol. 1. London, 1675. Fol.

The Trustees of the British Museum.

407. BOOK. Burnet's History of the Reformation. Part 2. London, 1683. Fol.

The Trustees of the British Museum.

408. BOOK. Dryden's Fables. London, 1700. Fol.

The Trustees of the British Museum.

409. BOOK. Clarendon's History of the Rebellion. Vol. 1. Oxford, 1704. Fol.

The Trustees of the British Museum.

410. BOOK. The Spectator, by Addison. 1st edit. London, 1711, &c. Fol.

The Trustees of the British Museum.

SEALS.

LACE, ETC.

(See Lists under the Tenth Epoch.)

NINTH EPOCH.

The House of Hanover, to the Accession of George III. (1714 to 1760).

METAL WORK, INCLUDING PLATE, ETC.

CASE. NO.

- I 411. FLAGON, silver-gilt, in the form of a pilgrim's bottle, with chains attached to the cover. Date, about 1720. (Subsequently engraved with the arms of George Prince of Wales, afterwards George IV.)

Her Majesty the Queen.

- N 412. KETTLE and STAND, with lamp, silver-gilt, the kettle melon-shaped; the whole standing on a triangular silver-gilt salver. Date, 1732.

Her Majesty the Queen.

- H 413. EPERGNE or CENTRE PIECE, silver-gilt, on stand, with brackets for candles, castors, dishes, &c.; made for Frederick Prince of Wales, the father of George III. Date, about 1750.

Her Majesty the Queen.

- G 414. TANKARD and COVER, silver-gilt; the drum set with Dassier's medals of the Kings of England (issued about A.D. 1740). The cover bears the royal arms and cypher of Queen Anne, and is dated 1707. Above it, forming the purchase, is a figure of a bull dog; the handle formed of intertwined figures of satyrs. The tankard bears the Hall-mark for 1826-27, and was probably then re-made from portions of earlier vessels.

The Duke of Cleveland.

415. TANKARD and COVER, silver-gilt; on the drum is a battle scene in high relief;

CASE. NO.

a similar subject on the cover, which is surmounted by a figure of a knight or horseback; the handle formed of intertwined figures of satyrs. The tankard bears the Hall-mark for 1823-24, and was probably then remade from portions of earlier vessels of the first half of the 18th century (?).

The Duke of Cleveland.

- K 416. TOILET SERVICE, silver-gilt; consisting to of twenty-four pieces, with repoussé
439. classical figure subjects on the covers. Date, 1728.

Earl of Stamford and Warrington.

- G 440. TANKARDS (a pair), silver-gilt, with
441. raised and chased scrolls on imbricated ground. Date, 1732. These pieces are by the celebrated London goldsmith, Paul Lemaire.

Earl of Stamford and Warrington.

- F 442. CUP, silver, with cover and two handles. A race cup, inscribed, and dated 1731.

Sir W. W. Wynn, Bart., M.P.

443. EWER, silver, helmet-shaped, with handle in form of a female bust, engraved with the arms of George I. Hall-marks and date letter for 1727.

J. P. Dexter, Esq.

- G 444. CUP and COVER, silver-gilt, double-handled, the handles formed of serpents. Presented to the Corporation of Bath by Frederick Prince of Wales. Date, middle of 18th century.

Corporation of Bath.

445. SALVER, silver-gilt, bearing the arms of Frederick Prince of Wales. Date, middle of 18th century.

Corporation of Bath.

- C 446. BASKET-HILT of a sword, with design representing the royal arms of Scotland, belonging to Charles Edward Stewart, commonly called the Pretender. Date, about 1745.

Earl of Warwick.

- H 447. SALVER, silver, chased. Date, about 1720.

G. Moffatt, Esq., M.P.

- F 448. TANKARD and COVER, silver gilt, surrounded by wreaths of vine branches in repoussé, or beaten and chased work. Hall-mark for 1745. (An engraved inscription recently added.)

G. Moffatt, Esq., M.P.

- K 449. LOCK, and HINGE PLATES, engraved brass. Foliated scroll open-work, mounted on steel. Signed, 'Johannes Wilkes de Birmingham fecit.' Date, about 1760.

South Kensington Museum.

CASE. NO.

- O 450. KEY, wrought steel. The open-work bow is partly formed of two griffins. Date, about 1760.

South Kensington Museum.

451. KEY OF OFFICE, gilt, bearing on the bow the cipher P.W. The official key, used by the chamberlain attached to the household of Caroline Princess of Wales, afterwards the Queen of George II.

Lord Henniker.

JEWELLERY, ETC.

452. RING, gold, set with various coloured stones. 18th century.

R. H. Soden Smith, Esq.

453. RINGS (six), gold, set with diamonds, to rubies, and other precious stones.

458. 18th century.

South Kensington Museum.

459. RING, gold; a wedding ring, with posy or motto, 'Let us share in joy and care.' 18th century.

South Kensington Museum.

460. RING, black enamel; a mourning ring, ribbon-shaped, with inscribed name and date 1774.

South Kensington Museum.

461. RING, white enamel; a mourning ring, ribbon-shaped, with inscribed name and date 1756.

South Kensington Museum.

WATCHES.

462. WATCH, in rock-crystal facet-cut case. Maker, Charles Ray, London. Date, 1720.

South Kensington Museum.

463. WATCH, silver; outer case of tortoise-shell, with silver piqué work. Early part of 18th century.

South Kensington Museum.

464. WATCH CASE; black shagreen, with gold piqué work. 18th century.

South Kensington Museum.

MINIATURE PORTRAITS.

465. MINIATURE PORTRAIT of Joseph Addison, in enamel, by Christian F. Zincke; dated 1715.

Earl Dartrey.

466. MINIATURE PORTRAIT of Lady Mary Wortley Montagu, in enamel, by Christian F. Zincke (1684-1767).

Miss Fraser.

467. MINIATURE PORTRAIT of Margaret Lucas, Duchess of Newcastle, by Christian F. Zincke (1684-1767).

Miss Webb.

CASE. NO.

- O 468. MINIATURE PORTRAIT of Abraham Cowley, the poet, when young, by Christian F. Zincke (1684-1767).
R. S. Holford, Esq., M.P.

469. MINIATURE PORTRAIT of John Churchill, first Duke of Marlborough, by Christian F. Zincke (1684-1767).
Earl Spencer.

470. MINIATURE PORTRAIT of Sarah Jennings, wife of John, first Duke of Marlborough, by Christian F. Zincke (1684-1767).
Earl Spencer.

471. MINIATURE PORTRAIT of Sarah Jennings, wife of John, first Duke of Marlborough. Date, about 1700.
Alexander Barker, Esq.

472. MINIATURE PORTRAIT of Sarah Malcolm, executed for murder, by Nathaniel Hone; signed N. H. 1750.
Sir Dudley Coutts Marjoribanks, Bart., M.P.

STONEWARE.

- S 473. MUG, Fulham stoneware, with numerous ornaments in relief; in the front is a copy of Hogarth's 'Midnight Conversation.' Height, 6 in.
C. W. Reynolds, Esq.

PRINTING.

- D 474. BOOK. Voltaire's *Henriade*. London, 1728. 4to.
The Trustees of the British Museum.

475. BOOK. Holy Bible. Vol. 1. Oxford. Baskett, 1747. 4to.
The Trustees of the British Museum.

476. BOOK. Richardson's *Clarissa Harlowe*. Vol. 1. 1st edit. London, 1748. 8vo.
The Trustees of the British Museum.

477. BOOK. Hume, History of Great Britain. Vol. 1. 1st edit. Edinburgh, 1754. 4to.
The Trustees of the British Museum.

ENGRAVING.

(See List of Engravings lent by the Trustees of the British Museum, under the Tenth Epoch.)

LACE, ETC.

(See List under the Tenth Epoch.)

TENTH EPOCH.

The Reign of George III. down to 1800.

METAL WORK, INCLUDING PLATE, ETC.

CASE. NO.

- N 478. EWER, silver gilt, antique classical design, supported by groups of ma-

CASE. NO.

rine figures, with Bacchanalian procession round the body; the handles formed of figures of naiads. Date, 1782.

Her Majesty the Queen.

- N 479. SALVER, silver gilt; in the centre a group of Venus rising from the sea, figures of Neptune, Tritons, &c., round the border. Date, 1782.

Her Majesty the Queen.

480. CUP and COVER, silver gilt; with shell work, and serpent handles; a figure of the infant Bacchus on the cover. Date about 1765.

Her Majesty the Queen.

481. CUP, carved ivory, representing the birth of Venus; the mounting of silver-gilt; the cover with shell pyramid and diaper ornaments of gold; the carving of the 16th century. Date of present mounting, 1785.

Her Majesty the Queen.

482. TUREEN, COVER and LINING; silver gilt, embossed and chased; the Prince of Wales' feathers surmounting the cover. Date, 1773.

Her Majesty the Queen.

483. TUREEN, COVER and LINING; silver gilt, embossed and chased; the Prince of Wales' feathers surmounting the cover. Date, 1773.

Her Majesty the Queen.

484. TUREEN, COVER and LINING; silver gilt, leafage and scroll handles and feet, cauliflower button, arms and supporters of George III. in relief on sides. Date, 1761.

Her Majesty the Queen.

485. JAR, silver gilt; with perforated cover, (for *pot pourri*), richly embossed with flowers, masks, &c. Date, 1789.

Her Majesty the Queen.

486. PORRINGER, with cover and plate, and two spoons, silver gilt; the cover surmounted by Prince of Wales' feathers. Date, 1762.

Her Majesty the Queen.

487. SALT-CELLARS, or PICKLE-STANDS (a pair), silver gilt, each in the form of a conch shell, supported by two winged dragons. Date, latter half of 18th century.

Her Majesty the Queen.

489. SALT-CELLARS (a pair), silver gilt, each in the form of a pearl oyster, supported by young Tritons. Date, latter half of 18th century.

Her Majesty the Queen.

491. ELEPHANT, silver-gilt, with figures of an Indian god, and a driver in Ori-

CASE. NO.

ental costume. Date, latter part of 18th century.

Her Majesty the Queen.

- N 492. VASE, silver gilt; classical shape, on plain foot, vine-stem handles, the body ornamented with figures.

Her Majesty the Queen.

493. VASE; classical shape, silver, one-half gilt; with subjects in relief, emblematic of the Gold and Silver Ages; designed by Flaxman.

Her Majesty the Queen.

494. DESSERT PLATES (two), silver gilt,
495. rich vintage border.

Her Majesty the Queen.

- G 496. CUP and COVER, silver-gilt (a racing cup); the handles formed of figures of foxes. Inscribed Richmond, 1760.

The Duke of Cleveland.

497. CUP and COVER, silver-gilt (a racing cup); the cover surmounted by a statuette of a mountebank. Inscribed Richmond, 1761.

The Duke of Cleveland.

498. URN, silver, antique classical form, embossed with wreaths of foliage. Hall-marks and date letter for 1778.

R. Dicker, Esq.

499. CADDIES (set of three), with covers,
to silver, embossed with scroll orna-
501. ments, and with pastoral groups on the side. Hall-marks and date letter for 1765.

Mrs. Wilkin.

502. CLARET JUG, silver, antique classical form, embossed with wreaths of foliage. Hall-marks and date letter for 1775.

J. James, Esq.

503. COFFEE-POT, silver, scroll and foliage pattern. Hall-marks and date letter for 1762.

Joseph Bond, Esq.

504. EPERGNE, or CENTRE PIECE, silver, with branches supporting baskets and small saucers. Hall-marks and date letter for 1774.

R. Rose, Esq.

- F 505. TANKARD and COVER, silver gilt, covered with flowers, foliage, scroll work, &c. in repoussé or beaten work, and chased. Hall-mark for 1792.

G. Moffatt, Esq., M.P.

- G 506. CASTORS and COVERS (set of three),
to silver. Second half of 18th century.
508.

Messrs. Hancock.

509. VASE, with cover and two handles, silver; oviform, with raised foliage, &c. Date, about 1800.

Messrs. Hancock.

CASE. NO.

- F 510. SUGAR-BASIN, and two TEA-CADDIES,
to with covers, silver gilt, embossed
512. with foliage, &c.; the bases of open work. Hall-marks and letter for 1760.

A. Barker, Esq.

- O 513. BUTTONS, LINKS, &c. (tray of 14 specimens); ornamented steel work, manufactured by John Worralow, of Wolverhampton. Date, 1780-90.

George Wallis, Esq.

JEWELLERY, ETC.—WATCHES.

514. WATCH, gold, chased and pierced; a cipher and coronet set with diamonds on the back, and a châtelaïne attached, bearing various objects. Date, second half of 18th century.

Lord Chesham.

515. WATCH, gold, set with seed pearls, and enamelled with flowers, &c. Presented by Lord Macartney to the Emperor of China, and taken at the sack of the Emperor's Palace at Peking. Date, about 1790.

Lieut.-Colonel H. Hope Crealock.

516. WATCH, gold, enamelled; a group of children on the back; with enamelled key. Presented by Lord Macartney to the Emperor of China, and taken at the sack of the Emperor's Palace at Peking. Date, about 1790.

Lieut.-Colonel H. Hope Crealock.

517. WATCH and PEDOMETER, gold, in an enamelled and chased case, by Ralph Gout, London. Date, latter part of 18th century.

South Kensington Museum.

518. WATCH, gold, gold face; maker's name, 'Rayner, London;' with châtelaïne attached, bearing a compass and a watch-key. Date, about 1780.

South Kensington Museum.

519. WATCH, gold; in chased and embossed outer case, with pieces of rose-coloured glass inserted; chased gold dial. Date, 18th century.

South Kensington Museum.

SCULPTURE.

- S 520. MEDALLION, in high relief, terra-cotta, in gilt frame; a bust of Flaxman, executed by the artist himself. Dated 1778.

South Kensington Museum.

ENAMEL.

521. CANISTERS (a pair), Battersea enamel,
522. rose-coloured ground; with landscapes in medallions.

H. G. Bohn, Esq.

CASE. NO.

MINIATURE PORTRAITS.

- O 523. MINIATURE PORTRAIT of William Meyer, in his tenth year, by Jeremiah Meyer, R.A.; signed at the back, and dated 1788.

William Meyer, Esq.

524. MINIATURE PORTRAIT of Mrs. Robinson, the actress, by Jeremiah Meyer, R.A. (1728-1789).

William Meyer, Esq.

525. MINIATURE PORTRAIT of William Hayley, the poet, by Jeremiah Meyer, R.A.; signed at the back, and dated 1774.

William Meyer, Esq.

526. MINIATURE PORTRAIT of a young girl, by Jeremiah Meyer, R.A. (1728-1789).

William Meyer, Esq.

527. MINIATURE PORTRAIT of Robert Hunter, a Scotch advocate, when a boy, by James Nixon, A.R.A. (1751-1812).

The Misses Robertson Macdonald.

528. MINIATURE PORTRAIT of Caroline Treby Ouvry, wife of Sir William Molesworth, by James Nixon, A.R.A. (1751-1812).

Mrs. Ford.

529. MINIATURE PORTRAIT of Lady Georgiana Spencer, wife of William, fifth Duke of Devonshire, by Ozias Humphrey; dated 1783.

Earl Spencer.

530. MINIATURE PORTRAIT of Dame Grace Duckett, by Ozias Humphrey; dated 1780.

Sir George Duckett, Bart.

531. MINIATURE PORTRAIT of Charlotte, Duchess of Richmond, by Richard Cosway, R.A. (1741-1821).

Duke of Richmond.

532. MINIATURE PORTRAIT of Miss Gunning (afterwards Mrs. Ross) by Richard Cosway, R.A.; dated 1795.

Lady Mary Ross.

533. MINIATURE PORTRAIT of Maria, Countess Waldegrave, afterwards Duchess of Gloucester, by Richard Cosway, R.A. (1741-1821); in an ormolu frame set with coloured stones.

Captain L. Seymour Dawson Damer, M.P.

534. MINIATURE PORTRAIT of Mrs. Fitzherbert, privately married, in 1785, to George Prince of Wales, by Richard Cosway, R.A. (1741-1821). A lock of her hair surrounds the miniature.

Captain L. Seymour Dawson Damer, M.P.

CASE. NO.

- O 535. MINIATURE PORTRAIT of George Augustus Frederick, Prince of Wales, afterwards King George IV., by Richard Cosway, R.A. (1741-1821). A lock of the Prince's hair surrounds the miniature.

Captain L. Seymour Dawson Damer, M.P.

536. MINIATURE PORTRAIT of Lady Horatia Seymour, by Richard Cosway, R.A. (1741-1821); in a silver frame.

Captain L. Seymour Dawson Damer, M.P.

537. MINIATURE PORTRAIT of an officer, by Richard Cosway, R.A. (1741-1821).

Lord Chesham.

538. MINIATURE PORTRAIT of a lady, by Samuel Shelley; date, about 1780.

Samuel Addington, Esq.

539. MINIATURE PORTRAITS of two girls, one playing on a spinet, by Samuel Shelley; date, about 1780.

Miss Webb.

540. MINIATURE PORTRAIT of Lady Bernard, by Samuel Shelley; date, about 1780.

Earl of Gosford.

541. MINIATURE PORTRAIT of Lady Frances Bernard, by Samuel Shelley; date, about 1780.

Earl of Gosford.

542. MINIATURE PORTRAIT of Sophia Streatfeild, a friend of Dr. Johnson, by John Smart (1741-1811).

Captain Streatfeild.

543. MINIATURE PORTRAIT of Mrs. Gray, by Archibald Skirving; dated, 1798.

Mrs. Lawrence.

544. MINIATURE PORTRAIT of Mrs. Hall, by Andrew Plimer; date, about 1790.

Frederick Tayler, Esq.

545. MINIATURE PORTRAIT of Miss Joanna Plimer, by Andrew Plimer; date, about 1790.

Mrs. Dacres.

FLOWER PAINTING.

546. FLOWER PAINTING. One hundred and forty-one vignettes of flowers painted by Miss Lawrence, afterwards Mrs. Kerslake, illustrating a copy of the 'Guirlande de Julie,' printed on vellum, and dated, Paris, 1784.

Mrs. Bury Palliser.

EARTHENWARE, ETC., INCLUDING PORCELAIN.

CHELSEA PORCELAIN.

- R 547. VASES (set of seven), Chelsea porcelain, to claret ground; painted on one side
553. with figure subjects representing the

CASE, NO.

loves of the gods, on the other with flowers, birds, &c.; open work tops and covers.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

- R 554. CUPS (a pair), Chelsea porcelain, gold
555. ground; with highly finished paintings of birds and fruit.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

556. CUPS (a pair), Chelsea porcelain, rose-
557. coloured ground, with birds and festoons in gold.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

558. TOILET-BOX, and cover, Chelsea porcelain, in the shape of a fan; containing five small boxes with covers, *gros bleu* ground, painted with figures in the Watteau style; and two round boxes *gros bleu* ground, painted with flowers. In the original green shagreen case bound with gilt metal scrolls.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

559. VASE, Chelsea porcelain, octagonal, *gros bleu* ground, painted with birds.
Sir Dudley Coutts Marjoribanks, Bart., M.P.

560. VASES (a set of three), with covers, to Chelsea porcelain, *gros bleu* ground,
562. with medallions of birds, flowers, &c. painted on gold. The covers surmounted by flowers in natural colours.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

563. BOWL or ECUELLE, cover and stand, Chelsea porcelain, *gros bleu* ground, richly gilt, with medallions containing groups of figures in Chinese costume.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

564. BOWL or ECUELLE, cover and stand, Chelsea porcelain, *gros bleu* ground, richly gilt, with medallions containing groups of figures in the Watteau style.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

565. BOWL or ECUELLE, cover and stand, Chelsea porcelain, *gros bleu* ground, richly gilt, with medallions containing groups of figures in the Watteau style.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

566. TOILET BOXES, with covers (a pair),
567. Chelsea porcelain, each containing three closely-fitting boxes and covers,

CASE. NO.

gros bleu ground with birds and foliage in gold.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

- R 568. VASES (a pair), Chelsea porcelain, *gros bleu*, Oriental bottle form with wide mouths, the neck of each encircled with a dragon.

Sir Dudley Coutts Marjoribanks, Bart., M.P.

570. FIGURES of Children (four), Chelsea to porcelain; emblematic of the seasons.
573. *Seymour Haden, Esq., M.D.*

574. CUP and SAUCER, Chelsea porcelain, *gros bleu* ground, with medallions of birds.

Henry G. Bohn, Esq.

575. VASE, Chelsea porcelain, *gros bleu* ground, gold borders, painted with medallions of Cupids.

The Earl of Zetland.

576. VASES (a pair), Chelsea porcelain, claret-
577. coloured ground, with white and gold borders. Height, 7½ in.

The Rev. Montague Taylor.

578. VASE, Chelsea porcelain, painted with Chinese figures on gold, a background of leaves and flowers, scroll handles of ruby and gold.

R. C. Naylor, Esq.

579. VASES (a pair), Chelsea porcelain,
580. painted with flowers on white, claret-coloured borders.

R. C. Naylor, Esq.

581. SCENT-BOTTLE, Chelsea porcelain, formed of a group of figures.
South Kensington Museum.

582. SCENT-BOTTLE, Chelsea porcelain, formed of a group of figures.
South Kensington Museum.

583. SCENT-BOTTLE, Chelsea porcelain, figure of a shepherdess.
South Kensington Museum.

584. SCENT-BOTTLE, Chelsea porcelain, formed of a group of figures.
South Kensington Museum.

585. DISHES (two), Chelsea porcelain;
586. crimson borders, the centres painted with birds and flowers.

South Kensington Museum.

587. ETUI, or CASE, Chelsea porcelain, with design of leaves and flowers.
South Kensington Museum.

588. ETUI, or CASE, Chelsea porcelain, in the form of an Ionic column, with two squirrels on the top.

South Kensington Museum.

589. BOWL, COVER, and STAND, Chelsea porcelain, *gros bleu* ground, with

CASE. NO.

compartments painted with birds and flowers on white.

Joseph Bond, Esq.

- R 590. CUP and SAUCER, Chelsea porcelain, claret-coloured ground, painted with white medallions.

J. Rainey, Esq.

591. PLATE, Chelsea porcelain, rose border, gilt, a bird in the centre.

H. G. Bohn, Esq.

592. TEAPOT, Chelsea porcelain, *gros bleu* and white ground in alternate stripes, painted with birds and flowers.

South Kensington Museum.

DERBY PORCELAIN.

593. PLATE, Crown-Derby porcelain, Oriental pattern.

South Kensington Museum.

594. FIGURES (a pair), Crown-Derby biscuit porcelain, a youth and girl.

Henry Willett, Esq.

596. DISH, Chelsea-Derby porcelain, painted with wreaths of flowers, *gros bleu* borders round edge and centre.

F. R. Ellis, Esq.

597. CUP (two-handled), with cover and stand. Crown-Derby porcelain.

F. R. Ellis, Esq.

598. PLATE, Derby porcelain, with flowers in purple *camaieu*.

South Kensington Museum.

LEEDS WARE.

- S 599. BOWL, COVER, and STAND, Leeds ware, basket pattern, sprinkled with flowers.

Hugh W. Diamond, Esq., M.D.

LIVERPOOL PORCELAIN.

- R 600. MUG, Liverpool printed porcelain.

Hugh W. Diamond, Esq., M.D.

PINXTON PORCELAIN.

- S 601. CUSTARD CUP and COVER, Pinxton porcelain, painted with flowers.

Hugh W. Diamond, Esq., M.D.

PLYMOUTH PORCELAIN.

- R 602. SALT-CELLARS (two), Plymouth porcelain, in the form of escallop-shells, resting on a group of small shells. 18th century.

South Kensington Museum.

WEDGWOOD WARE.

- S 604. VASE; Wedgwood's copy of the Barberini or Portland Vase, white figures

CASE. NO.

on black ground; from the original in the British Museum.

S. Addington, Esq.

- S 605. TABLET, Wedgwood's pale green jasper ware, with white figures in low relief.

The Right Hon. W. E. Gladstone, M.P.

606. VASE and COVER, Wedgwood's brown marbled ware, the cover perforated for cut flowers.

The Right Hon. W. E. Gladstone, M.P.

607. VASE and COVER, Wedgwood's marbled ware.

The Right Hon. W. E. Gladstone, M.P.

608. VASE and COVER, Wedgwood's marbled ware, with goats' head handles.

The Right Hon. W. E. Gladstone, M.P.

609. JARDINIÈRE, Wedgwood's jasper ware, chocolate ground, figures, &c., in white.

H. Willett, Esq.

610. PEDESTAL, Wedgwood's jasper ware, circular, olive ground, frieze of children playing; after Flaxman.

South Kensington Museum.

611. TEACANISTER, Wedgwood's jasper ware, oviform, lilac ground, white ornament.

South Kensington Museum.

612. CUP and SAUCER, Wedgwood's jasper ware, sage colour and light purple.

South Kensington Museum.

613. CUP and SAUCER, Wedgwood's jasper ware, with medallion of Sagittarius.

South Kensington Museum.

614. CREAM JUG, Wedgwood's jasper ware, with medallion of Cancer.

South Kensington Museum.

615. SUGAR BASIN, Wedgwood's jasper ware, with medallion of Scorpio.

South Kensington Museum.

616. BOWL, Wedgwood's black Egyptian ware, with frieze of dancing figures in relief.

South Kensington Museum.

617. VASE, Wedgwood's jasper ware, two handles, on square plinth.

South Kensington Museum.

618. SAUCER, Wedgwood's jasper ware, olive ground, festoons hanging from rams' heads in white.

South Kensington Museum.

619. SAUCER, Wedgwood's jasper ware, olive ground, small medallions in white.

South Kensington Museum.

620. VASE, Wedgwood's jasper ware, oviform, two-handled, lilac ground, cameo figures in white.

South Kensington Museum.

CASE. NO.

S 621. VASE, Wedgwood's jasper ware, oviform, with upright handles, blue ground, frieze of classical figures.
South Kensington Museum.

622. BUTTONS (set of 12), Wedgwood's blue jasper ware, with mythologic subjects in white, set in faceted steel.
South Kensington Museum.

623. MEDALLION, Wedgwood's terra-cotta, elliptic; portrait of Sir W. Hamilton, Britannic Envoy to the Court of Naples; modelled by Flaxman.
South Kensington Museum.

624. VASE and COVER, two-handled, Wedgwood's black jasper ware, with relief ornaments of a concert by Cupids, musical books, &c.
South Kensington Museum.

625. BUST, Wedgwood's black jasper ware, of L. Annaeus Seneca, the Roman philosopher.
South Kensington Museum.

626. BUTTER BOATS (a pair), Wedgwood's
627. Queen's ware, printed pattern.

Hugh W. Diamond, Esq., M.D.

628. CUP and SAUCER, Wedgwood's black ware, inlaid with metal.

Hugh W. Diamond, Esq., M.D.

629. PLAQUE, Wedgwood's jasper ware, light blue ground, classical figures in white. In gilt frame.

Hugh W. Diamond, Esq., M.D.

630. VASE, in form of a nautilus shell, Wedgwood ware, with iridescent glaze.

Hugh W. Diamond, Esq., M.D.

631. CUP and SAUCER, Turner's imitation of Wedgwood's jasper ware, pale blue, with classical groups in white.
The Right Hon. W. E. Gladstone, M.P.

WORCESTER PORCELAIN.

R 632. DISH, Worcester porcelain, painted with flowers. Second half of 18th century.

Sir T. W. Holburne, Bart.

633. CUP and SAUCER, Worcester porcelain, painted in imitation of Oriental. Second half of 18th century.

Sir T. W. Holburne, Bart.

634. PLATES (two), Worcester porcelain, blue
635. ground, painted medallions of birds on white.

Sir T. W. Holburne, Bart.

636. VASE and COVER, Worcester porcelain, blue scale pattern, with white medallions of flowers.

Lady Dorothy Nevill.

637. DISH, Worcester porcelain, dark-blue ground, painted with birds and insects on white.

Henry Willett, Esq.

CASE. NO.

S 638. VASES and COVERS (set of three), Worcester porcelain, hexagonal, painted
640. with birds, deep blue borders.

Henry Willett, Esq.

R 641. MUG, Worcester porcelain, printed with a portrait of Frederick the Great, King of Prussia.

Hugh W. Diamond, Esq., M.D.

642. CUP and SAUCER, Worcester porcelain, with groups in transfer printing

Hugh W. Diamond, Esq., M.D.

PRINTING.

D 643. BOOK. Robert Burn's Poems. 1st edition. Kilmarnock, 1786. 8vo.

The Trustees of the British Museum.

644. BOOK. Boydell's History of the River Thames. Vol. 1. London, 1794. Fol.
The Trustees of the British Museum.

645. BOOK. Milton's Paradise Lost. London: Printed for Richter by Spilsbury, 1794. 4to.

The Trustees of the British Museum.

ENGRAVINGS (ON SCREEN).

[A selection in illustration of the Art of Engraving in England during the 18th century, lent by the Trustees of the British Museum.]

*** Several of these Engravings strictly belong to the Ninth Epoch, but it has been judged convenient to give one list only.

ETCHING.

BLAKE, WILLIAM (1757-1827).

1. A selection of fifteen subjects from the 'Songs of Innocence.'

LINE ENGRAVING.

HOGARTH, WILLIAM (1697-1764).

The Rake's Progress.

2. I. The Inheritance.
3. II. The Rake's Levee.
4. III. The Orgie.
5. IV. The Arrest.
6. V. The Marriage.
7. VI. The Gaming House.
8. VII. The Fleet Prison.
9. VIII. Bedlam.

SULLIVAN, LUKE (1705-1762).

10. The March of the Guards to Finchley; after Hogarth.

VIVARES, FRANCIS (1709-1780).

11. Landscape, the Sacrifice to Apollo; after Claude Lorraine.

BROWNE, JOHN (1719-1790).

12. Landscape, the Baptism of the Eunuch.

STRANGE, SIR ROBERT (1721-1792).

13. Charles I. in his Coronation Robes; after Van Dyck.

14. Charles I. with the Duke of Hamilton; after Van Dyck.
15. Henrietta Maria and her Children; after Van Dyck.
- BARTOLOZZI, FRANCESCO (1725-1813).
16. Clytie; after Annibale Caracci.
- RYLAND, WILLIAM WYNNE (1732-1783).
17. George III. in his Coronation Robes; after Allan Ramsay.
- WOOLLETT, WILLIAM (1735-1785).
18. Niobe; after Richard Wilson.
19. Phaeton; after Richard Wilson.
20. The Spanish Pointer; after George Stubbs.
21. The Battle of La Hogue; after Benjamin West.
- SHARP, WILLIAM (1749-1824).
22. The Doctors of the Church; after Guido Reni.
23. Holy Family; after Sir Joshua Reynolds.
24. John Hunter, the Anatomist; after Sir Joshua Reynolds.
- CALDWELL, JAMES (fl. about 1780).
25. Mrs. Siddons as the Grecian Daughter; after William Hamilton.
- HALL, JOHN (1739-1800).
26. Penn's Treaty with the Indians; after Benjamin West.
- PARKER JAMES (1750-1805).
27. An Illustration to the *Guardian*; after Robert Smirke.
- MIDDIMAN, SAMUEL (1746-1818).
28. Moss Dale Falls; after J. M. W. Turner.
- FITTLER, JAMES (1758-1825?).
29. Benjamin West, P.R.A.; after George Henry Harlow.
- LANDSEER, JOHN (1769-1852).
30. Sleeping Lion; from his own design.
31. Vignette, Head of Holofernes; after Loutherbourg.
- SCHIAVONETTI, LOUIS (1765-1810).
32. The Dead Christ; after Van Dyck.
- HEATH, JAMES (1756-1834).
33. The Riot in Broad-street; after Francis Wheatley.
- SHERWIN, C. & J. K. (1751-1790).
34. The Death of Lord Robert Manners; after Thomas Stothard.
- SCOTT, JOHN (1774-1828).
35. A Field Spaniel; after Reinagle.
- 35A. The Cottage; after Thomas Gainsborough.
- STIPLE ENGRAVING.
- BARTOLOZZI, FRANCESCO (1725-1813).
36. Lord Mansfield; after Sir Joshua Reynolds.
37. Designs for admission tickets, &c.; after G. B. Cipriani and B. West.
- STRUTT, JOSEPH (1749-1802).
38. The Discovery; after Thomas Stothard.
- CARDON, ANTHONY (1772-1813).
39. Garrick, between Tragedy and Comedy, after Sir Joshua Reynolds.
- COLLYER, JOSEPH (1748-1827).
40. Venus; after Sir Joshua Reynolds.
- OGBORNE, JOHN (1725-1795).
41. Nell Gwynne; after Sir Peter Lely.
- PARKER, JAMES (1750-1805).
42. The Pulse; after James Northcote.
- HOWARD, FRANCIS (fl. about 1770).
43. Mrs. Siddons as the Tragic Muse; after Sir Joshua Reynolds.
- WATSON, CAROLINE (1758-1810).
44. Lady Stanhope, after Sir Joshua Reynolds.
- TOMKINS, PELTRO WILLIAM (1760-1840).
45. Amyntor and Theodora; after Thomas Stothard.
- SCHIAVONETTI, LEWIS (1765-1810).
46. Puck; after Sir Joshua Reynolds.
- EARLOM, RICHARD (1740-1822).
47. Lord Heathfield; after Sir Joshua Reynolds.
- MEZZOTINT ENGRAVING.
- EARLOM, RICHARD (1740-1822).
48. The Royal Academy; after Johann Zoffany.
- FISHER, EDWARD (fl. about 1770).
49. The Marchioness of Tavistock; after Sir Joshua Reynolds.
- MARCHI, GUISEPPE (fl. about 1780).
50. Coleman, the dramatic writer; after Sir Joshua Reynolds.
- GREEN, VALENTINE (1739-1813).
51. The Duchess of Devonshire; after Sir Joshua Reynolds.
- GROZER, JAMES (1755-1800).
52. Lady Duncannon; after Sir Joshua Reynolds.
- CORBUTT, CHARLES (fl. about 1760).
53. Mrs. Lascelles; after Sir Joshua Reynolds.
- JONES, JOHN (1740-1790).
54. Charles James Fox; after Sir Joshua Reynolds.
- HODGES, CHARLES HOWARD (1774-1837).
55. Sir Abraham Hume; after Sir Joshua Reynolds.
- MURPHY, JOHN.
56. Charles, Lord Hawkesbury; after G. Romney.
- BLACKMORE, JOHN (fl. about 1770).
57. Foote, the comedian; after Sir Joshua Reynolds.
- PHILLIPS, CHARLES (fl. about 1765).
58. Miss Hone; after Nathaniel Hone.
- HOWARD, FRANCIS (fl. about 1770).
59. Master Bunbury; after Sir Joshua Reynolds.

- WARD, WILLIAM (fl. about 1790).
60. Travellers; after George Morland.
- WARD, JAMES (fl. about 1790).
61. The Angry Father; after John Opie.
- SMITH, JOHN RAPHAEL (1752-1812).
62. Mrs. Musters; after Sir Joshua Reynolds.
- FABER, JOHN (1692-1756).
63. Mrs. Woffington; after E. Haytley.
- MACARDELL, JAMES (1710-1765).
64. George, Duke of Buckingham, and his Brother, Lord Stuart; after Van Dyck.
- HOUSTON, RICHARD (fl. about 1780).
65. Mrs. Hartly; after H. D. Hamilton.
- FRYE, THOMAS (1710-1762).
66. His own portrait.
- PETHER, WILLIAM (1731-1795).
67. The three brothers Smith, painters, of Chichester.
- WATSON, JAMES (1740-1790).
68. The Duchess of Manchester; after Sir Joshua Reynolds.
- WATSON, THOMAS (1748-1781).
69. Mrs. Abington; after Sir Joshua Reynolds.
- SPILSBURY, INIGO (1733-1795).
70. Mrs. Richards; after Gainsborough.
- DIXON, JOHN (fl. about 1775).
71. The Tigress; after Stubbs.
- DICKINSON, WILLIAM (1746-1802?).
72. Mrs. Pelham; after Sir Joshua Reynolds.
- DOUGHTY, WILLIAM (fl. about 1770).
73. Dr. Samuel Johnson; after Sir Joshua Reynolds.
- DUNKARTON, ROBERT (fl. about 1780).
74. Mrs. Horneck; after Sir Joshua Reynolds.
- REYNOLDS, SAMUEL W. (1774-1835).
75. The Falconer; after James Northcote.

WOOD ENGRAVING.

- BEWICK, THOMAS (1753-1828).
76. Six Sheets of Vignettes and Illustrations to Æsop's Fables.

LACE AND NEEDLEWORK.

English, 17th and 18th centuries, shown in Pillar Case P.

*** These examples illustrate the 8th, 9th, and 10th periods.

FRAME

1. SAMPLER; unbleached linen, with 'point coupé,' and other patterns, dated 1618.

LACE; scallops of 'point coupé,' from a design by Vinciolo, a Venetian artist, made in 1589.

Mrs. Hailstone.

2. SAMPLER; unbleached linen, numerous patterns and alphabets worked in coloured silks and flax. Dated 1669.

FRAME

INFANT'S SHIRT, with 'hollie work' on the shoulders. Date, 1700.

SAMPLER; a portion, 'point coupé' work of very fine patterns. Date, 1669.
Mrs. Hailstone.

3. WAISTCOAT; very fine linen, embroidered with needlework. Date, 18th century.

Mrs. Hailstone.

4. TAPE and POINT LACE. Date, about 1700.

Mrs. Hailstone.

5. NEEDLEWORK ON MUSLIN; three specimens. Date, early 18th century.

STOMACHER, linen embroidered in coloured silks. Date, 18th century.

Mrs. Hailstone.

6. LACE; specimen of cushion made ground, to which patterns also made on the cushion are afterwards sewn ('appliqué'). Date, early 18th century.

LACE; edges of veils (two); length of lace; and a 'berthe.' Northamptonshire cushion lace. Date, 18th century.

LACE; a length of Buckinghamshire cushion lace. Date, 1760.

LACE; a length of old English cushion lace. Date, early 18th century.

LACE; a length of old English cushion lace, often called 'Brussels point.' Date, early 18th century.

Mrs. Hailstone.

7. LACE, white; twelve specimens of the earliest known machine lace made on the stocking frame by the introduction of the barrel organ system as applied to the tuck presser about 1764. The outlines figured by handwork.

Nottingham School of Art.

8. LACE; two specimens, one white, one black, made on the figured joining machine, an improvement on the stocking frame, about 1771. The outlines figured by handwork.

Nottingham School of Art.

9. LACE; black, eighteen specimens of joining net, so called from certain parts being left plain so as to form a joining or pattern. Invented by Robert Frost, about 1773.

Nottingham School of Art.

10. LACE; fourteen specimens, thirteen white, one black, showing an improvement on the barrel organ system. (Frame No. 7.) Date, about 1780.

Nottingham School of Art.

FRAME

11. LACE; thirty-one specimens of black 'double pressed point lace,' made by the introduction of a point bar to the stocking frame, after the system patented in 1753 by Jedediah Strutt, of Derby. Date, about 1790.

Nottingham School of Art.

12. LACE; twenty-one specimens of black 'early warp,' figured by hand, made by a machine invented by Crane, of Edmonton, about 1775, and which, after various improvements, was by 1784 generally used by lace makers.

Nottingham School of Art.

13. LACE; eight specimens of black point joining lace. Date, about 1780.

Nottingham School of Art.

14. LACE; eight specimens of white machine point, made by the stocking frame, and figured by hand. Date, from 1790 to 1808.

Nottingham School of Art.

PRINTED FABRICS.

English, 18th century; shown in Pillar Case P.

- 15 to 33. SPECIMENS (forty-seven) of printing on textile fabrics, executed at works on the rivers Cray (Kent), and Wandle (Surrey), between the years 1760 and 1790, by Messrs. W. Bedford & Co., predecessors of Messrs. Liddiard & Co., 61 Friday-street, London.

Messrs. W. G. Cooper & Co.,

Successors to Liddiard & Co.

SEALS.

Impressions taken from the Collection of English Seals in the British Museum. Dates, from the 9th to the 17th centuries. Shown in Pillar Case P.

FRAME

34. SEALS of English Corporations, 12th and 13th centuries.

35. SEALS of English Corporations, 14th, 15th, and 16th centuries.

36. SEALS, personal, English, 11th, 12th, and 13th centuries.

37. SEALS, personal, English, 14th century.

38. SEALS, personal, English, 14th and 15th centuries.

39. SEALS, personal, English, 16th and 17th centuries.

40. SEALS of English Bishops, 9th, 11th, 12th, 13th, and 14th centuries.

41. SEALS of English Bishops, 14th, 15th, 16th, and 17th centuries.

42. SEALS of English Abbeys, 10th, 11th, 12th, and 13th centuries.

43. SEALS of English Abbeys, 13th century.

44. SEALS of English Abbeys, 13th century.

45. SEALS of English Abbeys, 14th, 15th, and 16th centuries.

PHOTOGRAPHS OF INDIAN ARCHITECTURE,

Exhibited by the Department of Science and Art.

SELECTED AND ARRANGED BY JAMES FERGUSSON, Esq., F.R.S.

Case 12.

HINDU ARCHITECTURE.

Case No. 12 contains illustrations of the Hindu architecture of Northern India, commencing with the examples of Orissa, on the shores of the Bay of Bengal, and proceeding westward to Dharwar, in the Bombay Presidency. The photographs are selected principally from a work entitled 'The Architecture of Dharwar and Mysore,' published by John Murray, 1866, and from the publications of Majors Dixon and Impey, and that of Mr. Beato; others are from Mr. Fergusson's private collection.

ORISSA.

The great temple at Bobaneswar was finished about the year 657 A.D., and is the oldest temple of its class known to exist in the north of India, as well as one of the largest and best finished.

The temple of Juggernaut, celebrated for its annual festival, was completed in the year 1198 A.D., and is among the latest of its class. Between these two there are at least 100 temples in Orissa of the same kind. These make up the largest and most characteristic group of the Northern Indian style which now exists.

1. The great temple, Bobaneswar
The Lion's Gate of the great temple
2. Tank to the east of the great temple
Group of temples to west of great temple
3. The Annuntu Basa Devi temple
The Mookteswar temple
4. The Pursuram Iswar temple
The Boital temple
5. The great temple of Juggernaut
The Mookteswar temple

BERAR.

Throughout Berar and the Saugur territories there are a great number of small detached temples which have as yet been only imperfectly examined. None of them seem older than the ninth or tenth century, and the series may be considered as ending with the Mahomedan conquest in the thirteenth. Some of them are remarkable for the beauty of their details, but none of those illustrated by the photographs in the case are of great dimension.

6. Temple at Koch Behar
Temple at Deo
Temple at Oomga

SAUGUR.

7. Temple at Pathári
Ruins of Jain temple at Gyaspore
Porch of temple at Pathári
8. Temples at Bhilsa
Archway at Gyaspore

BERAR.

The temple at Boodhgya stands in the enclosure which contains the celebrated tree under whose shadow Buddha received the 'Law.' It was last repaired by the Burmese about the year 1306. Compare it with the view of the Bodhi Temple, Case 15, No. 48.

9. Temple at Boodhgya
Lat at Pathári

ORISSA.

Monolith at Jagepore
Monolith in front of temple of Juggernaut

DELHI.

Three sides of the courtyard of the mosque which the Mahomedans erected at the Kootub on their first taking possession of Delhi (1297) are composed of fragments of Hindu, or rather Jaina, architecture, which have been rearranged so as to suit the purposes of the invaders. As will be seen from the illustrations, the result is singularly picturesque, though, from the mode in which the pillars are used, hardly in the best taste.

10. The Kootub ; exterior of Hindu court
The Kootub ; Hindu court
11. The Kootub ; interior of Hindu court
The Kootub ; Hindu court
12. The Kootub ; interior of Hindu court
The Kootub ; part of the temple-mosque

RAJPOOTANA.

The following twenty-two photographs represent the Northern Hindu style as practised in India at the present day ; all the buildings represented in them having been erected within the limits of the present century, many within the last few years. Some further illustration of the same class will be found in Case 15, Nos. 22 to 26.

13. Temple at Parusnath, Jhalra-Pattun
The great temple, Jhalra-Pattun
14. Tank at Ulwur
Temples and tank, Ulwur
15. Temples and hill fort, Ulwur
A chutree at Rajgurbh
16. The garden palace, Deeg
The garden palace, Deeg
17. The town and palace, Boondee
The palace, Boondee
18. Gate of Shet Lakhmeechund's temple,
Bindrabun
Cenotaph of Rajah Buldeo Singh, Goverdhun
19. Cenotaph of Rajah Sooruj Mull at Goverdhun
Cenotaph of Rajah Sooruj Mull at Goverdhun
20. Cenotaph of Rao Rajah Bukhtowar Singh,
Ulwur
Gateway of the palace, Ambër

RAJPOOTANA.

21. Palace of the Winds at Jeypoor
Palace and citadel, Ambër
22. Inner court of the palace, Ulwur
The Motee Doongree palace, Ulwur

DELHI.

23. Modern Jain temple

RAJPOOTANA.

Temple at Banghur

DHARWAR.

The following thirty-two photographs represent the Northern Hindu style as practised in the Bombay Presidency, from about the tenth century to the present time. Few of the temples are large, but many of them are distinguished by great beauty of detail, and consider-

able elegance of outline. The photographs of Dharwar and Mysore were taken principally by Col. Biggs, R.A., and Dr. Brisbane Neill.

24. Ruined temple, Hooblee
Temple at Gokak
25. Temple at Bunkapoor
Porch of a Jain temple, Belgaum
26. Temple at Purudkul
Porch of a Sivite temple, Moongoor
27. Temple at Lakhmeshwur
Sculptured capital, Kirwuttee
28. Temple at Hurulhully
Details in temple at Hurulhully
29. Jain temple, Lukhoondee
Temple of Someshwur, Hurulhully
30. Temple at Kirwuttee
Temple at Lakhmeshwur
31. Temple at Iwullee
Double temple at Hurulhully
32. Temple at Dumbul
Temples at Purudkul
33. Temple at Iwullee
Temple at Iwullee
34. Temple at Hurpunhully
Group of temples at Bunshunkuree
35. Sculptured memorial stone at Hungul
The palace, Seerhuttee
36. Window of perforated stone, Nursapoor
Window of perforated stone, Nursapoor
37. Doorway in temple at Hungul
Doorway in temple at Hungul
38. Stone with inscription at Huryhur
Sculptured memorial stone, Hungul

MYSORE.

39. Colossal bull at Chamondee
Colossal bull at the French Rocks

The temple of Hullabeed,* in the Mysore Territory, was erected in the thirteenth century, and dedicated to the worship of Siva. It never was completed; the works having been stopped by the Mahomedan invasion in 1310. Notwithstanding this, it is one of the most remarkable temples in India, both as regards the extent of its ornamentation and the beauty of its details.

40. General view of temple
Temple, west front
41. Sculptures in west front of temple
West front of northern vimana
42. North-west front of northern vimana
South-west front of northern vimana
43. Sculptures in southern vimana
Pavilion in centre of east front
44. Sculptures in west front
South-west front of northern vimana
45. Sculptures in west front
Southern door in east front
46. South door and north-east angle
South-east angle

* A general view of the temple is in a frame on the west wall.

47. South-west front of northern vimana
South-west front of southern vimana
48. Ganesha, the god of wisdom
South-west front of northern vimana
49. Catharaswara Pagoda from north-west
Temple of Siva
50. Catharaswara Pagoda from south-west
Temple of Siva from NNE.
51. Temple of Siva
Temple of Siva
52. Southern pavilion
Sanctuary of southern pavilion

The temple at Belloor is about a century older than that at Hullabeed, and even more remarkable for beauty of detail, though much less important as regards size or elaboration.

53. Temple at Belloor
Temple at Belloor; detached building in court
54. Temple at Belloor
Temple at Belloor; detail

AMRITSIR.

All the buildings at Amritsir represented in the following ten photographs owe their existence to the magnificence of the late Raja Runjeet Sing, and show great splendour, but a marked decline in taste from those erected in India proper, either contemporaneously or of an earlier date.

55. Gateway of the Rain, Bagh
Golden gate and entrance to the temple
56. The sacred temple
The Akal Boonga
57. Baba Atal's temple
View through piazza leading to Sikh temple
58. Interior of Sikh temple
Golden gate of Sikh temple
59. Street inside sacred tank area
Baba Atal's temple
60. A map of India, with the names of those places only which are illustrated by the photographs in the cases or on the walls.

Case 15.

HINDU ARCHITECTURE.

Case No. 15. The illustrations commence with the earliest rock-cut examples in Behar (B.C. 200), and are arranged so as to exhibit the peculiarities of the series of the caves of Western India, at Karlee, Elephanta, and Ellora. Ten views are devoted to the architecture of the city of Oudeypore, and the next forty-six to the style of architecture prevailing in the South of India. To complete the series, and as a means of comparison, ten views have been added of Burmese architecture, and ten from the temples of Cambodia.

BEHAR.

The Lomas Rishi is the oldest known cave in India possessing any architectural features. These, as will be observed, are all copied from wooden constructions. The date of the cave is 200 to 250 B.C.

1. Lomas Rishi Cave
Lomas Rishi Cave
Sat Gurba Cave

KARLEE.

The Karlee Cave is the oldest and largest of its class in Western India. It still shows how great the influence of wooden construction was at the period of its excavation (about the Christian era); all the framework of the front, and the ribs of the roof, being still in wood, and only the smallest details represented in stone. The western cave photographs are all by Mr. Hinton.

2. Exterior of cave
Cave; interior of great hall

ELEPHANTA.

The Elephanta Cave, in Bombay Harbour, is one of the best known in India. It was excavated probably in the tenth century of our era, and dedicated to the worship of Siva. As will be observed, it is extremely similar to the Dooma Lena Cave at Ellora (Nos. 14 and 15):

3. Entrance to cave
The Lions' Cave; exterior
4. Interior of cave; nuptials of Siva and Parbutty
Interior of cave
5. Interior of cave; western aisle
Cave; interior from entrance

ELLORA.

The Ellora series of caves is one of the most extensive in India. It commences with a Buddhist group, the Dehrwarra and Viswa Karma—dating from the eighth or ninth century of our era—culminates in the Kailas, a Sivite temple in the Southern Hindu style of the tenth century, and closes with a Jaina group—the Indra

Subha—in the twelfth or thirteenth centuries. The illustrations are arranged as nearly as possible in the order of their dates.

6. The two Chendwassas; exterior
Dehrwarra; exterior
7. Viswa Karma, Chaitya cave; exterior
Viswa Karma; the hall
8. Viswa Karma; sculptures in left gallery
Viswa Karma; sculptures in right gallery
9. Teen Tal; interior of great hall
Teen Tal; exterior
10. Kailas; exterior
Kailas; the great temple
11. Kailas; exterior, obelisk, and muntapa
Kailas; porticos and base of great temple
12. Kailas; exterior of Lanka Cave
Kailas; interior of Lanka Cave
13. Kailas; interior of court of nine Durgas
Kailas; interior of court of nine Durgas
14. Doomar Lena; the colonnade
Doomar Lena; interior
15. Doomar Lena; Siva as Vira Badhira
Doomar Lena; Siva and Parbutty
16. Ravana Ka Kaie; interior
Ravana Ka Kaie; interior
17. Ramwarra; the entrance
Ramwarra; the interior
18. Ramwarra; the Ling Chapel
Das Avatar; interior of great hall
19. Pseudo-structural temple in courtyard of
Indra Subha
Indra Subha; exterior
20. Indra Subha; left gallery
Indra Subha; right gallery
Indra Subha; interior of grand hall
Indra Subha; interior of temple

OUDEYPORE.

The following ten photographs, by Captain Taylor, represent modern building in Oudeypore, and belong properly to the Rajpootana series in Case No. 12, but arrived too late to be inserted there. The two last are cenotaphs erected in rivalry of the Mahomedan tomb-building practice, over the spots where the Ranas or their wives were burnt.

22. Carvings on Juggernaut Raj Temple
Front of Juggernaut Raj Temple
23. Tomb of 'Suggram Sing'
Carvings on a Hindoo temple
24. Hindoo temple
Hindoo temple
25. Tripolio gateway to the Maharana's
palace
Court and garden in the Jugneewaz water
palace
26. Tomb of Ahmeer Sing
View in the royal burial-grounds

PURUDKUL.

The first four views of temples in Purudkul represent buildings in the Southern Hindu style, probably of the thirteenth century; the

last two, the northern and southern style, in juxtaposition. Photographed by Col. Biggs.

27. Great Sivite temple
Great Sivite temple
28. Great Sivite temple
Great Sivite temple
29. Group of temples
Group of temples

BEEJANUGGER.

The porch of the great temple of Vitoba, at Beejanugger, is one of the most remarkable of its class. It is wholly of granite, each of the piers being cut out of a single block. It was erected in the sixteenth century, and never was completed. The car of the god is also of a single stone.

The last five views, 34 to 36, with those of Chamoondce, in Mysore, represent the more modern form of the Southern Hindu style. The photographs of Beejanugger are principally by Dr. Neill.

30. Porch of great temple
Porch of great temple
31. Porch of great temple
Porch of great temple
32. Stone car of god, great temple
Small temple
33. Sculptured wall
Sculptured wall
34. Principal gateway of a temple
Lateral gateway of a temple
35. A small temple
General view of ruins
36. Gateway of a temple

MYSORE.

Gateway of temple of Chamoondce

37. Gateway of a temple
Gateway and car of temple of Chamoondce

BEEJANUGGER.

The first six photographs illustrate the form which Hindu architecture took under the influence of Mahomedan art, and the introduction of the arch as a building expedient, as that had never been employed by the Hindus previously in their own styles. The result, as will be seen, is a style of great picturesqueness, but much less pretty than that which proceeded it.

38. Elephant stables
Interior of great bath
39. Pavilion of palace
Treasury buildings
40. Tower in walls
Wall of Zenana
41. Car of god, Bunshunkuree
Car of god, Seringapatam

MADRAS PRESIDENCY.

These sixteen photographs illustrate the style of Southern India as generally prevalent in the Madras Presidency, from about the tenth century to the present day. The first eight of these are by Mr. Middleton Rayne.

42. Tanjore Pagoda
Great Bull, Tanjore Pagoda
43. Trivalur Temple
Gateway of Seringham Temple
44. Village temple and idol cars
Trichinopoly rock
45. Base of temple, Trivatore
Base of small temple, Tanjore
46. Carved stone pillar in pagoda at Perroor
Carved stone pillar in pagoda at Perroor
Carved stone pillar in pagoda at Perroor
Entrance to the Ulsoor Pagoda, Bangalore
47. Pillars of pagoda, Vellore
Pillars of pagoda, Vellore
Pagoda at Vellore
Side entrance to pagoda at Vellcre

BURMAH.

Ten photographs to illustrate the Buddhist architecture of the Burmese Empire from the time when Pagan was the capital, in the twelfth and thirteenth centuries, till Mandalay was erected, and became the capital about twenty years ago.

48. Bodhi Temple, Pagan
Yenang-Choung, Pagan

49. The Ananda, Pagan
Thapinyu Temple, Pagan
50. Monastery at Amerapura
Monastery at Amerapura
51. Temple at Amerapura
Great temple at Amerapura
52. Modern temple at Mandalay
The king's barge
53. Queen's khioung
The king's head poongyee house
54. Monastery at Mandalay
Monastery at Mandalay
55. The king's palace, Mandalay
A temple at Mandalay

CAMBODIA.*

Ten photographs, by J. Thomson, of the great temples of Oncor and Nakhon Thom, in Cambodia. These were erected in the twelfth and thirteenth centuries, and wholly devoted to serpent worship. The temple of Nakhon Wat is one of the most extensive and magnificent in the East.

56. Part of western gallery, Nakhon Wat
Interior, western gallery, Nakhon Wat
57. An inner gallery of Nakhon Wat
Great western gateway, Nakhon Wat
58. Nakhon Wat; figures in alto-relievo
Nakhon Wat; part of a stone reservoir
59. Nakhon Wat; part of a bas-relief
Nakhon Wat; part of a bas-relief
60. Nakhon Thom; a single tower of 'Preasat Sing Poun'
Nakhon Thom; alto-relievo sculpture

* Two general views of the temple of Nakhon Wat are on the walls in Frame 10.

Case 10.

MAHOMEDAN ARCHITECTURE.

The first twenty-six frames in this case are devoted to the illustration of the Mahomedan architecture of Northern India, commencing with the old mosque at Delhi, erected in the beginning of the thirteenth century, and terminating with the modern buildings of Lucknow. The remaining frames are devoted to the cities of Beejapoor, Ahmedabad, and Mandoo. The photographs are selected principally from a large work 'On the Architecture of Beejapore;' and another on that of 'Ahmedabad,' published by John Murray last year, and from the works of Major Impey and Mr. Beato before alluded to. Others are from Mr. Fergusson's private collection.

DELHI.

The buildings at the Kootub were commenced by Kootub-u-deen-Ibek, the first governor of Delhi (1297), but completed principally by Altumsh, his successor, 1210-1235. They are remarkable for the strange admixture of Hindu details with Mahomedan form. From these early examples the series of illustrations is tolerably consecutive till the decay of art and the fall of the great Mogul dynasty.

1. The Kootub-Minar
2. The Kootub; part of the front of the Mahomedan façade.
The Kootub; north-west corner of the inner enclosure
3. The Kootub; central arch of Mahomedan façade
The façade on the south side of the outer enclosure
4. The Kootub; gateway on south side

- The Kootub; marble tomb and gateway,
south side
5. The Kootub; tomb of Goree Shah
Tomb of Sufter Jung
 6. Tomb of the Emperor Hoomayun
Tomb of the Emperor Hoomayun
 7. The Jumma Musjid
The Jumma Musjid
 8. The Jumma Musjid; general view
The Jumma Musjid from the courtyard

AGRA.

9. The gate of the fort
The Jumma Musjid

SECUNDRA.

10. Mausoleum of Akbar
Gateway of mausoleum of Akbar

AGRA.

11. Tomb of Etimad-Dowlah
Tomb of Etimad-Dowlah
12. The fort; pavilions in the harem court
The great court of the fort
13. Dewan Khas in the fort
Summum Boorj in the fort
14. The Taj Mahal
Dewan Khas in the fort
15. The Taj Mahal from the river
The Taj Mahal from the garden
16. The Taj Mahal; near view from the river
The principal gateway of the Taj
17. The Taj from top of gateway
Gateway of the Taj
18. Mootee Musjid
Akbars Palace in fort

MUTTRA.

19. Jumma Musjid
Jumma Musjid

LUCKNOW.

The buildings represented in the next four-teen photographs were almost all erected within the limits of the present century, and betray the strong influence which European art has exercised in the decaying dynasties of the great Mahomedan empire. Further illustrations of these buildings will be found in Case 16.

20. Tomb of Saadat Ali in the Kaiserbagh
Palace
Small mosque in the Kaiserbagh
21. Mosque in the interior of the Hoseinabad
Emambara
The Shah Mujjuf
22. The Hoseinabad Emambara
Tomb of Asph-ud-Dowlah

23. The Roum-i-Durwaza
Roomi Gate and the Emambara
24. Mosque inside Asph-ud-Dowlah's Emam-
bara
The Farad Buksh Palace, with bridge of
boats
25. Gateway leading into the Kaiserbagh
General view of Hoseinabad from the
Jumma Musjid
26. The Martiniere
The Begum Kotie

BEEJAPPOOR.

The city of Beejapoor, in the Deccan, was founded by Jusuf Khan in 1501, but except the two first buildings, made up of Hindu remains, its architectural development only commenced with Ali Adil Shah, 1557, and closed with the second of the same name, 1660; so that all great buildings are comprised within one century. The Gol Goomuz, or tomb of Mahmood, is probably the most remarkable domical building in the world, the floor space being greater than that of the Pantheon in Rome. The Ibrahim Rôza is one of the most elaborately ornamented specimens of Mahomedan art in India, and the great mosque one of the finest of its class. The architectural drawings which illustrate this set were made by A. Cumming, Esq., C.E.; the picturesque photographs by Col. Biggs, R.A.

27. Ancient mosque in the citadel
Ancient Hindoo college in the citadel
28. Part of the walls of the citadel
Unfinished mausoleum of Ali Adil Shah I.
29. Plans and sections of the Gol Goomuz
The Gol Goomuz; general view
30. Plans and sections of the Gol Goomuz
The Sath Khundi, or Palace of Seven
Stories
31. Plans and sections of the Ibrahim Rôza
Mausoleum of the Ibrahim Rôza
32. Plans and sections of the Ibrahim Rôza
Plans and sections of the Ibrahim Rôza
33. Plans and sections of the Ibrahim Rôza
Mosque of the Ibrahim Rôza
34. Plans and sections of the Mehturee Mahal
The Mehturee Mahal; general view
35. Plans and sections of the Mehturee Mahal
Plans and sections of the Mehturee Mahal
36. Plans and sections of the Jumma Musjid
The Jumma Mosque; from the courtyard
37. Plans and sections of the Jumma Musjid
Plans and sections of the Jumma Musjid
38. Mosque of Yakoot Dabooli
The Jumma Mosque from the north-east
39. Plans and sections of the Ashar Mobarak
The Ashar Mobarak; general view
40. Mausoleum of Begum Sahib
Mausoleum of Kishwur Khan and Huzrut
Shah Ahmed
41. Mosque in the fort
Tombs of saints; names unknown

AHMEDABAD.

The city of Ahmedabad was founded by Ahmed Shah, 1411, and, after little more than 150 years of prosperity, was absorbed into Akbar's Empire, 1583. As all its principal buildings were erected in the latter half of the fifteenth century, and overlap one another, no chronological arrangement of them has been attempted. This is of less importance in this case, as they are characterised by a singular uniformity of style, arising from the employment throughout of Hindu architects to carry out the forms of Mahomedan art. The result of this admixture of styles is an elegance of detail and an originality of forms which render this group perhaps more interesting than any other examples of Saracenic art in India.

42. The Jumma mosque; the centre arch
The Shapoor mosque
43. Seedee Busseer's mosque and tomb
Seedee Busseer's mosque and tomb
44. Meer Aboo Toorab's tomb
Mulik Alum's mosque
45. The queen's mosque in Mirzapoor
Seedee Syeed's mosque; window of perforated marble
46. Hybut Khan's mosque
Hybut Khan's mosque; the porch
Syud Alum's mosque
Mulik Alum's mosque
47. The Jumma mosque; the centre arch
Syud Alum's mosque; the centre arch
The Jumma mosque
The Jumma mosque; part of northern colonnade
48. The Jumma mosque; the central mehrab
The Jumma mosque; pillars in the interior
The Jumma mosque
Ranee Seepree's mosque and tomb
49. Ránee Seepree's mosque, from south
Ránee Seepree; the mosque
The queen's mosque in Mirzapoor; base of northern minaret
The Jumma mosque; niche between the side arches
50. The queen's mosque in Mirzapoor; niche in base of northern minaret
The queen's mosque in Mirzapoor; northern side arch
Seedee Syeed's mosque; window of perforated marble
Seedee Syeed's mosque; window of perforated marble

51. Ránee Seepree; base of tomb
The queen's mosque in Mirzapoor; the adjacent tomb
Tomb of the queens of Ahmed Shah I.
Tomb of Ahmed Shah I.
52. Sirkhej; view from south-west corner of the tank
Sirkhej; view from south-east
Sirkhej; pavilion and tomb of Gunj Buksh
Sirkhej; tomb of Gunj Buksh from north-east
53. Sirkhej; waste weir of the tank
Howz-i-Kootub; tank
Butwa; tombs of Kootub-i-Alum and his son
Syud Oosman's mosque
54. Seedee Busseer's mosque and tomb
Mooháfiz Khan's mosque
Mea Khan Chishtee's mosque
Syud Oosman's mosque; part of north side
55. Mooháfiz Khan's mosque; base of southern minaret
Mooháfiz Khan's mosque; base of northern minaret
Mooháfiz Khan's mosque
Dustoor Khan's mosque; the colonnade
56. Mooháfiz Khan's mosque; niche in base of minaret
Mooháfiz Khan's mosque; niche in base of southern minaret
Mooháfiz Khan's mosque; niche in base of southern minaret
Mooháfiz Khan's mosque; summit of a minaret
57. Achoot Beebee's mosque
The queen's mosque in Sárungpoor; central arch
Dádá Huree's well at Asárwa
Shah Alum; interior of mosque
58. Dustoor Khan's mosque; perforated stone window
Shah Alum; a small tomb
Shah Alum; tomb of the saint
Shah Alum; the mosque
59. Mosque of Mahomed Ghous
Mosque of Mahomed Ghous, from the south
Mosque of Mahomed Ghous; the interior
The Shápoor mosque

MANDOO.

60. The Water Palace
Jumma mosque

Case 16.**PHOTOGRAPHS BY STEPHEN BOURNE.**

Case No. 16 contains a selection from the photographs of Northern India, made and published by Messrs. Shepherd and Bourne, of Simla. Some of these illustrate the same buildings as those represented in the photographs in the three first cases, but in themselves they form a very complete illustration of the architecture of the western and northern parts of the Bengal Presidency. The arrangement in this case is partly geographical, partly chronological.

SARNATH.

The Tope of Sarnath is one of the few Buddhist remains that exist in anything like a perfect state in Bengal proper. Its date is not very well ascertained, but it probably assumed its present external form in the tenth century. The carving in the lower part is peculiar, but very elegant.

1. Ancient Buddhist tope
Remains of brick tope
2. Carving on Buddhist tope
Carving on Buddhist tope

BENARES.

Benares is one of the most picturesque and beautiful cities in India, and may be one of the oldest. No building, however, exists in it now whose date is anterior to the thirteenth century; almost all those on the banks of the river, as represented in the accompanying photographs, being of comparatively recent date.

3. General view from opposite bank of Ganges
The river and bridge of boats
The city and ghâts from top of great mosque
4. The great mosque of Arungezebe and adjoining ghâts
The burning ghât
5. The temple of 'Vishnū Pud'
Rajah Jey Singh's observatory
6. Suméree temple at Ramnuggur
Suméree temple at Ramnuggur, showing carvings in lower portion
7. Carvings on Rajah Amehti's temple

HURDWAR.

View from opposite bank of the Ganges

GWALIOR.

The fort of Gwalior is one of the finest of its class in India. Its temples and the Jaina sculpture on the sides of the rock on which it stands range from the tenth to the sixteenth centuries. The palace was built by Maun Sing,

1486-1516, and some Mahomedan buildings were added after it fell into the power of the Delhi emperors.

8. The palace and principal entrance
The fort and city from the ramparts
9. The Happy Valley; Buddhist figures cut in the rock
Rocks, with sculptured figures
10. Jaina temple in the fort
Jaina temple; the entrance
11. Smaller Brahminical temple in the fort
Jaina temple; interior

BINDRABUND.

12. Hindu temple, erected during reign of Akbar, 1556-1605
Hindu temple
13. Group of modern temples

GOVERDHUN.

The palaces of the Bhurtpore Rajas at Goverdhun and Deeg are among the most remarkable examples of the modern Hindu style in Northern India, and are distinguished for their megalithic character; no arches being used anywhere, though the form of the Saracenic arch is even where apparent.

The palace and tank

DEEG.

14. The fort from the north-west
General view from the fort
The palace and tank
The palace from the garden

GOVERDHUN.

15. Upper portion of the palace

DEEG.

The Nūndh Bhôwân; interior

KASHMIR.

The style of architectural design in Kashmir differs in many essential respects from that found in any other part of India, and betrays in every detail the influence of the classical feeling introduced through the Greek kingdom of Bactria. The one known exception to this is the Tukht-i-Soliman, which is in the Hindu style.

In other instances the practice of employing the deodar pine-wood as the principal building material, which is almost universal in the hills, has strongly influenced both the Mahomedan and Hindu styles of the valley. Illustrations of this wooden architecture will be found in Frames 20 and 21.

16. Ancient temple at Nowshera
Ancient temple at Nowshera ; inner temple
17. Ruins of Martund from south-east
Ruins of Martund ; central building

KANGRA.

18. Ancient temple
Porch of temple at Byjnath

KASHMIR.

19. Tukht-i-Soliman

KANGRA.

Stone bullocks in ancient temple

CHERGAON.

20. Temple

SIMLA.

Temple near waterfall

PANGI.

21. Temple

CHUMBA.

Temples and bazaar

KASHMIR.

22. Bridge on the Marqual Canal
Merchants' houses on the Marqual Canal

SRINUGGUR.

23. Shah Hamadan Musjid

SHALIMAR.

Nautch bungalow

DERALI.

24. Small temples on the Ganges

BHEEM TAL.

The lake, from near the Dák Bungalow

LAHORE.

25. Huzeori Bagh and fort
The city, from Wuzer Khan's mosque
26. Runjeet Singh's tomb
View from palace in fort

UMRITSIR.

27. Babatal temple
The golden temple

DELHI

28. The Kootub ; colonnade of Hindu pillars
The Kootub ; interior of eastern colonnade
29. Ala-ood-deen's gateway
Tomb of Shumsh-ud-deen Altumsh
30. Mausoleum of the Emperor Humaioon
View from top of Humaioon's tomb
31. The Jumma Musjid, from north-east
The Kila Kona mosque
32. Mausoleum of Sufter Jung
Tomb of Nizam-ood-deen
33. Tomb of Mirza Jehangir
Interior of Chousut Kumba
35. The palace ; the Motee Musjid
The palace ; interior of the Dewan-i-Kass
35. Tomb of the Emperor Toghluk
Ruins of the fort of Toghlukabad

FUTTEHPORE SIKRI.

Futtehpore Sikri, near Agra, was long the favourite residence of Akbar (1556-1605), the greatest sovereign of his race, and he adorned it with a series of buildings as remarkable as anything of their class to be found in India. A strong feeling for Hindu art prevails throughout, though not to the same extent as at Ahmedabad, and the whole is stamped with that bold originality which marked every act of the great man to whom they owe their origin.

His tomb at Secundra is in the same style, and exhibits the same originality, as the building at Sikri.

The buildings of Agra, Delhi, and Lucknow, have already been alluded to in describing the contents of Case 10.

36. The great gate, Futtehpore Sikri
The mosque on the western side of quadrangle
37. Interior of the great quadrangle
Interior of the great quadrangle, showing inner side of great gate
General view of the ruins
38. View of the ruins from top of the Dewan-i-Kass
Akbar's office
39. Tomb of Sheik Selim Chisti
Two of the marble screens in tomb of Sheik Selim Chisti
40. Pillar in tomb of Sheik Selim Chisti
Temple of Gooroo-ki-Māndi
41. The Pāuch Mehal
The palaces of the Sultana of Constantinople
42. The Dewan-i-Kass
The palace of Beerbul
43. The Elephant Tower
Pillars in the Pāuch Mehal

AGRA.

44. Pillars in the palace of Akbar

SECUNDRA.

- The entrance gate from the garden
45. The mausoleum of Akbar; the upper marble sarcophagus
The mausoleum of Akbar; from an angle of the first terrace

DELHI.

46. The palace; Lahore gate

AGRA.

The fort from the south-west

SECUNDRA.

View from top of entrance gate

AGRA.

The following ten views are of buildings erected during the reigns of Akbar's successors, Jehangir and Shah Jehan, A.D. 1605-1658.

47. Front of the Motee Musjid
Interior of the Motee Musjid
48. The marble palace of Shah Jehan, with the Taj in the distance
The marble palace of Shah Jehan
49. The fort; exterior of the Zenana
The fort; exterior of the Zenana
50. The Taj Mahal
The Taj; screen enclosing the sarcophagi
51. Mausoleum of Prince Etimad-Dowlah
Mausoleum of Prince Etimad-Dowlah, from the gate

LUCKNOW.

Shuja-ud-Doulah became an independent sovereign, and made Lucknow his capital about the year 1756. None of the buildings here illustrated are so early as this date.

52. Buildings in the garden of the Hooseinabad
View from the terrace of the Hooseinabad
53. The Roumi Darwaza in the fort
Great Emambara and mosque
54. General view from the fort
Gateway of the Hooseinabad Bazaar
55. The Hooseinabad Emambara
View in the Kaiser Bagh
56. The Kaiser Pasund; from south-west
The Chutter Munzil; west side
57. The Kaiser Pasund; from north-west
The Chutter Munzil
58. The mermaid gate, Kaiser Bagh
East gate of the Kaiser Bagh
59. The Chutter Munzil, from the river
Vinery and buildings in the Kaiser Bagh

CAWNPORE.

60. Screen surrounding the memorial well, designed by Col. Yule; the marble statue by Marochetti
The memorial well; with English church in the distance

BENARES.

Queen's College

ILLUSTRATIONS AND RESTORATIONS OF THE AMRAVATI TOPE.

By JAMES FERGUSON, Esq., F.R.S.

The illustrations of the *Amravati Tope* consist of photographs made by Mr. Griggs, under the superintendence of Dr. Forbes Watson, from marbles in the East India Museum, which were brought home principally by Sir Walter Elliot from a great Buddhist monument existing on the banks of the river Kistnah, not far from its mouth, in the northern part of the Madras Presidency. The original name of the city to which it belonged was Dharanikota. Amravati is a modern city erected only seventy years ago.

As will be seen from the coloured plan on the wall, what now remains of the monument consists of two stone enclosures 12 feet apart, the outer of these being internally 195 feet in diameter. It originally consisted of upwards of 100 pillars richly sculptured in their inner faces, but less profusely on the external side. The whole height with the frieze and basement was about 14 feet.

The two pillars in the centre of the room belong to this rail, and are perfect for about two-thirds of their height. The two frames in the wall (Nos. 1 and 2) contain restorations of the rail in so far as the remains in the East India Museum would admit of this being done. Their scale is one-twelfth of the real size. The two circular slabs of marble beneath these frames are examples of the mode in which the inner and outer faces of the intermediate rails were ornamented.

The inner circle was solid, and half the height of the outer, and even more profusely sculptured than the external rail. A portion of

this screen, restored from the fragments in the East India Museum, is shown in the lower part of frame No. 4. Its ornaments were principally representations of the Tope or Dagoba itself. Ten of these, double the scale of the other fragments, are in two frames (Nos. 3 and 5) on the wall. So far as can be made out from the remains, between forty and fifty such representations originally existed, similar in general outline, but all differing in the scenes and emblems represented upon them. One of the smaller type of these dagobas stands on the floor under the frames.

In the centre of the enclosure there originally stood a dagoba similar in general outline to the largest of the three exhibited in Frames 3 and 5, but, so far as can be made out from the fragments found on the spot, measuring about fifty feet in height by about thirty to forty feet in diameter.

The erection of this monument was commenced apparently in the second or third century of our era, and discontinued before the beginning of the sixth.

The monument is chiefly interesting from the extent and beauty of its bas-reliefs, which illustrate to a greater extent than any other known monument, the legendary history of Buddhism as it existed at the time of its erection. It is moreover especially so from its displaying a larger admixture of serpent worship with Buddhism than is found anywhere else in India. In this respect the Amravati Tope is, so far as is now known, nearly unique.

THE SANCHI TOPE.

SOUTH WALL.

As a means of comparison, two frames are placed on the wall containing illustrations of the *Sanchi Tope*, near Bhilsa. This monument is between two and three centuries older than that at Amravati, some parts of it being anterior to the Christian era. Its surrounding rail, as seen in Frames 6 and 7, is much more simple,

and is indeed almost entirely without ornament, but its gateways (in Frame 7) are as elaborate as anything at Amravati. Their constructive details, with those of the rail, betray their wooden origin, which is characteristic of all the early structural monuments of India. No image of Buddha is found amongst the ornaments of these gateways, and snake worship can hardly be detected.

On the other side of the doorway are placed some fragments of Hindu sculpture sent home by Sir Bartle Frere, late governor of Bombay. They are taken from the ruins of a Hindu temple in Rajpootana, and are probably of the fifteenth century.

WEST WALL.

Frame 8. Map of India, with the names of those places illustrated by the photographs in the collection.

Frame 9. General view of the great temple at Hullabeed; see Case 12.

Frame 10. Two general views of the temple of Nakhon Wat, in Cambodia; see Case 15.

Frame 11. Six views of buildings at Ahmedabad; see Case 10.

Frame 12. Six views of buildings in Dharwar and Mysore; see Case 12.*

Frame 13. Three views of Beejanugger; see Case 10.

Frame 14. Pendant from centre of dome of Jain temple of Vimala Sah, at Abu; eleventh century.

Frame 15. Enlarged view of window of Seedee Syeed's mosque; see Case 10.

Frame 16. Two views of palace at Deeg; see Case 12.

* The three works on 'Dharwar and Mysore,' on 'Beejapoor,' and 'Ahmedabad,' are in the Indian court of the Exhibition. Besides a great number of photographs not shown in these cases, they contain historical essays by T. C. Hope, Bombay Civil Service, and Col. Meadows Taylor, together with architectural descriptions of the buildings by James Fergusson.

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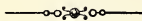
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NOTE.—COLLECTION OF MODERN ART.



In her public collections, England, with few exceptions, does not possess any of the works of her living artists which have been produced since 1855. The best examples of her Painters, admissible to the Exhibition, according to the rules, are the property of private purchasers, and the ornament of their homes. Such treasures are at all times borrowed with difficulty, which has in this instance been greatly increased by the risk of removal to a foreign country, and by the many recent Exhibitions of pictures on loan in England. For these reasons the art of the English School does not receive its full illustration in the present collection. In Painting, more especially in oil, the works of several distinguished artists do not appear, while some others are but inadequately represented. In Sculpture the difficulties were further increased by the absence of appropriate space, and the injuries which unavoidably happened in the transport of marble groups to the former Exhibition, and English sculptors have made only few contributions.

NOTE.—ŒUVRES D'ART MODERNE.



Dans ses collections publiques, l'Angleterre, sauf quelques exceptions, ne possède de ses artistes vivants, aucune des œuvres produites depuis 1855. Les meilleurs tableaux de ses peintres, et qui rentrent dans les conditions d'admissibilité à l'Exposition, sont des propriétés particulières, et ornent les habitations de ceux qui les possèdent. C'est toujours avec difficulté que l'on prête de semblables trésors, et ces difficultés sont plus grandes encore, lorsque, comme dans la circonstance présente, les risques que l'on court augmentent par suite du transport des œuvres dans un pays étranger; si l'on ajoute à cela les diverses expositions de tableaux prêtés qui ont eu lieu dans ces derniers temps, on comprendra pourquoi les spécimens d'Art exposés ne représentent qu'incomplètement l'École anglaise. En ce qui concerne plus particulièrement la peinture à l'huile, plusieurs artistes distingués ne sont pas représentés, tandis que quelques autres ne le sont que d'une manière insuffisante. Pour ce qui regarde la Sculpture, on a également rencontré des difficultés sérieuses à cause du manque d'emplacement d'abord, et des accidents survenus dans le transport des groupes de marbre lors de l'exposition précédente. Les sculpteurs anglais ont donc fait des envois très-restreints.

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Peintures à l'Huile.
Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)

(*Voir le système de classification, p. xiv.*)

(Für detaillirte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione, p. xiv.*)

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The property of the Artist

Treading out the Corn (Alhambra)

Foulant le blé (Alhambra)

Kornaustreten (wie in der Alhambra zu sehen)

Trebbia del grano veduta nell' Alhambra

2 ARCHER, JAMES, R.S.A., 21A Phillimore-gar-
dens, Kensington, London

The property of L. V. Flatow, Esq.

Buying an Indulgence for Sins committed and
to be committed

*Se procurant une indulgence pour les péchés
du passé et de l'avenir*

Ablaskaufen für begangene und zukünftige
Sünden

*Compra di indulgenza per peccati commessi
e da commettersi*

3 ARMITAGE, EDWARD, A.R.A., 3 Hall-road,
St. John's-wood, London

The property of the Artist

Esther's Banquet (Book of Esther vii. 7, 8)

Le festin d'Esther (Livre d'Esther vii. 7, 8)

Das Banquet Esther's (Buch Esther vii. 7, 8)

Il Banchetto d' Ester (Libro d' Ester vii. 7, 8.)

4 BALLANTYNE, JOHN, R.S.A., The Mall, Ken-
sington, London

The property of Peter Dickson, Esq.

Daniel Maclise, R.A., at work on his fresco of

'The Death of Nelson' in the House of Lords

Portrait de Daniel Maclise, R.A., occupé à

peindre la fresque de 'La Mort de Nelson'

dans la Chambre des Pairs

Daniel Maclise, an seinem Fresco, 'Der Tod

Nelson's,' im Herrenhause arbeitend

Daniel Maclise (Membro dell' Accademia Reale)

mentre lavora all' affresco della 'Morte di

Nelson' che esegui nella Camera dei Lords

- 5 BARCLAY, J. M., A.R.S.A., 11 Forres-street, Edinburgh

The property of Her Grace the Dowager Duchess of Athole

Full-length portrait of His Grace the late Duke of Athole

Portrait en pied de Sa Grace, feu le Duc d'Athole

Portrait seiner Hoheit des verstorbenen Herzogs von Athole in Lebensgrösse

Ritratto in piede di Sua Eccellenza il Duca di Athole

- 6 BARWELL, FREDERICK B., 8, Beresford-terrace, Notting-hill, London.

The property of the Artist
The Pit-mouth 'Unaccredited Heroes'

Héros non reconnus de la houillère

Die nichtgewürdigten Helden der Kohlengrube
La bocca di miniera, 'Eroi senza Diploma'

- 7 BOTTOMLEY, JOHN WILLIAM, 46 Bedford-gardens, Kensington, London

The property of Mrs. G. Holgate Foster
Under the Cloud—Couvert de nuages

Unter den Wolken—*Sotto una nube*

- 8 BOXALL, WILLIAM, R.A., 14 Welbeck-street, Cavendish-square, London

The property of Rt. Hon. E. Cardwell, M.P.
Portrait of Mrs. Cardwell

Portrait de Madame Cardwell

Portrait der Madame Cardwell

Ritratto della Signora Cardwell

- 9 BRETT, JOHN, 6 Pump-court, Temple, London

The property of Alfred Morrison, Esq.
Capri in the evening

Capri, effet de soleil couché

Capri im Abend

Capri di sera

- 10 BRIDELL, MRS. LEE, 8 Victoria-road, Kensington, London

The property of the Artist
An Arab Girl, her hair dyed with henna

Jeune fille arabe, avec les cheveux teints de hennah
Ein Arabisches Mädchen, ihr Haar mit

Henna gefärbt

Fanciulla araba coi capelli tinti con alchenna

- 10A BROOKS, T., 3 Upper Phillimore-gardens, Kensington, London

The property of the Artist
Bad news on the threshold

Mauvaises nouvelles au seuil de la porte

Traurige Nachricht an der Thürschwelle

Cattive nuove alla soglia

- 11 BURGESS, JOHN B., 30 Regent's-park-road, London

The property of Mr. Alderman Salomons, M.P.
'Bravo, Toro!'—'Bravo, Toro!'

'Bravo, Toro!'—'Bravo, Toro!'

- 12 CALDERON, PHILIP H., A.R.A., 16 Marlborough-place, St. John's-wood, London

The property of Alexander Collie, Esq.
'Her Most High, Noble, and Puissant Grace'

'Très-Haute, Noble et Puissante Dame'
Ihre sehr Hohe, Erlauchte und Mächtige Gnaden

Sua Altezza Nobilissima, Potentissima e Serenissima

The property of James Fallows, Esq.
The English Embassy in Paris on the night

of the Massacre of St. Bartholomew
L'Ambassade anglaise à Paris, pendant la

nuît de la Saint-Barthélemy
Die Englische Gesandtschaft zu Paris in der

St. Bartholomäus-Nacht

L'Ambasciata inglese a Parigi la notte del
massacro di S. Bartolommeo

- 13 CARRICK, J. M., 32 Regent-street, London

The property of the Artist
'Chare-Ladder,' Cornwall

'Chare-Ladder,' comté de Cornouailles

'Chare-Ladder,' Cornwall

'Chare-Ladder' in Cornwall

- 14 CHESTER, GEORGE, 10 St. Alban's-road, Kensington, London

The property of the Artist
Through the Wood—A travers la forêt

Durch den Wald—A travers il Bosco

- 15 CLAXTON, MARSHALL, 13 Osnaburgh-street, Regent's-park, London

The property of the Artist
The Procession to the Temple (Psalm lxxviii.)

La Procession vers le Temple (Psaume lxxviii.)

Der Zug nach dem Tempel (Psalm lxxviii.)

La Processione al Tempio (Salmo lxxviii.)

- 16 CLINT, ALFRED, 11 Young-street, Kensington, London

The property of the Artist
Sunset after a Storm

Soleil couchant après l'orage
Sonnenuntergang nach einem Sturm

Tramonto dopo burrasca

- 17 COLE, VICAT, Holmbury-cottage, Dorking

The property of Mr. Alderman Salomons, M.P.
Summer's Golden Crown

Couronne d'or de l'Été
Die goldene Krone des Sommers

Corona aurea dell'Estate

- 18 COLLINSON, ROBERT, 20 Hereford-square, London

The property of Charles L. Collard, Esq.
An English Solitude

Paysage en Angleterre—Solitude
Englische Einsamkeit

Solitudine inglese

- 19 COOKE, EDWARD WILLIAM, R.A., F.R.S., The Ferns, Kensington, London

The property of Ernest Gambart, Esq.
Rescue of the crew of a Barque on the Goodwin Sands by the 'Van Kook,' North Deal

Life-boat
Délivrance de l'équipage d'une barque échouée

sur le sable de Goodwin par le 'Van Kook,'
bateau de sauvetage de North Deal

Rettung der Mannschaft einer Barke auf dem Goodwin-Sand durch das Rettungsboot 'Van Kook' von North Deal

Salvazione della ciurma di una nave sulle
Sabbie Goodwin dalla barca di salvagione

'Van Kook' di North Deal

- 0 COOPER, THOMAS SIDNEY, A.R.A., 2 Dorset-square, Regent's-park, London**
The property of John D. Allcroft, Esq.
 'North'—*Paysage en Écosse*
 'Norden'—*Il Settentrione*
- 1 COPE, CHARLES WEST, R.A., 19 Hyde-park-gate South, Kensington, London**
The property of John Kelk, Esq., M.P.
 The parting of Lord and Lady Russell
Derniers adieux de Lord et Lady Russell
 Lord und Lady Russell's Abschied
L'estremo addio di Lord e Lady Russell
- 2 CORBOULD, ALFRED, 9 Warwick-crescent, Kensington, London**
The property of the Artist
 Brigade Field-day
Jour de revue par Brigade
 Feldtag der Brigade
Esercizio campale di Brigata
- 3 CROWE, EYRE, 33 Langham-street, London**
The property of the Artist
 Whitefield preaching in Moorfields, 1742
Whitefield prêchant à Moorfields, en 1742
 Whitefield, predigend in Moorfields, 1742
Whitefield che predica in Moorfields, 1742
- 4 DAVIS, H. W. B., 10A Cunningham-place, St. John's-wood, London**
The property of J. Morby, Esq.
 Spring-time, Vallée de la Liane, Pas de Calais
Printemps, la Vallée de la Liane, Pas de Calais
 Frühling, Vallée de la Liane, Pas de Calais
Primavera, Vallata della Liane, Pas de Calais
- 5 DESANGES, LOUIS W., 16 Stratford-place, London**
The property of the Artist
 Portrait of H.R.H. Alexandra Princess of Wales
Portrait de S.A.R. Alexandra Princesse de Galles
 Portrait Ihrer Königlichen Hoheit der Prinzessin von Wales
Ritratto di S.A.R. la Principessa di Galles
- 6 DILLON, FRANK, 13 Upper Phillimore-gardens, Kensington, London**
The property of the Artist
 Temple near the Sphinx excavated by M. Mariette
Temple près du Sphinx, déblayé par M. Mariette
 Tempel bei der Sphinx, ausgegraben von M. Mariette
Tempio presso la Sfinge scavato da M. Mariette
- 7 DOBSON, WM. C. T., A.R.A., Eldon-house, Hampstead, London**
The property of Wm. Bowman, Esq., F.R.S.
 The Child Jesus in the Temple
L'Enfant Jésus au Temple
 Das Kind Jesus im Tempel
Il Bambino Gesù nel Tempio
The property of Wm. Bowman, F.R.S.
- 27A Mamma's Birthday**
La Fête de Maman
 Mammass Geburtstag
La Festa della Mamma
- 28 EDWARDS, Miss ELLEN, 10 Oakley-street, Chelsea, London**
The property of Henry Graves, Esq.
 The last Kiss—*Le dernier Baiser*
 Der letzte Kuss—*L'ultimo Bacio*
- 29 EGG, AUGUSTUS, R.A. (the late)**
The property of T. Fairbairn, Esq.
 Scene from 'Henry Esmond'
Scène du roman 'Henry Esmond'
 Scene von 'Henry Esmond'
Scena dall' 'Henry Esmond'
- 30 ELMORE, ALFRED, R.A., 1 St. Alban's-road, Victoria-road, Kensington, London**
The property of John Kelk, Esq., M.P.
 The Tuileries, June 20, 1792
Les Tuileries, le 20 juin 1792
 Die Tuilerien am 20. Juni 1792
Le Tuileries, 20 giugno 1792
The property of Arthur Burnand, Esq.
- 30A Within the Convent Walls**
Au Couvent
 Innerhalb der Mauern des Convents
Tralle Mura del Convento
The property of E. J. Coleman, Esq.
- 30B 'On the Brink'**
'Au bord de l'abîme'
 'An dem Abgrunde'
'Sull' Orlo'
- 31 FAED, THOMAS, R.A., Sussex-villa, Camden-hill, London**
The property of John Fleming, Esq.
 'His Only Pair'—*'La seule paire'*
 'Sein einziges Paar'—*'Il solo Paio'*
The property of S. Leaf, Esq.
- 31A 'Baith Faithier and Mither'**
'Et père et mère'
 'Sowohl Vater wie Mutter'
'Babbo e Manma'
The property of J. Davidson, Esq.
- 31B 'Music hath Charms'**
'Toute musique a ses charmes'
 'Musik hat Reize'
'La Musica ha Attrattive'
- 32 FARRIER, ROBERT, 2 Hemus-terrace, Chelsea, London**
The property of the Artist
 'L'avarice perd tout en voulant tout gagner'
'L'avarice perd tout en voulant tout gagner'
 Geiz ('L'avarice perd tout en voulant tout gagner')
'L'avarizia perde tutto bramando tutto'
- 33 FISK, WM. HENRY, 4 North-villas, Camden-square, London**
The property of the Artist
 The last night of Jesus Christ in His Nazarene home—'The night is far spent, the day is at hand'

- La dernière soirée de Jésus-Christ à Nazareth.*
—'La nuit est déjà fort avancée et le jour s'approche'
Die letzte Nacht Jesu Christi in seiner Heimath zu Nazareth — 'Die Nacht ist beinahe vorüber, der Tag bricht an'
L'ultima Notte di Gesù Cristo nella Sua Casa in Nazaret—'La notte se ne va, il giorno si avvicina'
- 34 FRITH, WM. POWELL, R.A., 7 Pembridge-villas, Bayswater, London
The property of W. Grapel, Esq.
Claude Duval—*Claude Duval*
Claude Duval—*Claudio Duval*
- 35 FROST, WM. EDWARD, A.R.A., 38 Fitzroy-street, London
The property of J. Morby, Esq.
The Death of Adonis—*La Mort d'Adonis*
Der Tod des Adonis—*La Morte di Adone*
The property of C. Roberson, Esq.
- 35A L'Allegro—*L'Allegro*
L'Allegro (das Allegro)—*L'Allegro*
The property of C. Roberson, Esq.
- 35B A River Nymph—*Nymphe du fleuve*
Eine Flussnymphe—*Una ninfa di fiume*
- 36 GALE, WILLIAM, Langham-chambers, Portland-place, London
The property of William Clare, Esq.
The Alabaster Box of Precious Ointment
Le vase d'albâtre plein d'huile de parfum
Die Alabaster-Dose mit werthvoller Salbe
La scatola d'alabastro dell'unguento prezioso
- 37 GILBERT, JNO. GRAHAM, R.S.A. (the late)
The property of Lord Provost and Magistrates of the City of Edinburgh
Portrait of Right Hon. Chas. Lawson, Lord Provost of Edinburgh, 1865
Portrait du Très-Honorable C. Lawson, Lord Provost d'Édimbourg, 1865
Portrait von Charles Lawson, Lord Provost von Edinburgh, 1865
Ritratto del Molto Onorevole Carlo Lawson, Lord Provost di Edimburgo, 1865
- 38 GILL, WILLIAM, 10 Portland-place, Leamington
The property of the Artist
A Recollection of Guy Fawkes' Day, Fifty Years Ago
Souvenir du Jour de Guy Fawkes, cinquante ans passés
Erinnerung an Guy Fawkes' Tag (Pulver-verschwörung) vor fünfzig Jahren
Rimembranza della giornata di Guido Fawkes, cinquant'anni fa
- 39 GOODALL, FREDERICK, R.A., 3 Camden-square, London
The property of Thomas Lucas, Esq.
The Palm-Offering
Offrande de palmes
Das Palmen-Opfer
L'Offerta delle palme
The property of the Royal Academy

- 39A The Nubian Harper
Joueur de la harpe de Nubie
Der Nubische Harfenspieler
L'Arpista nubiano
- 40 GORDON, SIR WATSON, R.A. (the late)
The property of the University of Oxford
Portrait of the Prince of Wales
Portrait du Prince de Galles
Portrait des Prinzen von Wales
Ritratto del Principe di Galles
The property of the Royal Academy
- 40A Portrait of Sir Wm. Allan, R.A.
Portrait de Sir William Allan, R.A.
Portrait des Sir W. Allan, R.A.
Ritratto di Sir W. Allan, R.A.
- 41 GRAHAM, PETER, 13 Gloucester-terrace, Campden-hill, Kensington, London
The property of Frederick Somes, Esq.
A Spate in the Highlands
Crûe d'eau dans les Highlands de l'Écosse
Ein Wasserfall in dem Hochlande
Una Piena negli Altipiani (scozzesi)
- 42 GRANT, SIR FRANCIS, P.R.A., 27 Sussex-place, Regent's-park, London.
The property of Viscount Hardinge
The late F. M. Viscount Hardinge, accompanied by his two Sons and Colonel Wood, his Military Secretary, returning from the Battle of Ferozeshah
Retour de la bataille de Férozeshah de feu le Maréchal Vicomte Hardinge, accompagné de ses deux fils et du Colonel Wood, Secrétaire Militaire
Der verstorbene F. M. Viscount Hardinge mit seinen beiden Söhnen und dem Colonel Wood, seinem Kriegs-Secretair, zurückkehrend von der Schlacht bei Ferozeshah
Il fu F. M. Visconte Hardinge accompagnato dai suoi due figli e dal Colonnello Wood suo Segretario Militare, al ritorno dalla battaglia di Ferozeshah
The property of M. Higgins, Esq.
- 42A Portrait of M. Higgins, Esq. (the Dog painted by Sir E. Landseer)
Portrait de M. M. Higgins (le chien par Sir E. Landseer)
Portrait des Herrn M. Higgins (der Hund ist gemalt von Sir E. Landseer)
Ritratto del Signor Higgins (il cane dipinto da Sir Edwin Landseer)
The property of Mrs. Markham
- 42B Portrait of Mrs. Markham
Portrait de Madame Markham
Portrait der Madame Markham
Ritratto della Signora Markham
The property of Mrs. Brassey
- 42C Portrait of Mrs. Brassey, with favourite Horse and two Dogs
Portrait de Madame Brassey, avec son cheval favori et deux chiens
Portrait der Madame Brassey, mit Lieblingspferd und zwei Hunden
Ritratto della Signora Brassey con cavallo e due cani prediletti

3 HARDY, FREDERICK D., Cranbrook, Kent
The property of Jas. Eden, Esq.

The Sweep!

Le Ramoneur!

Der Schornsteinfeger!

Lo Spazzacammino!

The property of Samuel Cartwright, Esq.

3A The Crash!

Le Fracas!

Der Einsturz!

Lo Sconquasso!

4 HARDY, GEORGE, Cranbrook, Staplehurst,
 Kent

The property of W. H. Wall, Esq.

Evening—*Soir*

Der Abend—*Sera*

5 HARVEY, SIR GEORGE, P.R.S.A., Edinburgh
The property of James Young, Esq.

Scottish Moorland

Bruyère de l'Ecosse

Schottisches Moorland

Landa scozzese

6 HAYLLAR, JAMES, 15 Mecklenburgh-square,
 London

The property of the Artist

Queen Elizabeth's Toothache

Mal de dents de la Reine Elisabeth

Das Zahnweh der Königin Elisabeth

Il mal di denti della Regina Elisabetta

7 HEMSLEY, WM., 13 Hereford-square, South
 Kensington, London

The property of Lord Bolton

The Start

La Course

Der Anfang des Rennens

La Mossa

8 HODGSON, JOHN EVAN, 5 Hill-road, Abbey-
 road, London

The property of S. Cartwright, Esq.

Return of Sir Francis Drake to Plymouth
 after the Naval Expedition against the
 Spaniards in 1587

*Retour de Sir Francis Drake à Plymouth,
 après l'expédition maritime contre l'Espagne
 en 1587*

Zurückkunft des Sir Francis Drake nach
 Plymouth nach der See-Expedition gegen
 die Spanier, 1587

*Ritorno di Sir Francis Drake a Plymouth
 dopo la spedizione navale contro gli Spagnuoli,
 1587*

10 HOOK, JAMES C., R.A., Witley, Godalming
The property of C. P. Matthews, Esq.

From under the Sea

Du fond de la mer

Von unter der See

Di sotto il mare

The property of C. P. Matthews, Esq.

10A Sea Urchins—*Gamins de la mer*

Seeigel—*Ricci di mare*

The property of C. P. Matthews, Esq.

10B Trawlers—*Pêcheurs*

Fischer—*Pescatori di pesci piccoli*

50 HORSLEY, JOHN C., R.A., Willesley, Staple-
 hurst

The property of Thomas Lucas, Esq.

The New Dress

La nouvelle robe

Das neue Kleid

L' Abito nuovo

5 HUGHES, ARTHUR, Windsor-lodge, Wind-
 sor-street, Putney

The property of James Leathart, Esq.

Home from Work

Après une journée de travail

Die Heimkehr von der Arbeit

A casa dal lavoro

52 HUNT, ALFRED W.

The property of J. Lothian Bell, Esq.

Time and Tide

Temps et marée n'attendent personne

Zeit und Fluth

L' Ora e la Marea

53 HUNT, W. HOLMAN, 15 Queensborough-
 terrace, Bayswater, London

The property of C. P. Matthews, Esq.

The Afterglow in Egypt

Après le coucher du soleil en Égypte

Die Abenddämmerung in Egypten

L' Ardore riflesso in Egitto

54 HURLSTONE, FRED. Y., 9 Chester-street,
 Belgrave-square, London

The property of the Artist

Gulnare and the Pacha

Gulnare et le Pacha

Gulnare und der Pascha

Gulnara col Pascià

The property of D. Gooch, Esq.

54A Mazeppa Watched by the Cossack Maid
La jeune fille cosaque veille sur Mazeppa
 Mazeppa bewacht von dem Cosaken-Mädchen
Mazeppa vegliato dalla fanciulla cossacca

55 INCHBOLD, J. W., 25 Lincoln's-inn-fields,
 London

The property of A. Morrison, Esq.

King Arthur's Island

L' Ile du Roi Arthur

König Arthur's Insel

L' Isola del Re Arturo

56 JOHNSTON, ALEX., 2 Upper Fitzroy-street,
 London

The property of Frederic Somes, Esq.

The Land o' the Leal

Le pays des fidèles

Das Land Leal

La terra di Leal

57 KEYL, FRED. WM., 33 Carlton-hill, St.
 John's-wood, London

The property of Henry Graves, Esq.

Water Dogs

Chiens à l'eau

Wasserhunde

Bracchi da acqua

- 58** KNIGHT, John P., R.A., 20 James'-street, Buckingham-gate, London
The property of the Royal Academy
 Sir C. L. Eastlake, P.R.A.
Portrait de feu Sir Charles L. Eastlake, Président de l'Académie Royale
 Sir. C. L. Eastlake, P.R.A.
Sir C. L. Eastlake, P.R.A.
The property of General Cabrera
- 58A** General Cabrera, Conde de Morella
Portrait du Général Cabrera, Comte de Morella
 General Cabrera, Graf von Morella
Il General Cabrera, Conte di Morella
- 59** LANDSEER, SIR EDWIN, R.A., 1 St. John's-wood-road, London
The property of W. H. Eaton, Esq. M.P.
 'The Shrew Tamed'—'*La Jument domptée*'
 'The Shrew Tamed' (das gezähmte böse Weib)
 'L' *Indomita domata*'
- 60** LEADER, BENJAMIN WM., The Lodge, Whittington, Worcester
The property of A. Castellain, Esq.
 Autumn's Last Glean
Dernier rayon de l'Automne
 Der letzte Glimmer des Herbstes
L'ultimo barlume d'Autunno
- 61** LEIGHTON, FRED., A.R.A., 2 Orme-square, Bayswater, London
The property of Messrs. Agnew & Sons
 The Brides of Syracuse
Les Fiancées de Syracuse
 Die Bräute von Syracus
Le Fidanzate di Siracusa
The property of E. L. S. Benzon, Esq.
- 61A** Golden Hours
Heures précieuses
 Goldene Stunden
Ore auree
- 62** LESLIE, GEORGE, 2 Elgin-road, Edgware-road, London
The property of John Humphery, Esq.
 Clarissa—*Clarisse*
 Clarissa—*Clarissa*
- 63** LEVIN, PHÖBUS, 19 Westbourne-park-crescent, London
The property of Archibald Scott, Esq.
 A Royalist Mother Depositing her Child at the Foundling Hospital, 1792
Une mère royaliste déposant son enfant à l'Hospice des Enfants trouvés, en 1792
 Eine Royalistin, die ihr eigenes Kind in das Findelhaus bringt, 1792
Madre Realista che deposita il Figlio ai Trovatelli, 1792
- 64** LEWIS, CHARLES J., Cheyne-house, Chelsea, London
The property of the Artist
 A Berkshire Barleyfield
Pièce d'orge, comté de Berkshire
 Ein Gerstenfeld in Berkshire
Campo d'Orzo in Berkshire
- 65** LEWIS, JOHN FRED., R.A., Walton-on-Thames
The property of Wm. Leaf, Esq.
 The Hosh (courtyard) of the House of the Coptic Patriarch, Cairo
Cour de la maison du Patriarche Copte, au Caire
 Der 'Hosh' oder Hof des Hauses des Coptischen Patriarchen zu Cairo
 'L' *Hosh*' (cortile) della Casa del Patriarca Copta al Cairo
The property of C. P. Matthews, Esq.
- 65A** A Turkish School in the Vicinity of Cairo
École turque aux environs du Caire
 Eine Türkische Schule in der Nachbarschaft von Cairo
Scuola Turca nei dintorni del Cairo
- 66** LINNELL, JOHN, SEN., Red Hill, Surrey
The property of John Chapman, Esq.
 A Cornfield
Champ de blé
 Ein Kornfeld
Campo di grano
- 67** LINNELL, THOMAS G., Red Hill, Surrey
The property of the Artist
 The Gipsy Dell
Repaire des Bohémiens
 Das Zigeuner-Loch
Il Valloncello dello Zingano
- 68** LINNELL, WM., Red Hill, Surrey
The property of William Harrison, Esq.
 'As a Shepherd divideth the Sheep from the Goats'
'Comme un berger sépare les brebis d'avec les boucs'
 'Wie ein Schäfer die Schafe von den Ziegen absondert'
 'Come il Pastore separa le Pecore dalle Capre'
- 69** LONG, EDWIN, 33 Ovington-square, London
The property of Henry Wallis, Esq.
 Theatre at a Spanish Fair
Théâtre de foire en Espagne
 Theater auf einer Spanischen Messe
Teatro ad una Fiera spagnuola
- 70** LUCY, CHARLES, Tudor-lodge, Albert-street, Mornington-crescent, London
The property of the Artist
 Burial of Charles I. in St. George's Chapel, Windsor, 1649
Sépulture du Roi Charles I^{er} dans la Chapelle St. George, à Windsor, en 1649
 Begräbniss Karls I. in der St. George's Kapelle, zu Windsor, 1649
Tumulazione di Carlo I. nella Cappella di S. Giorgio a Windsor, 1649
- 72** MACCALLUM, A., 47 Bedford-gardens, Campden-hill, London
The property of A. Morrison, Esq.
 Edge of Gorge aux Loups, Fontainebleau
Bord de la Gorge aux Loups, à Fontainebleau
 Rand der Gorge aux Loups zu Fontainebleau
Orlo della Gorge aux Loups, Fontainebleau

- 73 McCULLOCH, GEORGE, 12 Bloomsbury-street, London

The property of the Artist

Lost Eurydice
Eurydice perdue
Die verlorene Eurydice
Euridice perduta

- 74 McCULLOCH, HORATIO, R.S.A., Edinburgh

The property of Wm. Harrison, Esq.

Loch Katrine, Perthshire
Le Lac Katrine, en Ecosse
Loch Katrine (Katrinensee), Perthshire
Lago Katrine, Perthshire

- 75 McINNES, ROBT., Ravenscroft, Stirling

The property of Miss Margaret Graham

The Infant Sunday School
L'école du dimanche
Die Sonntagsschule für kleine Kinder
La Scuola infantile dominicale

- 76 MACNEE, DANL., R.S.A., 14 Montagu-place, Glasgow

The property of the Artist

Mother and Child
La mère et son enfant
Mutter und Kind
Madre e Figlio

- 77 MARKS, HENRY S., Camden-villa, Hill-road, London

The property of E. Akroyd, Esq.

The Franciscan Sculptor and his Model
Le sculpteur franciscain et son modèle
Die Franciscaner Bildhauer und sein Modell
Lo Scultore francescano ed il suo Modello

- 78 MARSHALL, THOMAS F., Walton-villa, Victoria-road, Kensington, London

The property of the Artist

The Parting Day
Le jour d'adieu
Der Abschiedstag
Il Giorno di Partenza

- 79 MARTINEAU, ROBERT B., 1 Clarendon-road, Victoria-road, Kensington, London

The property of A. H. Novelli, Esq.

The Last Day in the Old Home
Le dernier jour dans la vieille demeure
Der letzte Tag im alten Hause
L'ultimo Giorno nell'antica Dimora

- 80 MILLAIS, J. EVERETT, R.A., Cromwell-place, South Kensington, London

The property of Charles Lucas, Esq.

The Eve of St. Agnes
La veille de Ste. Agnès
Der Abend von St. Agnes
La Vigilia di Sta. Agnese

The property of J. Pender, Esq.

80A Sowing Tares
Satan semant l'ivraie
Unkrautsäen
Seminar Zizzania

The property of W. L. Bell, Esq.

80B The Romans leaving Britain
Les Romains quittant la Grande-Bretagne
Der Abzug der Römer aus England
I Romani che abbandonano la Gran Bretagna

- 81 MOORE, HENRY, 8 Sheffield-terrace, Kensington, London

The property of the Artist

Brading Down, Isle of Wight
Brading Down, Ile de Wight
Brading Down, Insel Wight
La Duna di Brading, Isola di Wight

- 82 MORGAN, JOHN, The Villas, Aylesbury

The property of John Morgan, Esq.

Sums
Le calcul
Summen
Somme

- 83 MORRIS, P. R. 11 Queen's-road West, Chelsea, London

The property of Thomas Lambert, Esq.

Knightly Mirror
Le miroir chevaleresque
Ritterspiegel
Specchio cavalleresco

- 84 MUTRIE, MISS A. F., 9 St. Alban's-road, Kensington, London

The property of C. E. Stubbs, Esq.

Cactus—Cactus—Cactus—Cactus

- 85 MUTRIE, MISS M. D., 9 St. Alban's-road, Kensington, London

The property of C. E. Stubbs, Esq.

Orchids—Orchis—Orchiden—Orchidee

- 86 NICOL, ERSKINE, 24 Dawson-place, London

The property of Thomas Somes, Esq.

Paying the Rent
Le paiement du loyer
Das Bezahlen der Miethe
Il Pagamento del Fitto

The property of George Simpson, Esq.

86A Both Puzzled
Tous deux embarrassés
Beide verwirrt
Ambedue confusi

- 87 OAKES, J. WRIGHT, 28 Victoria-road, South Kensington, London

The property of the Artist

The Devil's Bridge, Pass of St. Gothard, Hail
Storm coming on
Le pont du diable, Défilé de St. Gothard, approche de la grêle
Die Teufelsbrücke in dem St. Gotthards-Passe,
der kommende Hagelsturm
Ponte del Diavolo, Passo del S. Gottardo, Grandine imminente

88 O'NEIL, HENRY, A.R.A., 7 Victoria-road, Kensington, London

The property of E. Leatham, Esq.
Eastward Ho!—*Partant pour la Crimée*
Ostwärts Ho!—*All' Oriente!*

The property of E. Leatham, Esq.

88A A Volunteer

Dévouement

Ein Freiwilliger

Volontario

89 ORCHARDSON, W. QUILLER, 20 Brecknock-crescent, London

The property of Stephen Plummer, Esq.
The Challenge—a Puritan's struggle between honour and conscience

Le défi—le Puritain se débattant entre l'honneur et la conscience

Die Herausforderung—Kampf eines Puritaners zwischen Ehre und Gewissen

La Sfida—contesa d'un Puritano tra l'onore e la coscienza

The property of C. P. Matthews, Esq.

89A Christophero Sly

Christophero Sly (Shakspeare)

Christophero Sly

Cristoforo Sly (scaltro)

90 OSBORNE, EMILY, 133 Gower-street, Bedford-square, London

The property of C. Prater, Esq.

Hésitation

Unentschlossenheit—*Titubanza*

The property of Miss Osborne

90A 'Half the world knows not how the other half lives'

'Nous ne savons guère ce qui se passe à côté de chez nous'

'Die eine Hälfte der Welt weiss nicht, wie die andere lebt'

'Metà del mondo non sa come vive l'altra metà'

91 PATON, Sir J. NOEL, R.S.A., 33 George-square, Edinburgh

The property of Alex. Hill, Esq.

In Memoriam (India, 1858)

In Memoriam (Indes, 1858)

In Memoriam (India, 1858)

In Memoriam (India, 1858)

The property of Wm. Wilson, Esq.

91A Home from the Crimea

De retour de la Crimée

Heim aus der Krim

A Casa dalla Crimea

92 PATON, WALLER, H., R.S.A., Rosehall-lodge, Edinburgh

The property of Mrs. Stirling

Outlet to Loch Achray

Débouché du Lac Achray

Der Ausfluss des Achray-Sees

Emissario al Lago Achray

93 PETTIE, JOHN, A.R.A., 37 Gloucester-road, Regent's-park, London

The property of V. Flatow, Esq.

The Arrest for Witchcraft

Sorcière arrêtée

Die Verhaftung für Hexerei

Arresto per Stregoneria

94 PHILLIP, JOHN, R.A. (the late)

The property of John Pender, Esq.

La Gloria, a Spanish Wake

La Gloria, veille en Espagne

La Gloria, ein Spanischer Begräbnisschmauss

La Gloria, Veglia spagnuola

The property of the Executors

94A A study—Ein Studium

Étude—Studio

95 PHILLIPS, HENRY W., 8 George-street, Hanover-square, London

The property of the Artist

Portraits of Captains Speke and Grant, African travellers

Portraits des Capitaines Speke et Grant, explorateurs de l'Afrique

Portraits der Capitäne Speke und Grant (Reisende in Afrika)

Ritratti dei Capitani Speke e Grant, viaggiatori in Africa

96 PICKERSGILL, FRED. RICHARD, R.A., Park-house, East Moulsey, Surrey

The property of C. J. Northcote, Esq.

Pirates of the Mediterranean playing at dice for prisoners

Corsaires de la Méditerranée jouant aux dés pour leurs prisonniers

Seeräuber vom Mittelländischen Meer, die Gefangene auswürfeln

Pirati del Mediterraneo che si giuocano a dadi i Prigionieri

97 POOLE, PAUL FALCONER, R.A., Glyddes-house, Haverstock-hill, London

The property of C. F. Perkins, Esq.

The Song of Philomena on the Shore of the Beautiful Lake

Chanson de Philomène sur le bord du Beau Lac

Der Gesang der Philomena am Ufer des Schönen Sees

Il Canto di Filomela sulle rive del Bel Lago

The property of C. P. Matthews, Esq.

97A A suburb of Pompeii during the time of its burial under the ashes of Mount Vesuvius

Faubourg de Pompéii, pendant son ensevelissement sous les cendres du Vésuve

Eine Vorstadt von Pompeji während ihres Begräbnisses unter den Aschen des Vesuvs

Sobborgo di Pompei al tempo in cui fu sepolta dalle ceneri del Vesuvio

98 PRINSEP, VAL. C., 1 Holland-park-road, Addison-road, London

The property of the Artist

Berenice, a Venetian study

Bérénice, étude de Venise

Berenice, ein Venetianisches Studienblatt

Berenice, studio veneziano

99 RANKLEY, ALFRED, Clifton-villa, Campden-hill, Kensington, London

The property of Alex. Collie, Esq.

'The Doctor's Coming!'—*Voilà le médecin!*

'Der Doctor kommt!'—*Il Dottore viene!*

99A RAVEN, JOHN, The Grange, Shepperton Green, Chertsey, Surrey

The property of the Artist

The Crops Green—*Champs de blé*
Die grüne Saat—*Grano in erba*

100 REDGRAVE, RICHARD, R.A., 18 Hyde-park-gate South, Kensington, London

The property of C. Lucas, Esq.

Jane Shore
Jane Shore
Jane Shore
Giovanna Shore

The property of the Artist

100A The Valleys stand thick with Corn

Les vallées sont revêtues de froment
Die Thäler sind voll von Korn
Le Valli sono folte di Grano

101 ROBERTS, DAVID, R.A. (the late)

The property of C. Lucas, Esq.

View of Greenwich Hospital
Vue de l'hôpital de Greenwich
Ansicht von Greenwich Hospital
Veduta dello spedale di Greenwich

The property of C. Lucas, Esq.

101A View on the Thames, Westminster

Vue de la Tamise, à Westminster
Ansicht der Themse, Westminster
Veduta sul Tamigi, Westminster

102 SALTER, WILLIAM, Devon-lodge, Portland-place, Kensington, London

The property of Robert Barbour, Esq.

Interview between Charles I. and his three younger children, Duke of York, Duke of Gloucester, and the Princess Elizabeth, in the presence of Cromwell

Entrevue du Roi Charles Ier et les trois plus jeunes de ses enfants, le Duc d'York, le Duc de Gloucester et la Princesse Elisabeth, en présence de Cromwell

Unterredung von Karl I. mit seinen drei jüngeren Kindern, dem Herzog von York, dem Herzog von Gloucester und der Prinzessin Elisabeth, in Gegenwart Cromwell's
Abboccamento fra Carlo I e i suoi tre figli minori, Duca di York, Duca di Gloucester, e la Principessa Elisabetta in presenza di Cromwell

103 SANT, JAMES, A.R.A., 43 Lancaster-gate, Hyde Park, London

The property of the Artist

The First Sense of Sorrow—an incident in the life of Steele

Le premier chagrin—incident de la jeunesse de Steele

Die erste Sorge, ein Zufall in dem Leben Steele's

La prima Sensazione di Dolore—disgrazia della gioventù di Steele

The property of the Artist

103A Claude, younger Son of N. Montefiore, Esq.

Portrait de Claude, fils cadet de M. N. Montefiore

Claude, der jüngere Sohn des Herrn N. Montefiore

Claudio, figlio minore del Signor M. Montefiore

104 SMALLFIELD, FREDERICK, 15 Greville-place, Kilburn priory, London

The property of Charles Pearson, Esq.

The Approach of Twilight

L'approche du crépuscule

Der Anbruch des Zwielflichtes

L'Avvicinarsi del Crepuscolo

105 SOLOMON, REBECCA, 106 Gower-street, Bedford-square, London

The property of Charles Prater, Esq.

Peg Woffington's Visit to Triplet

Visite de Peg Woffington à Triplet

Peg Woffington's Besuch zu Triplet

Visita di Peg Woffington a Triplet

106 STANFIELD, CLARKSON, R.A., 6 Belsize-road, London

The property of Theoph. Burnand, Esq.

The Bay of Naples

Baie de Naples

Die Bai von Neapel

La Baia di Napoli

107 SPENCE, B., Villa Spence, Florence

The property of the Artist

A Bacchante

Bacchante

Eine Bacchantin

Baccante

108 STONE, FRANK, A.R.A. (the late)

The property of Thos. Baring, Esq., M.P.

'Bon jour, Messieurs!'

'Bon jour, Messieurs!'

'Bon jour, Messieurs!'

'Bon jour, Messieurs!'

The property of A. C. Burnand, Esq.

108A Marguerite at her Spinning-wheel

Marguerite filant au rouet

Gretchen am Spinnrad

Margherita al Mulinello

109 SYKES, GODFREY (the late)

The property of J. Firth, Esq.

Interior of a Sheffield Workshop

Intérieur d'un atelier à Sheffield

Das Innere einer Werkstatt in Sheffield

Interno di un' Officina a Sheffield

110 TENNANT, JOHN, Springfield-villa, Queen's-road, Richmond

The property of the Artist

The Last Drops after a Storm

Les dernières gouttes de pluie après l'orage

Der letzte Tropfen nach einem Sturm

Le ultime Gocce dopo una Burrasca

- 111 THOMAS, GEORGE HOUSMAN, Uplands, Surbiton, Surrey
The property of Her Majesty
 The Queen and Prince Consort at Aldershot
La Reine et le Prince Albert, à Aldershot
 Die Königin und der Prinz-Gemahl in Aldershot
La Regina e il Principe Consorte a Aldershot
- 112 THOMPSON, JACOB, The Hermitage, Hackthorpe, Penrith
The property of the Artist
 The Holiday—*Le jour de congé*
 Der Feiertag—*Giorno di Festa*
- 113 THORBURN, ROBERT, A.R.A., View-park, Lasswade, Edinburgh
The property of the Artist
 A Magdalene—*La Madeleine*
 Eine Magdalene—*Maddalena*
- 114 WALLIS, HENRY, 1 Westminster-chambers, London
The property of Samuel Withers, Esq.
 Chatterton—*Chatterton*—Chatterton—*Chatterton*
- 115 WALTON, JAS. T., 123 Walmgate, York
The property of the Artist
 A Scene near Algiers
Vue près d'Alger
 Eine Scene bei Algier
Scena presso Algeri
- 116 WARD, EDWARD M., R.A., Kent-villa, 1 Lansdowne-road, Notting-hill, London
The property of J. Pender, Esq.
 The Night of Rizzio's Murder
La nuit du meurtre de Rizzio
 Die Nacht von Rizzio's Ermordung
La Notte dell' Uccidio di Rizzio
- The property of the Artist*
- 116A Ante-room at Whitehall during the last Moments of Charles II.
Antichambre à Whitehall;—dernières heures du Roi Charles II.
 Das Vorzimmer in Whitehall während der letzten Augenblicke von Karl II.
Anticamera a Whitehall durante gli ultimi momenti di Carlo II.
- 117 WARD, HENRIETTA, 1 Lansdowne-road, Notting-hill, London
The property of A. Holtz, Esq.
 Palissy the Potter
Palissy le potier
 Palissy der Töpfer
Palissy il Vasellaio
- 118 WATKINS, B. COLLES, R.H.A., 77 Dame-street, Dublin
The property of the Artist
 Waterfall between Vossevangen and Vasenden, Norway
Chute d'eau entre Vossevangen et Vasenden (Norvège)
 Wasserfall zwischen Vossevangen und Vasenden, Norwegen
Cascata fra Vossevangen e Vasenden in Norvegia
- 119 WATTS, G. F., A.R.A., Little Holland House, Kensington, London
The property of Wm. Bowman, Esq.
 Orlando pursuing the Fata Morgana
Roland poursuivant le feu follet
 Roland verfolgt die Fata Morgana
Orlando che insegue la Fata Morgana
- The property of W. Bowman, Esq.*
- 119A Portrait of W. Bowman, Esq., F.R.S.
Portrait de M. W. Bowman, F.R.S.
 Portrait des Herrn W. Bowman, F.R.S.
Ritratto del Sig. W. Bowman (Membro della Società Reale)
- 120 WEBSTER, THOS., R.A., Cranbrook, Kent
The property of T. Bernard, Esq.
 Village Gossips
Les Commerces du Village
 Dorfgeschwätz
Pettegolezzi del Villaggio
- 121 WEIGALL, HENRY, 102 Piccadilly, London
The property of the Artist
 H.R.H. Alexandra, Princess of Wales
Portrait de S.A.R. la Princesse de Galles
 Ihre Königliche Hoheit Alexandra, Prinzessin von Wales
S.A.R. Alessandra Principessa di Galles
- The property of Viscountess Clifden*
- 121A Viscountess Clifden
Portrait de la Vicomtesse Clifden
 Viscountess Clifden
Viscontessa Clifden
- 122 WELLS, HENRY T., A.R.A., 17 Stratford-place, London
The property of the Artist
 Volunteers at a Firing Point, with portraits of Lt.-Col. the Hon. W. Colville, Lt.-Col. Lord Elcho, Lt.-Col. Halford, Capt. Drake, R.E., Capt. Horatio Ross, Capt. Heaton, Stewart Pixley, Martin R. Smith, and Edward C. Ross
Volontaires au tir—portraits
 Freiwillige auf dem Schiessstand—Portraits
Volontari in punto di far fuoco—diversi ritratti
- 123 YEAMES, WM. FREDK., A.R.A., 4 Grove-end-road, St. John's-wood, London
The property of O. Coope, Esq.
 Queen Elizabeth receiving the French Ambassadors, after the news of the Massacre of St. Bartholomew
Réception par la Reine Elisabeth des Ambassadeurs de France après avoir reçu la nouvelle de la Saint-Barthélemy
 Königin Elisabeth empfängt die Französischen Gesandten nach der Nachricht von der St. Bartholomäus-Nacht
La Regina Elisabetta che riceve gli Ambasciatori francesi dopo le notizie del Massacro di S. Bartolommeo
- The property of the Artist*
- 123A Il Sonetto
Il Sonetto
 Il Sonetto (das Ständchen)
Il Sonetto

CLASS II.

Water-colour Paintings and Drawings.

Aquarelles et Dessins.

Gemälde und Zeichnungen in Wasserfarben.

Acquerelli e Disegni.

(For detailed classification, see p. xiv.)

(*Voir le système de classification*, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione*, p. xiv.)

JUROR—MEMBRE DU JURY—
PREISRICHTER—GIURATO.

Hon. Spencer Cowper.

ASSOCIATE—ASSOCIÉ—
HÜLFSPREISRICHTER—ASSOCIATO.

S. Vincent, Esq.

- 1 ABSOLON, JOHN, 43 Aldridge-road Villas,
Westbourne-park, London

The property of the Artist

‘Kiss-in-the-ring’

Jeu anglais, dit ‘Kiss in the Ring’

Der Kuss in dem Ring (ein Spiel)

Il Bacio nel Circolo (giuoco popolare)

- 2 ANDREWS, GEORGE, The Cedars, New Brent-
ford, Middlesex

The property of F. White, Esq.

The Colosseum, Rome

Le Colisée à Rome

Das Colosseum zu Rom

Il Coliseo, Roma

- 3 BAILEY, J. W., 119 Blenheim-crescent,
Notting-hill, London

The property of the Artist

Twenty-one enamels of animals’ heads

Émaux. Têtes d’animaux

Ein und zwanzig Emaillen von Thierköpfen

Ventuno smalti di teste d’animali

- 4 BAYLISS, WYKE, Clapham-park-crescent,
London

The property of the Artist

La Sainte Chapelle

La Sainte Chapelle

Die heilige Capelle

La Santa Cappella

- 5 BENNETT, WILLIAM, Milford-lodge, New Park-
road, Brixton-hill, London

The property of W. Agar, Esq.

Richmond Hill; sunset

La colline de Richmond; soleil couchant

Der Hügel von Richmond; Sonnenuntergang

Richmond Hill; tramonto

The property of C. H. White, Esq.

- 5A The Shag Rock, South Devon

Le rocher Shag, comté de Devon (Sud)

Die Shag-Felsen, Süd-Devonshire

Il Shag Rock nel Sud Devon

- 6 BLUNDEN, MISS ANNA, The Close, Exeter

The property of the Artist

An English Lane

Sentier en Angleterre

Eine Englische Gasse

Una viottola inglese

- 7 BOWLER, HENRY ALEXANDER, 21 Pembroke-
square, Kensington, London

The property of the Artist

On the Lake of Lucerne, Switzerland

Sur le lac de Lucerne, la Suisse

Auf dem Lucerner See, Schweiz

Sul Lago di Lucerna, Svizzera

- 8 BOYCE, GEORGE PRICE, 14 Chatham-place,
London

The property of J. Stewart Hodgson, Esq.

At Binsey, near Oxford

A Binsey, près d’Oxford

Zu Binsey, bei Oxford

A Binsey, presso Oxford

- 10 BRETT, JOHN, 6 Pump-court, Temple,
London

The property of George Martineau, Esq.

A North-west Squall in the Mediterranean

*Coup de vent du nord-ouest dans la Méditer-
ranée*

Ein Nordwest-Wind im Mittelländischen Meer

Un Rifalo dal Nort-ovest nel Mediterraneo

- 11 BURGESS, JOHN, Wellington-house, Lea-
-mington

The property of the Artist

Yew Tree, Churchyard, Bettws-y-Coed, North
Wales

*If dans le cimetière de Bettws-y-Coed (pays de
Galles, Nord)*

Eibenbaum, Kirchhof, Bettws-y-Coed, Nord-
Wales

Tasso, cimitero di Bettws-y-Coed, Nord Galles

The property of the Artist

- 11A The Calvary at Pleyben, Brittany

Calvaire, à Pleyben en Bretagne

Der Kalvarienberg zu Pleyben, Bretagne

Il Calvario a Pleyben, Bretagna

- 12 CALLOW, WILLIAM, Great Missenden, Bucks

The property of the Artist

Falls of the Rhine at Schaffhausen

Chute du Rhin, à Schaffhouse

Der Rheinflall zu Schaffhausen

Cascade del Reno a Schaffhausen

The property of the Artist

- 12A Inverary—Inverary—Inverary—Inverary

- 13 CATTERMOLLE, GEORGE

The property of John Henderson, Esq.

The Saucy Page

Le page impertinent

Der unartige Page

Il Paggio impertinente

- 14 COLE, VICAT, Holmbury Cottage, Dorking

The property of E. F. White, Esq.

Evening—Soir

Abend—Sera

- 15 CORBOULD, EDWARD HENRY, 6 Prince of Wales'-terrace, Kensington-palace, London
The property of H.R.H. the Princess Louise
 'Morte d'Arthur' (Tennyson's poem)
 'Morte d'Arthur' (Poème de Tennyson)
 'Morte d'Arthur' (Tennyson's Gedicht)
 'Morte d'Arturo' (Poema di Tennyson)
- 16 COX (the late), DAVID
The property of David Cox, Esq., jun.
 Peat Gatherers
 Coupeurs de tourbes
 Torfstecher
 Raccoglitori di Torba
The property of H. G. Bateson, Esq.
- 16A SNOWDON, from Capel Curig
 Snowdon (montagne dans le pays de Galles)
 Snowdon, von Capel Curig
 Snowdon da Capel Curig
The property of David Cox, Esq., Jun.
- 16B GOING to Market
 Allant au marché
 Auf den Markt gehen
 Verso il Mercato
The property of David Cox, Esq., Jun.
- 16C DARLEY Churchyard
 Cimetière à Darley
 Der Kirchhof von Darley
 Cimitero di Darley
- 17 COX, DAVID, jun., 2 New Park-road, Brixton-hill, London
The property of W. J. Phillips, Esq.
 Pass of Llanberis
 Défilé de Llanberis
 Der Pass von Llanberis
 Passo del Llanberis
- 18 CRIDDLE, MRS. H., Addlestone, Weybridge, Surrey
The property of R. Hoare, Esq.
 Guinevere and Little Novice
 Guinevere et jeune Novice
 Genoveva und die kleine Novize
 Ginevra e la piccola Novice
- 19 DAVIDSON, CHARLES, The Laurels, Redhill, Reigate
The property of C. Prater, Esq.
 Spring Time
 Printemps
 Frühling
 Primavera
- 20 DODGSON, GEORGE, 1 St. Mark's-crescent, Regent's-park, London
The property of Thomas Parry, Esq.
 Crossing the Brook
 Passage du ruisseau
 Der Weg über den Bach
 La Traversata del Ruscello
The property of Mrs. Carl Haag
- 20A IN KNOLE Park
 Parc de Knole
 In Knole-Park
 In Knole Park
- 21 DUFFIELD, MRS. WILLIAM, 4 Upper Phillimore-gardens, Kensington, London
The property of A. Attwood, Esq.
 Rhododendrons and Rose Peony
 Rododendrons et pivoine
 Rhododendra und Peony-Rose
 Rododendri e Rosa Peonia
- 22 EGLEY, WILLIAM, 8 Montague-street, Portman-square, London
The property of the Artist
 La première Jeunesse
 La première Jeunesse
 Die erste Jugend
 La première Jeunesse
The property of the Artist
- 22A D. D. HOME LYON, Esq.
 M. Home Lyon
 D. D. Home Lyon, Esq.
 Il Sig. D. D. Home Lyon
- 23 EVANS, WILLIAM, Eton
The property of Rev. E. Balston
 The Gleam of Hope
 Le rayon d'espoir
 Der Glimmer von Hoffnung
 Un Barlume di Speranza
- 24 FAHEY, JAMES, 71 Cadogan-place, London
The property of Charles Prater, Esq.
 Watermouth, near Ilfracombe, Devon
 Watermouth, près d'Ilfracombe, comté de Devon
 Watermouth, bei Ilfracombe, in Devonshire
 Watermouth presso Ilfracombe, Devon
The property of the Artist
- 24A WHICHAM Mill, Cumberland
 Whicham Mill, comté de Cumberland
 Die Whicham-Mühle, in Cumberland
 Il Mulino di Whicham, Cumberland
- 25 FORD, WILLIAM B.
The property of the Artist
 Enamel. Mrs. Siddons, after T. Gainsborough, R.A.
 Mme. Siddons (actrice), d'après T. Gainsborough, R.A.
 Madame Siddons, nach T. Gainsborough, R.A.
 La Signora Siddons (dal quadro di T. Gainsborough)
The property of the Artist
- 25A Enamel. Alexander and Diogenes, after Sir E. Landseer, R.A.
 Alexandre et Diogène, d'après Sir E. Landseer, R.A.
 Alexander und Diogenes, nach Sir E. Landseer, R.A.
 Alessandro e Diogene (dal quadro di Sir Ed. Landseer)

27 GASTINEAU, HENRY, Camberwell, Surrey
The property of the Artist
 Pass of Killiecrankie, Scotland
Défilé de Killiecrankie, Écosse
 Der Killiecrankie-Pass, in Schottland
Passo del Killiecrankie, Scozia

28 GILBERT, JOHN
The property of C. L. Parker, Esq.
 The Venetian Council
Le conseil de Venise
 Der Rath von Venedig
Il Consiglio Veneto

29 GOODALL, EDWARD A., 3 Fitzroy-road,
 Regent's-park, London
The property of Joshua Dixon, Esq.
 London from below Bridge
Londres, en aval du pont
 London von unterhalb der Brücke
Londra al disotto dei Ponti

The property of the Artist
 29A The Houses of Parliament and Thames
 Embankment Works
Chambres du Parlement et travaux de l'en-
digement de la Tamise
 Das Parlaments-Gebäude und die Eindäm-
 mung der Themse
Palazzo del Parlamento e lavori dell'Argi-
namento del Tamigi

31 GRAY, GEORGE, 11, Chester-terrace, Eaton-
 square, London
The property of the Artist
Enamel. Uncle Toby and Widow Wadman,
 after C. R. Leslie, R.A.
Mon oncle Toby et la Veuve Wadman,
d'après C. R. Leslie, R.A.
 Onkel Toby und Wittwe Wadman, nach C.
 R. Leslie, R.A.
Lo Zio Toby e la Vedova Wadman (dal quadro
di C. B. Leslie, R.A.)

The property of the Artist
 31A *Enamel.* 'The Butt'—Shooting a Cherry—
 after William Mulready, R.A.
'Le but,' d'après W. Mulready, R.A.
 Der Scheibenstand—Schiessen nach einer
 Kirsche—nach William Mulready, R.A.
'Il Bersaglio'—il Tiro della Ciriogia (dal
quadro di W. Mulready, R.A.)

The property of the Artist
 31B *Enamel painting on porcelain, after the*
picture by W. Mulready, R.A., 'Choosing the
Wedding Gown'
Peinture sur porcelaine émaillée, d'après le
tableau 'Le Choix de la Robe de Noces,' par W.
Mulready, R.A.

Emaill-Gemälde auf Porcellan, nach dem
 Gemälde von W. Mulready, R.A., 'Die Wahl
 des Hochzeitskleids'
Pittura in porcellana smaltata, dal quadro
'Scelta dell' abito da Nozze' di W. Mulready,
R.A.

32 HAAG, CARL, 16 New Burlington-street,
 London
The property of Edmund Sibbeth, Esq.
 A Family of Wandering Arabs
Famille d'Arabes errants
 Eine wandernde Araber-Familie
Famiglia di Arabi nomadi

33 HAGHE, LOUIS, Fern-lodge, Stockwell-
 green, London
The property of Abraham Dixon, Esq.
 Church of St. Gomer, Lierre, Belgium
Eglise de St. Gomer, Lierre, Belgique
 Die Kirche von St. Gomer, Lierre, in Belgien
Chiesa di S. Gomer, Lierre, Belgio

34 HALL, GEORGE L., 28 Clifton-road, St.
 John's-wood, London
The property of A. W. Crichton, Esq.
 The Bass Rock
Le rocher Bass
 Der Bass-Felsen
La roccia Bass

35 HARRISON, MARIA, 115 Gloucester-terrace,
 Hyde-park, London
The property of the Artist
 Wild Roses
Roses sauvages
 Wilde Rosen
Rose selvatiche

36 HAYES, EDWIN, R.H.A., 18 Earl's-court-
 gardens, Old Brompton, London
The property of the Artist
 Marine view; Fishing Boats off Great Yar-
 mouth
Vue marine; Bateaux pêcheurs à la hauteur
de Great Yarmouth
 Seeansicht; Fischerböte von Great Yar-
 mouth
Marina; Barche pescareccie presso Great Yar-
mouth

38 HUNT, ALFRED WILLIAM, 21 Old Elvet,
 Durham
The property of Rev. W. Kingsley
 Snowdon after an April Hail-shower
Snowdon après la grêle en avril
 Snowdon nach einem Hagelschauer im April
Snowdon dopo una Grandine d'Aprile
The property of R. Bright, Esq.

38A Harlech Castle
Château de Harlech
 Schloss Harlech
Castello di Harlech

39 HUNT, WILLIAM (the late)
The property of W. Leaf, Esq.
 The Dead Peacock
Paon mort
 Ein todtter Pfau
Pavone morto

The property of Francis Fuller, Esq.
 39A Fruit—Fruits
 Frucht—Frutta

- 40 JOPLING, JOSEPH M., 130 Piccadilly, London
The property of the Artist
 Fredegonda—Frèdegonde
 Fredegonda—Fredegonda
- 41 LAMONT, T. R., 73 Denbigh-square, London
The property of W. H. Winsor, Esq.
 Bored to Death
 Ennuyé à la mort
 Zu Tode geärgert
 Secato a Morte
- 42 LEECH, JOHN (the late)
The property of Miss Leech
 Rotten Row and the Drive, 1851
 Rotten Row et la Promenade en voitures,
 1851
 Die Anlage zum Reiten und Fahren im Hyde-
 Park, 1851
 Rotten Row e il corso della carrozze, 1851
The property of Miss Leech
- 42A A Case of real Distress
 Accablé d'un véritable chagrin
 Ein wirkliches Unglück
 Caso di reale Afflizione
- 43 LEITCH, WILLIAM LEIGHTON, Seaforth-house,
 14 Abbey-road, St. John's-wood, London
The property of John Reid, Esq.
 Dee side; view near Balmoral
 Les rives de la Dee; vue près de Balmoral
 Dee side; Ansicht nahe bei Balmoral
 Presso il Dee; veduta nei dintorni di Balmoral
- 43A LEWIS, CHARLES J., Cheyne-house, Chel-
 sea, London
The property of the Artist
 Evening—Soir—Abend—Sera
- 44 LUNDGREN, EGRON, 13 Upper Phillimore-
 place, Kensington, London
The property of the Artist
 Interior of the Library at Siena
 Intérieur de la Bibliothèque à Siena
 Das Innere der Bibliothek zu Siena
 Interno della Libreria a Siena
- 45 MACCALLUM, ANDREW, 47 Bedford-gardens,
 Campden-hill, London
The property of the Artist
 The Old Bridge, Lucerne
 Vieux pont, à Lucerne
 Die alte Brücke zu Luzern
 Il Ponte Vecchio, Lucerna
- 46 MACLEAY, KENNETH, R.S.A.
The property of the Queen
 The Prince Consort
 Portrait du Prince Albert
 Der Prinz-Gemahl
 Ritratto del Principe Alberto
The property of the Queen
- 46A William Ross—Guillaume Ross
 Wilhelm Ross—Guglielmo Ross
The Property of the Queen
- 46B Angus Macdonell—Angus Macdonell
 Angus Macdonell—Angus Macdonell
- 47 MAPLESTONE, HENRY, 13 Earl's-court-
 gardens, Brompton, London
The property of the Artist
 An English Landscape; sunset
 Paysage anglais; soleil couché
 Eine Englische Landschaft; Sonnenuntergang
 Paesaggio inglese; tramonto
- 48 MARGETTS, MARY, 4 Park-place, Upper
 Church-street, Little Chelsea, London
The property of Mrs. Pender
 Gatherings from the Green-house
 Fleurs de serre
 Blumen gesammelt im Treibhause
 Raccolte di serra
- 49 MAWLEY, GEORGE, 40 Gower-street, London
The property of J. J. Broadbent, Esq.
 Interior of an old Barn
 Intérieur d'une vieille grange
 Das Innere einer alten Scheuer
 Interno di vecchio Granaio
- 50 McKEWAN, DAVID Hall, Upper Park-road,
 Haverstock-hill, London
The property of A. Ackerman, Esq.
 The Valley of Desolation, Bolton Park, York-
 shire
 La vallée de Désolation, Bolton Park, comté de
 York
 Das Thal der Verwüstung, Bolton-Park, in
 Yorkshire
 La Valle della Desolazione, Bolton Park, York-
 shire
The property of G. A. Lowndes, Esq.
- 50A Watching the Trout
 Guettant les truites
 Das Warten auf die Forelle
 Attento alla Trota
- 51 MOGFORD, JOHN, Brecknock-house, Breck-
 nock-crescent, Camden-road, London
The property of the Artist
 An Easterly Gale, Manacle Rocks, Falmouth
 Bay
 Vent de l'est, Manacle Rocks, Baie de Fal-
 mouth
 Ein Ostwind, die Manacle-Felsen, in Fal-
 mouth-Bai
 Vento fresco di Levante, Roccie Manacle, Fal-
 mouth
- 52 MOIRA, EDWARD, 1 Lower Seymour-street,
 Portman-square, London
The property of the Artist
 H.R.H. The Princess Alice of Hesse
 S.A.R. la Princesse Alice de Hesse
 Ihre Königliche Hoheit die Prinzessin Alice
 von Hessen
 S.A.R. la Principessa Alice di Assia
- 53 MOLE, J. H., 6 Lamb's-conduit-place,
 Guildford-street, London
The property of Eli Lees, Esq.
 Mussel Gatherers
 Les pêcheurs de moules
 Muschelsammler
 Pescatori di Mitili

- The property of George Gurney, Esq., Jun.*
53A On the coast near Tynemouth, Northumberland
Côte près de Tynemouth, comté de Northumberland
 An der Küste nahe bei Tynemouth, in Northumberland
Sulla Costa presso Tynemouth, Northumberland
- 54** MORNEWICK, CHARLES AUGUSTUS, 3 Princes-terrace, Regent's-park-road, London
The property of the Artist
 A Water-spout at Sea
Trombe en mer
 Eine Wasserhose auf der See
Tromba di Mare
- 55** NEWTON, ALFRED P., 44 Maddox-street, Regent-street, London
The property of Alfred Morrison, Esq.
 Mountain Glory
Paysage—montagnes
 Gebirgspracht
Gloria montana
The property of — Wilson, Esq.
- 55A** The Approach of Winter, Argyleshire
L'approche de l'hiver, en Ecosse
 Die Ankunft des Winters, Argyleshire
L'Avvicinarsi dell' Inverno, Argyleshire
- 56** OAKES, J. WRIGHT, 28 Victoria-road, Kensington, London
The property of the Artist
 The Yew-tree's Shade
Ombra de l'if
 Der Schatten des Eibenbaumes
L' Ombra di un Tasso
- 57** OLIVER, MRS. W., Watford, Herts
The property of the Artist
 Near Minster, Kent
Près de Minster, comté de Kent
 Nahe bei Minster, in Kent
Presso Minster, in Kent
- 58** PATON, WALLER H., R.S.A., Rosehall-lodge, Edinburgh
The property of A. C. Campbell, Esq.
 The Dhulochan
Le Dhulochan—paysage en Écosse
 Der Dhulochan (Schottland)
Il Dhulochan (Scozia)
- 59** PALMER, SAMUEL, Furze-hill-house, Mead-vale, Redhill, Surrey
The property of I. R. Valpy, Esq.
 The Early Ploughman
Laboureur matinal
 Der frühe Pflüger
Il Bifolco mattutino
The property of L. R. Valpy, Esq.
- 59A** Lycidas—*Lycidas—Lycidas—Licida*
The property of L. R. Valpy, Esq.
- 59B** The Chapel by the Bridge
La chapelle près du pont
 Die Capelle bei der Brücke
La Cappella presso il Ponte
- 60** PHILLIPS, H. WYNDHAM, 8 George-street, Hanover-square, London
The property of the Artist
 Arab Head
Tête d'Arabe
 Araberkopf
Testa Araba
- 61** READ, SAMUEL, 55 Argyle-road, Kensington London
The property of Thomas Lucas, Esq.
 Interior of St. Stephen's, Vienna
Vue de l'intérieur de St.-Etienne, à Vienne
 Das Innere der St. Stephens-Kirche zu Wien
Interno di S. Stefano, Vienna
- The property of Charles Lucas, Esq.*
61A Interior of the Church of St. Gomer, Lierre, Belgium
Vue de l'intérieur de l'Église de St.-Gomer, Lierre, Belgique
 Das Innere der Kirche zu St. Gomer, Lierre, in Belgien
Interno della Chiesa di S. Gomer, Lierre, Belgio
- 62** REDGRAVE, RICHARD, R.A., 18 Hyde-park-gate South, London
The property of the Artist
 The Yew-tree's Shade
Ombra de l'if
 Der Schatten des Eibenbaumes
L' Ombra di un Tasso
- 63** RICHARDSON, THOMAS MILES, 18 Porchester-terrace, Hyde-park, London
The property of W. C. Hewitson, Esq.
 Scene in Glenco, Argyleshire
Le défilé de Glenco, en Écosse
 Scene in Glenco, in Argyleshire
Scena in Glenco, Argyleshire
- 64** RIVIERE, HENRY PARSONS, 17 Kilburn-priory, London
The property of the Artist
 Campagna of Rome
Campagna à Rome
 Die Campagna zu Rom
Campagna di Roma
The property of the Artist
- 64A** Holy Thoughts—*Saintes pensées*
 Heilige Gedanken—*Pensieri santi*
- 66** ROSS, SIR WILLIAM (the late)
The property of Madame T. Ralli
 The Three Children of Madame T. Ralli
Les trois enfants de Madame T. Ralli
 Die drei Kinder der Madame T. Ralli
I tre Figli di Madame T. Ralli
- 67** ROWBOTHAM, J. L., Percy-lodge, Camden-hill, London
The property of William Miller, Esq., M.P.
 Amalfi—*Amalfi—Amalfi—Amalfi*
The property of S. B. Fuller, Esq.
- 67A** Ischia—*Ischia—Ischia—Ischia*

- 68 SCHETKY, JOHN CHRISTIAN, 11 Kent-terrace, Regent's-park, London

The property of The Hon. A. Pennington
 H.B.M.S. Bellerophon Scudding in a Gale
Le Bellerophon (vaisseau de la Marine Royale)
courant vent arrière
 Das Englische Kriegsschiff Bellerophon in einem Sturm
La Nave Reale Bellerofonte che corre la fortuna di un vento fresco

- 69 SEVERN, ARTHUR, 24 Gower-street, Bedford-square, London

The property of Charles Buxton, Esq., M.P.
 Waves by Moonlight
Vagues au clair de la lune
 Wellen bei Mondschein
Onde al chiaro di luna

- 70 SMALLFIELD, FREDERICK, 15 Greville-place, Kilburn-priory, London

The property of the Artist
 The Slave of the Fishpond
L'esclave du vivier
 Der Sklave des Fischteiches
Lo Schiavo della Peschiera

The property of the Artist

- 70A Tartini—Tartini—Tartini—Tartini

The property of the Artist

- 70B The Blind Goatherd—*Le chevrier aveugle*
 Der blinde Ziegenhirt—*Il Capraio ceco*

- 71 SMITH, COLLINGWOOD, Wyndham-lodge, Brixton-hill, London

The property of the Artist
 Sunset; Grand Canal, Venice
Grand Canal de Venise; soleil couché
 Sonnenuntergang; der grosse Canal zu Venedig
Tramonto; Canal Grande, Venezia

The property of the Artist

- 71A The Lake of Como, from Bellagio, Serbelloni Villa
Le lac de Côme
 Der Como See, von Bellagio, aus der Serbelloni Villa
Lago di Como, da Bellagio, Villa Serbelloni

- 72 SYKES, GODFREY (the late)

The property of the Science and Art Department
 A Smith's Shop—*Atelier de forgeron*
 Die Schmiede—*Officina di Fabbro*

The property of G. Atkin, Esq.

- 72A Endcliffe (a study)
Endcliffe (étude)
 Endcliffe (eine Studienzeichnung)
Endcliffe (studio)

- 73 TAYLER, FREDERICK, 4 Horbury-crescent, Notting-hill, London

The property of Frederick Craven, Esq.
 The Heron brought down in the Village
Le héron abattu dans le village
 Der im Dorfe geschossene Reiher
L'airone preso nel villaggio

The property of E. F. White, Esq.

- 73A Nan Gwynant, North Wales; Collecting the Flocks
Nan Gwynant, pays de Galles, Nord; rassemblement du troupeau
 Nan Gwynant, in North Wales; das Sammeln der Herden
Nan Gwynant, Nord Galles; radunamento dei greggi

The property of George Schotel, Esq.

- 73B The Mistress of the Buckhounds
La Grande Veneuse
 Die Herrin der Jagdhunde
La Gran Maestra delle Cacce

The property of Joseph de Murietta, Esq.

- 73C Highland Sport
La chasse en Écosse
 Vergnügungen der Hochländer
La Caccia in Scozia

- 74 TIDEX, HENRY, 30 Percy-street, Bedford-square, London

The property of The Duke of Manchester
 Dar-Thula — Dar-Thula — Dar-Thula — Dar-Thula

The property of Francis Fuller, Esq.

- 74A Christ Blessing Little Children
Le Christ bénissant les enfants
 Christus segnet die kleinen Kinder
Cristo che benedice i Fanciulli

- 75 TILT, FREDERICK, 114 New Bond-street, London

The property of Gilbert Dickinson, Esq.
 H. R. H. The Princess Mary of Teck
Portrait de S.A.R. la Princesse Marie de Teck
 Ihre Königliche Hoheit die Prinzessin Mary von Teck
S.A.R. La Principessa Maria di Teck

The property of Gilbert Dickinson, Esq.

- 75A The Marchioness of Hastings
Portrait de la Marquise de Hastings
 Die Marquise von Hastings
La Marchesa di Hastings

- 76 TOPHAM, F. W., Warwick-house, 86 Adelaide-road, London

The property of the Artist
 A Feast Day in Connemara
Jour de fête en Connemara, Irlande
 Ein Festtag in Connemara
Giorno di Festa in Connemara

- 77 VACHER, CHARLES, 4 The Boltons, West Brompton, London

The property of Joseph Woodman, Esq.
 Salvator Rosa among the Brigands
Salvator Rosa entre les mains des brigands
 Salvator Rosa unter den Räubern
Salvator Rosa fra i Briganti

- 78 WALKER, FREDERICK

Subject from Thackeray's 'Philip'
Sujet tiré de 'Philip,' roman par Thackeray
 Eine Scene aus Thackeray's 'Philip.'
Soggetto tratto dal 'Filippo' di Thackeray

79 WALTON, FRANK, 17 Nassau-street, Middlesex-hospital, London

The property of Henry Evill, Esq.

Evening; near Dorking, Surrey

Soir; près de Dorking, comté de Surrey

Abend; nahe bei Dorking, in Surrey

Sera; presso Dorking, in Surrey

The property of Wickham Flower, Esq.

79A Medmenham on Thames

Medmenham, sur la Tamise

Medmenham, an der Themse

Medmenham, sul Tamigi

80 WARREN, ALBERT H., New-court, Temple, London

The property of the Artist

'Ave Maria'—'*Avé Maria*'

'Ave Maria'—'*Ave Maria*'

81 WARREN, EDMUND G., 29 Upper Phillimore-place, Kensington, London

The property of S. Morby, Esq.

First Notes of the Cuckoo

Le premier chant du coucou

Der erste Ruf des Kuckuks

Prime Note del Cuculo

The property of W. F. White, Esq.

81A Wood Scene—*Scène de forêt*

Waldscene—*Scena boschiva*

The property of W. F. White, Esq.

81B Cornfield—*Champ de blé*

Kornfeld—*Campo di Grano*

82 WARREN, HENRY, 24 Upper Phillimore-place, Kensington, London

The property of the Artist

Song of the Georgian Maiden (from Moore's 'Light of the Harem')

La chanson de la jeune Géorgienne ('La Lumière du Harem'—Moore)

Der Gesang des Georgischen Mädchens (zu Moore's 'Licht des Harems')

Il Canto della Fanciulla Georgiana (dalla 'Luce del Harem,' di Moore)

The property of Her Majesty the Queen

82A The Great Pyramid

La Grande Pyramide

Die grosse Pyramide

La Gran Piramide

83 WEHNERT, EDWARD HENRY, 12a Park-village west, Regent's-park, London

The property of Henry Watts, Esq., F.R.S.

George Fox, preaching in a Tavern

George Fox prêchant dans un cabaret

George Fox, predigend in einem Wirthshaus

Giorgio Fox che predica in una Taverna

The property of the Artist

83A Shylock and Jessica

Shylock et Jessica (Shakspeare)

Shylock und Jessica

Shylock e Jessica

84 WEIGALL, ALFRED, 8 Clarendon-road, Kensington, London

The property of the Artist

Portrait of a Lady—*Portrait d'une dame*

Portrait einer Dame—*Ritratto di una Signora*

The property of the Artist

84A Mrs. Algernon de Horsey

Portrait de Madame A. de Horsey

Madame Algernon de Horsey

La Signora Algernon de Horsey

85 WEIR, HARRISON, 11 Lyndhurst-villas, Lyndhurst-road, Peckham, London

The property of George Gurney, Esq.

The Morning Hymn—*Hymne du matin*

Der Lobgesang am Morgen—*L'Inno mattutino*

The property of George Gurney, Esq.

85A The Noontide Song

Chanson de l'heure de midi

Der Nachmittags-Gesang

La Canzone del Mezzodi

86 WELLS, HENRY T., A.R.A., 17 Stratford-place, London

The property of the Artist

Portraits, a Family Group

Portraits de famille

Portraite, eine Familiengruppe

Ritratti, gruppo di Famiglia

The property of the Artist

86A Alice T. Wells—*Alice T. Wells*

Alice T. Wells—*Alice T. Wells*

87 WERNER, CARL, Arts Club, 17 Hanover-square, London

The property of the Artist

Interior of the Duomo di Spalatro, in Dalmatia, once the Temple of Jove

Vue intérieure du Duomo de Spalatro, en Dalmatie, jadis Temple de Jupiter

Das Innere des Domes Spalatro in Dalmatien, einstmals der Tempel Jupiters

Interno del Duomo di Spalatro in Dalmazia, già Tempio di Giove

The property of the Artist

87A Interior of the Armoury in the Castle Wartburg; Choosing a Sword

Vue intérieure de l'arsenal du château Wartburg; choisissant son épée

Das Innere des Zeughauses auf der Wartburg; die Wahl des Schweres

Interno dell' Armeria nel Castello Wartburg; lo Scelta di una Spada

88 WHITTAKER, J. W., Ffirth-cottage, Lanrwst, North Wales

The property of H. Roberts, Esq.

Snow-storm, Llyn Idwal

Neige (pays de Galles)

Der Schneesturm, Llyn Idwal

Burrasca di Neve, Llyn Idwal

The property of H. Roberts, Esq.

88A Old Welsh Bridge; storm coming on

Vieux pont (pays de Galles); l'orage approche

Eine alte Brücke in Wales; der drohende Sturm

Antico Ponte gallese; burrasca che viene

89 WHYMPER, J. W., Town-house, Haslemere

The property of Robert Clark, Esq.

The River Tees, at Wycliffe

La Tees, à Wycliffe

Der Tees-Fluss, nahe bei Wycliffe

Il Fiume Tees, a Wycliffe

The property of George Cairns, Esq.

89A Hurried Loading; Hay-fields in showery Weather

Chargeant le foin à la hâte; temps pluvieux
Das beeilte Aufladen; Heumachen in Regenwetter

Fretta nel caricare; campi di fieno in tempo piovoso

90 WILLIS, H. BRITTAN, 6 Palace-gardens-terrace, Kensington, London

The property of R. G. McIlraith, Esq.

A Scene in the Western Highlands of Scotland

Scène des Highlands de l'ouest de l'Ecosse

Eine Scene im westlichen Hochlande Schottlands

Scena negli Altipiani occidentali della Scozia

The property of G. Redmayne, Esq.

90A A Harvest Scene in Sussex

Temps de la moisson, comté de Sussex

Eine Erntescene in Sussex

Scena della Messe nel Sussex

Mosaics (App. p. 2.)

Mosaïques.

Mosaiken.

Mosaici.

91 ALLDRIDGE, W. E., South Kensington Museum, London

Spandrel executed in Minton's earthenware tesserae, after a design by the late Godfrey Sykes

Tympan exécuté en tessères de faïence de Minton, d'après un dessin par feu Godfrey Sykes

Spandrel in Minton's Tessera (einer Art Mörtel) ausgeführt nach einem Entwurf des verstorbenen Godfrey Sykes

Triangolo ad un lato semiarcurato eseguito in tessera di terraglia di Minton da un disegno del fu Godfrey Sykes

92 COLE, MISS, The Residences, South Kensington Museum

Portrait of Gascoyne Marquess of Salisbury, executed in Minton's earthenware tesserae

Portrait de Gascoyne, Marquis de Salisbury, exécuté en tessères de faïence de Minton

Portrait von Gascoyne, Marquis von Salisbury, in Minton's Tessera ausgeführt

Ritratto di Gascoyne Marchesa di Salisbury, eseguito in tessera di terraglia di Minton

93 COLE, MISS; ALLDRIDGE, W. E.; and COOPER, SAMUEL, South Kensington Museum, London

Fra Beato Angelico, executed in Minton's earthenware tesserae, after a design by C. W. Cope, R.A.

Fra Beato Angelico, exécuté en tessères de faïence de Minton, d'après un dessin de C. W. Cope, R.A.

Fra Beato Angelico, ausgeführt in Minton's Tessera nach einem Entwurf von C. W. Cope, R.A.

Fra Beato Angelico, eseguito in tessera o cubo di terraglia di Minton da un disegno da C. W. Cope, R.A.

94 HARLAND & FISHER, 33 Southampton-street, Strand, London

Phidias, executed in English glass tesserae, after a design by J. Poynter

Phidias, exécuté en tessères de verre anglais, d'après le dessin de J. Poynter

Phidias, in Glas-Tessera Ausgeführt, nach einem Entwurf von J. Poynter

Phidias, eseguito in tessera di vetro inglese da un disegno di J. Poynter

CLASS III.

Sculpture and Die-Sinking.

Sculptures et Gravures sur Médailles.

Bildhauerarbeit und Stempelschneidekunst.

Scultura e Incisione a Conio.

(For detailed classification see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

A. H. Layard, Esq. M.P.

ASSOCIATE—ASSOCIÉ

HULFSPREISRICHTER—ASSOCIATO.

W. Calder Marshall, Esq., R.A.

1 ADAMS, G. G., 126 Sloane-street, London

The property of the Artist

H.S.H. Prince Teck, a plaster bust

S.A.S. Le Prince Teck, buste, plâtre

Seine Durchlaucht Prinz Teck, eine Gips-Büste

S.A.S. il Principe Teck, busto in gesso

The property of the Artist

The late Viscount Palmerston, bust

Feu le Vicomte Palmerston, buste

Der verstorbene Vicomte Palmerston, Büste

Il fu Visconte Palmerston, busto

2 DAVIS, WILLIAM, 208 Euston-road, London

The property of the Artist

Statuette of Clymene, plaster

Statuette de Clymène, plâtre

Statuette der Clymene, Gips

Statuetta di Climene, gesso

3 DURANT, SUSAN, 3 Bryanston-place, Bryanston-square, London

The property of the Queen.

Medallion portraits of Members of the Royal Family, forming part of the decoration of the Wolsey Chapel

Médallions, portraits de Membres de la Famille Royale, faisant partie de la décoration de la chapelle de Wolsey

Medallion-Portraits der Mitglieder der königlichen Familie, Theile der Verzierungen der Wolsey-Capelle

Ritratti a medaglione di membri della Famiglia Reale, che fanno parte del decoramento della capella di Wolsey

The property of Madame B. Delessert

3A Bust of Mons. H. de T.

Bust de M. H. de T.

Büste des Herrn H. de T.

Busto del Sig. H. de T.

4 EPINAY, P. DE, Rome

The property of the Duc de Chevreuse

Innocence, marble statue

L'Innocence, statue, marbre

Unschuld, Marmor-Statue

*L'Innocenza, statua in marmo**The property of the Artist*

4A Transteverina, marble bust

Transtéverine, buste, marbre

Transteverina, Marmor-Büste

*Trasteverina, busto in marmo**The property of the Artist*

4B Asunta, wife of Dambrosio la Ruella, brigand condemned at Rome on November 28, 1865—marble bust

Asunta, femme de Dambrosio la Ruella, brigand condamné à Rome le 28 nov. 1865—buste, marbre

Asunta, die Frau des Dambrosio la Ruella, eines am 28. November 1865 zu Rom verurtheilten Räubers—Marmor-Büste

Asunta, moglie di Dambrosio la Ruella, brigante giustiziato a Roma il 28 novembre 1865—busto in marmo

5 FOLEY, J. H., R.A., 10 Osnaburgh-street, Regent's-park, London

The property of the Art Union of London
Caractacus, a statuette—*Caractacus, statuette*
Caractacus; Statuette—*Caractaco, statuetta*

6 GAMBLE, J., South Kensington Museum, London

Figures of Davy, Newton, Watt, Bramanti, Michael Angelo, and Titian, modelled after sketches left by the late Godfrey Sykes, for bronze doors in the South Kensington Museum; models of figures for a majolica column

Davy, Newton, Watt, Bramanti, Michel-Ange, et le Titien, modèles d'après les ébauches de feu Godfrey Sykes pour portes de bronze pour le Musée de South Kensington; modèles de figures pour une colonne de majolique

Figuren von Davy, Newton, Watt, Bramanti, Michael Angelo und Titian, modellirt nach Skizzen hinterlassen von dem verstorbenen Godfrey Sykes, für Bronze-Thüren in dem South Kensington Museum; Modelle von Figuren für eine Majolica Säule

Figure di Davy, Newton, Watt, Bramante, Michelangelo, e Tiziano, modellate dai bozzetti lasciati del fu Godfrey Sykes per porte di bronzo nel Museo, South Kensington, modelli e figure per una colonna in maiolica

7 GARDIE, LOUIS, Bath, Somerset

The property of the Artist

The late Captain Speke, a bronze bust

*Feu le Capitaine Speke, buste, bronze*Der verstorbene Captain Speke; Bronzebüste
Il fu Capitano Speke, busto in bronzo

8 LAWLOR, JOHN, 101 Stanhope-street, Hampstead-road, London

The property of the Artist

The Fugitive, statue in plaster

Le Fugitif, statue, plâtre

Der Flüchtling, Gipsfigur

La Fuggitiva, statua in gesso

9 MUNRO, ALEXANDER, 6 Upper Belgrave-place, London

The property of the Artist

Boy asleep, plaster alto rilievo

Enfant endormi, haut relief, plâtre

Der schlafende Knabe, im Hoch-Relief in Gips

*Fanciullo dormiente, alto rilievo in gesso**The property of the Artist*

9A Joan of Arc, plaster bust

Jeanne d'Arc, buste, plâtre

Johanna d'Arc, Gips-Büste

*Giovanna d'Arco, busto in gesso**The property of the Artist*

9B Medallion of the Duchesse de Vallombrosa

La Duchesse de Vallombrosa; médaille, marbre

Marmor-Medaillon der Herzogin von Vallombrosa

Medaglione in marmo della Duchesa di Vallombrosa

10 STEPHENS, EDWARD, A.R.A., 27 Upper Belgrave-place, London

The property of the Art Union of London

Mercy, a statuette

La Miséricorde, statuette

Mitleiden, eine Statuette

La Misericordia, statuetta

11 TOWNROE, REUBEN, South Kensington Museum, London

Figures of Davy, Newton, Watt, Bramanti, Michael Angelo, and Titian, modelled after sketches left by the late Godfrey Sykes, for bronze doors in the South Kensington Museum; models of figures for a majolica column

Davy, Newton, Watt, Bramanti, Michel-Ange, et le Titien, modèles d'après les ébauches de feu Godfrey Sykes pour portes de bronze pour le Musée de South Kensington; modèles de figures pour une colonne de majolique

Figuren von Davy, Newton, Watt, Bramanti, Michael Angelo, und Titian, modellirt nach Skizzen hinterlassen von dem verstorbenen Godfrey Sykes für Bronze-Thüren in dem South Kensington Museum; Modelle von Figuren für eine Majolica-Säule

Figure di Davy, Newton, Watt, Bramante, Michelangelo, e Tiziano, modellate da bozzetti lasciati dal fu Godfrey Sykes per porte di bronzo nel Museo South Kensington, modelli di figure per una colonna in maiolica

12 WESTMACOTT, J. S., 14 St. George's-road, Eccleston-square, London

The property of the Artist

Model for statue of Alexander the Great

*Alexandre le Grand, statue, modèle*Modell für eine Statue Alexanders des Grossen
Modello per statua d'Alessandro il Grande

13 WYON, E. W., 19 Stanhope-street, Hampstead-road, London

The property of the Artist

William Fairbairn, Esq., D.C.L., plaster bust of the marble in possession of W. Fairbairn, Esq.

- Monsieur W. Fairbairn, D.C.L., buste, plâtre, d'après le buste en marbre qui lui appartient*
 William Fairbairn, Esq., D.C.L., Gips-Büste nach dem Marmor im Besitz des W. Fairbairn, Esq.
Il Signor William Fairbairn, D.C.L., busto in gesso dal marmo posseduto dal Sig. W. Fairbairn
- 14 WOOLNER, T., 29 Welbeck-street, Cavendish-square, London
 Bust in terra cotta of the late Capt. Fowke, R.E.
Feu le Capitaine Fowke, du Génie Royal, buste, terra cotta
 Der verstorbene Capitän Fowke, R.E., Büste in Terra-Cotta
Il fu capitano Fowke, del genio militare, busto, terra cotta
- 15 WYON, J. S. & A. B., 287 Regent-street, London
 Medals—*Medailles*—Medaillen—*Medaglie*
- 16 WOOD, MARSHALL, 17 Osnaburgh-street, London
 The Song of the Shirt; marble
Chanson de l'ouvrière accablée de fatigue; marbre
 Gesang der müden Näherin; Marmor
Canzone della cucitrice rifinita dalla fatica; marmo
 Busts of the Prince and Princess of Wales
Le Prince et la Princesse de Galles; bustes
 Der Prinz und die Prinzessin von Wales; Büsten
Il Principe e la Principessa di Galles; busti

CLASS IV.

Architectural Designs and Models.

Dessins et Modèles d'Architecture.

Architectonische Entwürfe und Modelle.

Progetti e Modelli Architettionici.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

James Fergusson, Esq.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

Lieut.-Col. Scott, R.E.

- 2 BANKS & BARRY, 1 Westminster-chambers, Victoria-street, London
- 1 Design submitted in competition for New Assize Courts, Manchester
Dessin admis au concours pour la nouvelle Cour des Assises, à Manchester
 Eingereichter Competitions-Entwurf für die neuen Gerichtsgebäude zu Manchester
Progetto sottomesso al concorso pella nuove Corti delle Assise a Manchester
- 2 View of the new buildings forming the 'Piazza dello Statuto,' Turin, now in course of erection

Vue des nouveaux bâtiments formant la 'Piazza dello Statuto,' à Turin, actuellement en construction

Ansicht der neuen Gebäude, die die 'Piazza dello Statuto' zu Turin bilden, gegenwärtig im Bau begriffen

Veduta dei nuovi edifizii formanti la 'Piazza dello Statuto' ora in costruzione a Torino

- 3 BARRY, CHARLES, 1 Westminster-chambers, Victoria-street, Westminster
- 3 View of the exterior of a design for the Memorial to the late Prince Consort, proposed to be erected in Hyde-park
Vue de l'extérieur d'un dessin projeté pour le Monument élevé à la mémoire de feu le Prince Albert, dans Hyde-park
 Ansicht der Aussenseite eines Entwurfes für das Denkmal des verstorbenen Prinzgemahls, das im Hyde-park errichtet werden soll
Veduta esterna di un progetto pel Monumento al fu Principe Consorte da erigersi in Hyde-park
- 4 View of the interior of same
Intérieur de ce monument
 Ansicht des Innern desselben
Veduta interna del medesimo
- 4 BARRY, EDWARD M., A.R.A., 1 Old Palace-yard, Westminster
- 5 Crypt of St. Stephen's, Westminster (restored)
Crypte de St. Étienne, à Westminster (restaurée)
 Die St. Stephens-Gruft zu Westminster (restaurirt)
Cripta della chiesa di Sto. Stefano a Westminster (restaurata)
- 6 Schools for the parish of St. Giles's, London
Bâtiments d'Écoles pour la paroisse de St. Giles, à Londres
 Schulen für das Kirchspiel von St. Giles in London
Scuole pella parrocchia di S. Giles a Londra
- 7 Hotel, Cannon-street, London
Hôtel, Cannon-street, à Londres
 Hotel, in Cannon-street, zu London
Hôtel, Cannon-street, Londra
- 5 BRANDON, DAVID, F.S.A., 24 Berkeley-square, London
- 8 Hemsted-house, Kent
Hemsted-house, comté de Kent
 Hemsted-house, in Kent
Hemsted House, Kent
- 9 Chilham Castle, Kent
Château de Chilham, comté de Kent
 Schloss Chilham, in Kent
Chilham Castle, Kent
- 10 Taverham Hall, Norfolk
Taverham Hall, comté de Norfolk
 Taverham Hall, in Norfolk
Taverham Hall, Norfolk
- 6 BRODERICK, CUTHBERT, 14 Buckingham-street, Strand, London
- 11 View of Town Hall, Leeds
Hôtel de Ville, à Leeds
 Ansicht des Rathhauses zu Leeds
Veduta del Palazzo Comunale, Leeds

- 7 BURGESS, WILLIAM, 15 Buckingham-street, Strand, London
- 12 View of the interior of east end of Waltham Abbey
Vue de l'intérieur de l'Abbaye de Waltham (partie Est)
Ansicht des Innern des östlichen Endes der Abtei zu Waltham
Veduta interna dell'estremità orientale della Badia di Waltham
- 13 Guardrobe at Gayhurst
Garderobe à Gayhurst
Garderobe zu Gayhurst
Guardaroba a Gayhurst
- 8 CHANCELLOR, FREDERIC, Pinner's Hall, Old Broad-street, London
- 14 White Hart Inn, Chelmsford, Essex
Auberge White Hart, à Chelmsford, comté d'Essex
Gasthaus zum Weissen Hirsch, zu Chelmsford, in Essex
Albergo del Cervo Bianco a Chelmsford, Essex
- 9 CLARKE, GEORGE SOMERS, 20 Cockspur-street, London
- 15 A printing establishment in Smithfield, London (now taken down)
Imprimerie à Smithfield, Londres (récemment démolie)
Eine Buchdruckerei zu Smithfield, in London (jetzt abgebrochen)
Stabilimento tipografico in Smithfield, Londra (ora demolito)
- 16 Interior of chapel of the Merchant-Seamen's Orphan Asylum, near London
Vue de l'intérieur de l'Eglise de l'Asile pour les Orphelins des Marins des bâtiments de Commerce (près de Londres)
Das Innere der Capelle im Waisenhaus der Handelsmatrosen, bei London
Interno della Cappella dell'orfanotrofio dei Marinari mercantili
- 10 CLARKE, JOSEPH, F.S.A., 13 Stratford-place, Oxford-street, London
- 17 View of Church at Galle, Ceylon
Vue de l'Eglise à Galle, Ile de Ceylon
Ansicht der Kirche zu Galle, in Ceylon
Veduta di chiesa a Galle, Ceylon
- 18 View of Church at Heywood, Lancashire
Vue de l'Eglise à Heywood, comté de Lancaster
Ansicht der Kirche zu Heywood, in Lancashire
Veduta di chiesa a Heywood, Lancashire
- 11 COCKERELL, CHARLES ROBERT, R.A. (the late, Professor of Architecture at the Royal Academy, London)
- 19 Sculpture in pediment of St. George's Hall, Liverpool
Fronton sculpté de la Salle St. George, à Liverpool
Sculptur im Thürgiebel der St. George's-Halle zu Liverpool
Scultura nel frontone dell'Aula di S. Giorgio a Liverpool
- 12 COCKERELL, FREDERICK PEPYS, Carlton-chambers, 8 Regent-street, London
- 20 View of Freemasons' Hall, London
Vue de la Salle des Francs-maçons, à Londres
Ansicht der Freimaurer-Halle zu London
Veduta dell'Aula dei Liberi Muratori a Londra
- 13 COLLMAN, LEONARD W., 53 George-street, Portman-square, London
- 21 Coloured decoration of Assyrian Court at Crystal Palace, Sydenham—(architecture by James Fergusson, F.R.S.)
Décorations murales de la Salle Assyrienne au Palais de Cristal, à Sydenham
Gemalte Decoration im Assyrischen Hofe des Crystallpalastes zu Sydenham—(die Architectur ist von James Fergusson, F.R.S.)
Decoramento colorato del compartimento assiro al Palazzo di Cristallo a Sydenham—(architettura di J. Fergusson, F.R.S.)
- 14 DONALDSON, THOMAS LEVERTON, Ph.D., late Professor of Architecture at University College, London), 21 Upper Bedford-place, Russell-square, London
- 22 View of exterior of a memorial to the Prince Consort, in Hyde-park
Vue de l'extérieur d'un monument à la mémoire du Prince Albert, dans Hyde-park
Ansicht der Aussenseite des Denkmals des Prinz-Gemahls im Hyde-park
Veduta esterna del Monumento al Principe Consorte in Hyde-park
- 23 View of interior of same
Intérieur de ce monument
Innere Ansicht desselben
Veduta interna del medesimo
- 15 EDIS, ROBERT W., 4 Osnaburgh-terrace, Regent's-park, London
- 24 Warehouse in Southwark-street, London
Magasin, Southwark-street, à Londres
Waarenlager in Southwark-street, zu London
Magazzino in Southwark-street, Londra
- 16 FERGUSSON, JAMES, F.R.S., 20 Langham-place, London
- 25 Design for Albert Memorial, Hyde-park, London
Projet de monument à la mémoire du Prince Albert, dans Hyde-park, à Londres
Entwurf für das Albert-Denkmal im Hyde-Park, zu London
Progetto pel Monumento Alberto, Hyde-park, Londra
- 17 FERREY, BENJAMIN, F.S.A., 1 Trinity-place, Charing-cross, London
- 26 Clandeboye, Belfast, Ireland, the seat of Lord Dufferin, G.C.B.
Clandeboye, à Belfast, Irlande, la résidence de Lord Dufferin
Clandeboye, zu Belfast, in Irland, der Wohnsitz des Lord Dufferin, G.C.B.
Clandeboye, Belfast, Irlanda, residenza di Lord Dufferin, G.C.B.
- 18 FOWKE, CAPTAIN FRANCIS, R.E. (the late)
- 27 Perspective view of Design for New Museum, South Kensington, London
Vue perspective du dessin pour le Nouveau Musée, à South Kensington

Eine perspectivische Ansicht des Entwurfes
für das neue Museum in South-Kensington
*Veduta prospettiva d' un progetto di Nuovo
Museo, South Kensington*

28 Elevation and sections of the same

Élévation; coupes

Aufriss und Durchschnitt desselben

Elevazione e profili del medesimo

29 Elevation: design for completion of the
Exhibition of 1862, Cromwell-road front

*Élévation: projet pour l'achèvement du Palais
de l'Exposition de 1862, façade sur Cromwell-
road*

Aufriss: Entwurf für die Vollendung der
Ausstellung von 1862, die Façade von der
Cromwell-road

*Elevazione: progetto per complemento dell'
Esposizione del 1862, facciata sul Cromwell-
road*

19 GIBSON, JOHN, 13 Great Queen-street, West-
minster, s.w.

30 View of the interior of the National Pro-
vincial Bank of England, London

*Vue de l'intérieur de la Banque Nationale Pro-
vinciale d'Angleterre, à Londres*

Ansicht des Innern der 'National Provincial
Bank of England' zu London

*Veduta dell' interno della Banca Nazionale
Provinciale d'Inghilterra, a Londra*

20 GILES, J., 20 Craven-street, Charing-cross,
London

31 Langham Hotel, Portland-place, London

Hôtel Langham, Portland-place, à Londres

Das Hotel Langham, Portland-place, London

Langham Hotel, Portland-place, a Londra

21A GOODWIN, ALBERT, Boxley-road, Maidstone
The property of the Artist

32 A Study of Colour—*Étude de couleur*

Farbenstudienzeichnung—*Studio di colore*

21 HARDWICK, PHILIP CHARLES, F.S.A., 21
Cavendish-square, London

33 View of interior of Lincoln's-inn-hall,
London

*Vue de l'intérieur de la Salle de Lincoln's-
inn, à Londres*

Ansicht des Innern von Lincoln's-inn-hall,
zu London

Veduta interna dell' Aula di Lincoln's Inn

34 View of interior of Town Hall, Durham
*Vue de l'intérieur de l'Hôtel de Ville, à
Durham*

Ansicht des Innern des Rathhauses zu
Durham

*Veduta interna del Palazzo Comunale,
Durham*

35 Detail of exterior of Adare House, Ireland
*Détails de l'extérieur de Adare House, en
Irlande*

Detail der Aussenseite von Adare House in
Ireland

*Dettaglio dell' esterno del Palazzo Adare,
Irlanda*

22 HAYWARD, CHARLES FORSTER, F.S.A., 20
Montague-street, Russell-square, London

36 Duke of Cornwall Hotel, Plymouth

Hôtel 'Duc de Cornouailles,' à Plymouth
Hotel 'Duke of Cornwall' zu Plymouth
*Locanda detta del Duca di Cornwall, a Ply-
mouth*

23 HAYWARD, CHARLES FORSTER, F.S.A., 20,
Montague-street, Russell-square, London;
and DAVIS, H. D., 32, Moorgate-street,
London

37 Queen's Hotel, Aberystwith

Hôtel de la Reine, à Aberystwith

Queen's Hotel zu Aberystwith

Locanda della Regina, Aberystwith

24 HOWELL, C. H., 3 Lancaster-place, Strand,
London

38 Oakley House, Merstham, Surrey

Oakley House, à Merstham, comté de Surrey

Oakley House, zu Merstham, in Surrey

Palazzo Oakley, Merstham, Surrey

25 L'ANSON, EDWARD, 7A Laurence Pountney-
hill, London

39 View of Royal Exchange-bgs., London

Vue des bâtiments de la Bourse Royale

Ansicht von Royal Exchange-buildings

Veduta dell' edificio della Borsa Reale

40 View of Colonial-chambers, Fench.-st.

*Vue de la Cité Coloniale, Fenchurch-street,
Londres*

Ansicht von Colonial-chambers, in Fen-
church-street, zu London

*Veduta dell' edificio detto Le Camere
Coloniali, Fenchurch-street, Londra*

41 View of No. 80 Lombard-street

Vue du No. 80 Lombard-street, à Londres

Ansicht von No. 80 Lombard-street

Veduta del No. 80 Lombard-street

42 View of Argus Life Office, Pall Mall
*Vue des Bureaux de la Compagnie d'as-
surances Argus, Pall Mall, à Londres*

Ansicht der Bureaux der Argus-Lebens-
versicherung-Gesellschaft, in Pall Mall

*Veduta dell' Ufficio di Assicurazione
l' 'Argus,' Pall Mall, Londra*

43 View of the Hop Planters' Offices and Ware-
house, Southwark-street, London

*Vue des bureaux et magasins des cultivateurs
du houblon, Southwark-street, à Londres*

Ansicht der Bureaux und Niederlage der
Hopfenpflanzer, in Southwark-street, zu Lon-
don

*Veduta degli Uffici dei Piantatori dei Luppoli,
Southwark-street, Londra*

44 View of No. 83 Lombard-street, London

Vue du No. 83 Lombard-street, à Londres

Ansicht von No. 83 Lombard-street, zu Lon-
don

Veduta del No. 83 Lombard-street, Londra

26 JAMES, JOSEPH, 2 Circus-place, Finsbury-
circus, London

45 View of Springhill College, Birmingham

Vue du Collège de Springhill, à Birmingham

Ansicht des Springhill-Collegiums, zu Bir-
mingham

Veduta del Collegio di Springhill, Birmingham

27 JONES, HORACE, City Architect, Guildhall,
London

46 View of the interior of Guildhall, London (restored)
Vue de l'Intérieur du Guildhall, à Londres (restauration)
 Ansicht des Innern der Guildhall zu London (restaurirt)
Veduta dell' interno del Guildhall (Palazzo Comunale) Londra (restaurato)

27A JONES, OWEN, 9 Argyle-place, Regent-street, London

47 Interior of Messrs. Osler's Warehouse
Intérieur du magasin de MM. Osler
 Das Innere der Fabrik der Herren Osler
Interno del magazzino dei Signori Osler

28 KEELING, E. BASSETT, 1 Verulam-buildings, Gray's-inn, London

48 View of Church at Killingworth
Vue de l'Eglise à Killingworth
 Ansicht der Kirche zu Killingworth
Veduta della Chiesa a Killingworth

29 LAMB, E. B., 3 Hinde-street, Manchester-square, London

49 North-east view of Aldwork Manor House
Vue (nord-est) de la Maison Seigneuriale de Aldwork
 Nordöstliche Ansicht des Herrenhauses zu Aldwork
Veduta nord-est del Palazzo, Aldwork

50 View of Town Hall, Eye, Suffolk
Vue de l'Hôtel de Ville, à Eye, comté de Suffolk
 Ansicht des Rathhauses zu Eye, in Suffolk
Veduta del Palazzo Comunale di Eye

30 LEWIS, PROFESSOR THOMAS HAYTER, F.S.A., 9 John-street, Adelphi, London

51 Memorial to the Officers of the Army Medical Department who fell in the Crimea: erected at Netley
Monument élevé, à Netley, à la mémoire des officiers du Département Médical de l'armée qui succombèrent dans la Crimée
 Denkmal für die Militair-Wundärzte, die in der Krim fielen, errichtet zu Netley
Monumento eretto a Netley agli Uffiziali del Dipartimento Medico dell' Armata che caddero nella Crimea

31 LYNN, WILLIAM H., Belfast, Ireland

52 Houses of Parliament and Government Offices, Sydney, New South Wales (*Design selected for execution, and to which the first premium was awarded, International Competition, November 9, 1861*)
Chambres du Parlement et Bureaux de l'Administration, à Sydney, Nouvelle Galles du Sud (Dessin qui a remporté le premier prix au concours international du 9 novembre 1861, et qui a été choisi pour exécution)
 Die Parlaments- und Regierungs-Gebäude zu Sydney in Neu-Süd-Wales (der Entwurf wurde für die Ausführung gewählt und erhielt den ersten Preis in der internationalen Competition am 9. November 1861)
Edifici del Parlamento ed Uffici Governativi a Sydney, New South Wales (progetto scelto per

esecuzione ed al quale fu aggiudicato il primo premio, concorso internazionale 9 novembre 1861)

32 MASEY, P. E., 61 Mornington-road, London

53 Design for a country house
Projet de maison de campagne
 Entwurf für ein Landhaus
Progetto per una villa

33 NORTON, JOHN, 24 Old Bond-street, London

54 Tynestefield, Somersetshire
Tynestefield, comté de Somerset
 Tynestefield, in Somersetshire
Tynestefield, Somersetshire

34 PEARSON, JOHN L., F.S.A., 22 Harley-street, London

55 View of St. Peter's Church, Vauxhall, London
Église St.-Pierre, à Vauxhall (Londres)
 Ansicht der St. Peterskirche zu Vauxhall, London
Veduta della Chiesa di S. Pietro, Vauxhall, Londra

35 PENNETHORNE, JAMES, 7 Whitehall-yard, London

56 View of a design for the Prince Consort Memorial, proposed to be erected in Hyde-park, London
Dessin pour le Monument projeté dans Hyde-park, à Londres, à la mémoire du Prince Albert
 Ansicht des Denkmals des Prinzzgemahls, das im Hyde-park zu London errichtet werden soll
Veduta di progetto pel Monumento del Principe Consorte da erigersi in Hyde-park, Londra

36 PRICHARD, J., Llandaff

58 Design for a mansion for Don Señor Manuel M. Gonzalez at Jerez de la Frontera, Spain
Dessin de l'hôtel de Don Señor Manuel M. Gonzalez, à Jerez de la Frontera, en Espagne
 Entwurf eines Wohnhauses für Don Señor Manuel M. Gonzalez zu Jerez de la Frontera, in Spanien
Progetto di palazzo per Don Manuel M. Gonzalez a Jerez de la Frontera in Spagna

37 REDGRAVE, GILBERT, South Kensington Museum, London

59 Architectural study
Étude d'architecture
 Architectonische Studienzeichnung
Studio architettonico

38 RIDGE, ALFRED M., 26 Clifton-road, Lower Clapton, London

60 Design for a Hall of Science and Art (to which the Gold Medal of the Royal Academy was awarded, December 9, 1865)
Dessin pour une Salle de Science et d'Art (Médaille d'or de l'Académie Royale, décernée le 9 décembre 1865)
 Entwurf eines Gebäudes für Wissenschaften und Kunst (erhielt die goldene Medaille der königlichen Academie am 9. December 1865)
Progetto per un' Aula di Scienze e d'Arti (a cui fu aggiudicata la Medaglia d'oro dell' Accademia Reale il 9 dicembre 1865)

- 39 SCOTT, GEORGE GILBERT, R.A., F.S.A., 31 Spring-gardens, London. (Appendix, p. 256)
- 61 View of the Prince Consort Memorial, now in course of erection in Hyde-park, London
Vue du monument à la mémoire du Prince Albert, actuellement en construction dans Hyde-park, à Londres
 Ansicht des Denkmals des Prinzgemahls, das im Hyde-Park zu London errichtet werden soll
Veduta del Monumento del Principe Consorte ora in costruzione in Hyde-park, a Londra
- 39A SCOTT, W. B., 33 Elgin-road, Notting-hill, London
 Design for the spandrels of the arches surrounding the hall at Wallington
Dessin pour les tympans des arcades autour du vestibule à Wallington
 Entwurf für die Bogenhintermauerungen der Arcaden, welche die Halle zu Wallington umgeben
Progetto di timpani per gli archi della galleria che cinge la sala di Wallington
- 39B SEDDON, J. P., 12 Park-street, Westminster, London
- 61A Study for street architecture
Étude de façade sur les rues
 Studienzeichnung für Strassen-Architectur
Progetto d'architettura stradale
- 40 SLATER, WILLIAM, Carlton-chambers, 4 Regent-street, London
- 62 View of the interior of Sherborne Minster, Dorset (restored)
Vue de l'intérieur de l'Église-Cathédrale de Sherborne, comté de Dorset (restauré)
 Ansicht des Innern des Münsters zu Sherborne, in Dorsetshire (restaurirt)
Veduta interna del Sherborne Minster, Dorset (restaurato)
- 64 View of the interior of Church, Burnt-island
Vue de l'intérieur de l'Église, à Burnt-island, Ecosse
 Ansicht des Innern der Kirche, Burnt-island
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- de l'Institution Royale des Architectes Britanniques, décernée 1864)*
Entwurf für ein Asylum (Zufluchtsort) für fünf und zwanzig Pensionäre, mit dem Hause für den Vorsteher etc. (erhielt die Soane-Medaille vom dem Königlichen Institut der Britischen Architecten im März 1864)
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Épreuves Photographiques de Dessins et Modèles d'Architecture.

Photographien von architectonischen Entwürfen und Modellen.

Fotografie e Progetti e Modelli Architettionici.

- 58A ABRAHAMS, H., 4 Serle-street, Lincoln's-inn, London
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- 62A COCKERELL, FREDERICK P.**, 8 Regent-street, London
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- 63A GARLING, H. B.**, 11 King's-road, Bedford-row, London
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 120 Nos. 80, 81, and 82 Lombard-street, London
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67A LOCKWOOD, H. F., 10 Lincoln's-inn-fields, London

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67B MURRAY, JAMES, 25 Portman-st., London

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Eatington Park, la résidence de M. E. P. Shirley, Membre du Parlement

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- 71A **SCOTT, G. G.**, R.A., F.R.S., 31, Spring-gardens, London
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- 72A **STREET, G. E.**, A.R.A., 51 Russell-square, London
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- 164 Views of a residence at Witley, Surrey
Vues d'une résidence à Witley, comté de Surrey
 Ansicht eines Wohnhauses zu Witley, in Surrey
Vedute di una residenza a Witley, Surrey
- 74 **WATERHOUSE, ALFRED**, 8 New Cavendish-street, Portland-place, London
 165 Illustrations of design for the New Courts of Law, London
Détails de projet du nouveau Palais de Justice, à Londres
 Illustrationen von Entwürfen für die neuen Gerichtshöfe zu London
Illustrazioni di progetti per le nuove Corti di Giustizia a Londra
- 166 Details of the Assize Courts, Manchester
Détails de la Cour des Assises à Manchester
 Details der Assisenhöfe zu Manchester
Dettagli delle Corti d'Assise a Manchester
- 75 **WHITE, WILLIAM**, F.S.A., 30A Wimpole-street, London
 167 Masbro' Church, Rotherham
Église de Masbro', à Rotherham
 Die Masbro'-Kirche zu Rotherham
Chiesa di Masbro', a Rotherham
- 168 Northchurch Schools, Berkhamstead
Bâtiments d'École, à Northchurch, Berkhamstead
 Die Northchurch-Schulen zu Berkhamstead
Scuole di Northchurch, a Berkhamstead
- 169 St. Saviour's Church, Aberdeen-park, Highbury, London
Église du St.-Sauveur, Aberdeen-park, Highbury
 Die St. Saviour's-Kirche, im Aberdeen-Park, zu Highbury
Chiesa di S. Salvatore, Aberdeen-park, Highbury
- 170 All Saints' Church, Kensington
Église de la Toussaint, à Kensington
 Die Aller-Heiligen-Kirche zu Kensington
Chiesa d'Ognisanti, Kensington
- 75A **WYATT, M. DIGBY**, F.S.A., 37 Tavistock-place, London
 171 Design for New National Gallery
Projet de la Nouvelle Galerie Nationale, à Londres
 Entwurf der neuen National-Gallerie
Progetto della Nuovo Galleria Nazionale

Models—Modèles

Modelle—Modelli.

- 76 CLARKE, GEORGE SOMERS, 20 Cockspur-street, London
 172 Model of one bay, New Auction Mart, London
Modèle d'une travée de la nouvelle Salle de Vente aux enchères à Londres
 Modell eines Bogenfensters des neuen Auctionsmarktes zu London
Modello d'una sezione, nuove Sale di Vendita all'asta, Londra
 173 Model of principal entrance-door of same
Modèle de l'entrée principale de la salle
 Modell des Haupteinganges dazu
Modello di porta d'ingresso principale delle medesime
 77 SCOTT, GEORGE GILBERT, R.A., F.S.A., 20 Spring-gardens, London (Appendix, p. 256)
 174 Model of the Prince Consort's Memorial
Modèle du Monument élevé à la mémoire du Prince Albert
 Modell des Prinzgemahl-Denkmal's
Modello del Monumento del Principe Consorte

CLASS V.

Engraving and Lithography.

Gravures et Lithographies.

Gestochene und lithographirte Bilder.

Incisione e Litografia.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di Classificazione, p. xiv.)

JURORS—MEMBRES DU JURY

PREISRICHTER—GIURATI.

R. J. Lane, Esq., A.E.R.A.

Julian Marshall, Esq.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO

Captain Hiches, R.E.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ATKINSON, THOMAS LEWIS, Abbey-villas, Hill-road, St. John's-wood, London

The property of the Artist

The Black Brunswick, after J. E. Millais, R.A.

Le soldat de la légion de Brunswick

Der schwarze Braunschweiger

*Il Black Brunswicker**The property of the Artist*

- 1A Home and its Treasures

Le chez-soi et ses trésors

Die Heimath und ihre Schätze

A Casa propria, e i suoi Tesori

- 2 BARLOW, THOMAS O., Auburn-lodge, Victoria-road, Kensington, London

The property of the Artist

The House of Commons, 1860, after John Phillip, R.A.

Chambre des Communes, 1860

Das Haus der Gemeinen, 1860

*Camera dei Deputati, 1860**The property of the Artist*

- 2A Sisters of Mercy, after Henriette Browne

Sœurs de charité

Die Schwestern der Barmherzigkeit

*Le Suore di Carità**The property of the Artist*

- 2B Portrait of Augustus Egg, R.A., after John Phillip, R.A.

Portrait de M. Augustus Egg, R.A.

Portrait von August Egg, R.A.

*Ritratto di Augusto Egg, R.A.**The property of the Artist*

- 2c Sir Isaac Newton, after Sir G. Kneller

*Portrait de Sir Isaac Newton*Sir Isaac Newton—*Sir Isaac Newton*

- 3 CHANT, JAMES JOHN, 36 Hildrop-crescent, Camden-road-villas, London

The property of Messrs. Henry Graves

The Plough, after W. C. T. Dobson, A.R.A.

*La charrue—Der Pflug—L'Aratro**The property of Messrs. Henry Graves*

- 3A Mamma's Birthday, after W. C. T. Dobson, A.R.A.

*La fête de maman—Mamma's Geburtstag**Il Giorno natalizio della Mamma*

- 4 COUSINS, SAMUEL, R.A.

The property of the Artist

Louis XVI. and Family in the Temple, after E. M. Ward, R.A.

Louis XVI et sa famille au Temple

Louis XVI. und seine Familie im Tempel

*Luigi XVI e Famiglia nel Tempio**The property of the Artist*

- 4A A Midsummer Night's Dream, after Sir Edwin Landseer, R.A.

Le Rêve d'une nuit d'été

Ein Sommernachts-Traum

*Il Sogno della Notte di Mezza Estate**The property of the Artist*

- 4B From Dawn to Sunset, after T. Faed, R.A.

De l'aurore au coucher du soleil

Von Morgens bis Abends

*Dall Alba al Tramonto**The property of the Artist*

- 4c The Order of Release, after J. E. Millais, R.A.

L'ordre d'élargissement

Der Entlassungsschein

*L'Ordine di Liberazione**The property of Messrs. Graves*

- 4d 'Saved,' after Sir Edwin Landseer, R.A.

*'Sauvé,'—'Gerettet!'—'Salvato!'**The property of Messrs. Graves*

- 4E The Maid and the Magpie, after Sir Edwin Landseer, R.A.

La jeune fille et la pie

Das Mädchen und die Elster

La Fanciulla e la Gazza ladra

- 5 CUFF, R. PARMINTER, 18 Holford-square, Pentonville, London

The property of the Artist

The Victoria Tower, Westminster

La tour Victoria, à Westminster

Der Victoria-Thurm zu Westminster

La Torre Vittoria, Westminster

- 6 DOO, GEORGE T., R.A., Historical Engraver in Ordinary to the Queen, Great Stanmore, Middlesex

The property of the Artist

The Resurrection of Lazarus, after Sebastian del Piombo

La résurrection de Lazare

Die Auferweckung des Lazarus

La Resurrezione di Lazzaro

The property of the Artist

- 6A St. Augustine and St. Monica, after Ary Scheffer

St. Augustin et Ste. Monique

St. Augustin und St. Monica

S. Agostino e Sta. Monica

- 7 GELLER, W. O., 4 Stanhope-place, Mornington-crescent, London

The property of the Artist

Benjamin Franklin at the Court of France in 1786, after Baron Jolly

Benjamin Franklin à la cour de France, 1786

Benjamin Franklin am Hofe zu Frankreich in 1786

Beniamino Franklin alla Corte di Francia nel 1786

- 8 GRAVES, ROBERT, A.R.A., 20 Grove-terrace, Highgate-road, London

The property of the Artist

Portrait of Hon. Mrs. Graham, after Gainsborough, R.A.

Portrait de l'Honorable Madame Graham

Portrait der ehrenwerthen Madame Graham

Ritratto dell' Onorevole Signora Graham

The property of the Artist

- 8A Cromwell Resolving to Refuse the Crown, after C. Lucy

Cromwell prenant la résolution de refuser la couronne

Cromwell verweigert die Krone

Cromwell che risolve di ricusar la Corona

The property of the Artist

- 8B 'La Vierge au Miroir,' after Murillo

'La vierge au miroir'

'La Vierge au Miroir'

'La Vergine allo Specchio'

The property of the Artist

- 8C The Good Shepherd, after Murillo

Le bon pasteur

Der gute Hirt

Il Buon Pastore

- 9 GRUNER, L.

The property of the Art Union of London
Specimens of illustrations to the 'Story of the Norman Conquest,' after D. Maclise, R.A.

Spécimens des illustrations de 'l'Histoire de la Conquête des Normands'

Proben der Illustrationen zur Geschichte der Normannischen Eroberung, nach D. Maclise, R.A.

Saggi di Illustrazioni alla 'Storia della Conquista Normanna'

- 10 HOLL, FRANCIS, 40 Gloucester-road, Regent's-park, London

The property of Messrs. Graves

The Railway Station, after W. P. Frith, R.A.

La gare de chemin de fer

Die Eisenbahn-Station

La Stazione ferroviaria

- 11 JOUBERT, FERDINAND, 36 Porchester-terrace, London

The property of the Artist

Engravings in relief for surface printing

Gravures en relief pour l'imprimerie

Relief-Gravirungen zum Druck von Oberflächen

Incisioni in rilievo per stampar superficie

- 12 LANDSEER, THOMAS, Cunningham-place, St. John's-wood, London

The property of Messrs. Graves

An Event in the Forest, after Sir Edwin Landseer, R.A.

Evénement dans la forêt

Ein Ereigniss im Walde

Avvenimento nella Foresta

The property of Messrs. Graves

- 12A The Lost Sheep, after Sir Edwin Landseer, R.A.

La brebis égarée

Das verlorne Schaf

La Pecora smarrita

The property of Messrs. Graves

- 12B The Hunted Stag, after Sir Edwin Landseer, R.A.

Le cerf poursuivi

Die gejagte Hirsch

Il Cervo cacciato

The property of Messrs. Graves

- 12C Geneva—Dining Out, after Sir Edwin Landseer, R.A.

Genève—dinant en plein air

Genève—Das Mittagessen in freier Luft

Genève—Pranzo al fresco

- 13 LEMON, C.

The property of the Art Union of London

'Pity,' after H. Le Jeune, A.R.A.—'La Pitié'

—'Das Erbarmen'—'Pietà'

- 14 LEWIS, CHARLES G., 53 Charlotte-street, Portland-place, London

The property of the Artist

Morning in the Highlands, after Rosa Bonheur

Matin dans les Highlands de l'Ecosse

Der Morgen im Hochlande

Mattina negli Altipiani (Scozia)

The property of the Artist

- 14A 'Bouvicaïros' in the Pyrenees, after Rosa Bonheur

'Bouvicaïros,' dans les Pyrénées

'Bouvicaïros' in den Pyrenäen

'Buviqueros' nei Pirenei

The property of the Artist

- 14B Highland Raid, after Rosa Bonheur

L'enlèvement du troupeau

Der Schottische Einfall

Scorreria negli Altipiani (Scozia)

- 15 MOTTRAM, CHARLES, 92 High-street, Camden Town, London

The property of Messrs. Graves
Les Bœufs Bretons, after Rosa Bonheur
Les bœufs Bretons
Die Bretagner Ochsen—*Les Bœufs Bretons*

- 16 ROBINSON, J. H., A.R.A., New Grove, Petworth

The property of the Artist
The Countess of Bedford, after Vandyke
Portrait de la Comtesse de Bedford
Die Gräfin von Bedford
La Contessa di Bedford

- 17 SCOTT, JAMES, 12 Cornwall-place, London

The property of Messrs. Graves
Duke and Duchess of Beaufort, after Sir Francis Grant, P.R.A.
Portraits du Duc et de la Duchesse de Beaufort
Herzog und Herzogin von Beaufort
Duca e Duchessa di Beaufort

- 18 SHARPE, C. W.

The property of the Art Union
Hamlet, after D. Maclise, R.A.
Hamlet—Hamlet—Hamlet

The property of the Art Union
18A Life at the Sea-side, after W. Frith, R.A.
Comment on passe son temps au bord de la mer
Das Leben an der Seeküste
La Vita in riva al Mare

- 19 SIMMONS, WILLIAM H., 247 Hampstead-road, London

The property of Messrs. Graves
Sunday in the Backwoods of Canada, after Thomas Faed, R.A.
Le dimanche dans les forêts du Canada
Sonntag in den Backwoods von Canada
La Domenica nelle Foreste del Canada

The property of Messrs. Graves
19A The Parable of the Lost Piece of Money, after J. E. Millais, R.A.
La parabole du denier perdu
Die Parabel von dem verlorenen Geldstück
La Parabola della Moneta perduta

- 20 STEPHENSON, JAMES, 25 Dartmouth-park-road, Kentish Town, London

The property of the Artist
The Shrew Tamed, after Sir Edwin Landseer, R.A.
La jument domptée
Das gezähmte böse Weib
L'Indomita domata

The property of the Artist
20A Ophelia, after Millais, R.A.—*Ophélie—Ophelia—Ophelia*

The property of the Artist
20B Tennyson, after G. F. Watts, A.R.A.
Portrait du Poète Tennyson
Tennyson—*Tennyson*

- 21 STOCKS, LUMB, A.R.A., 9 Richmond-villas, Seven-sisters'-road, London

The property of the Artist
Claude Duval, after W. Frith, R.A.
Claude Duval—Claude Duval—Claude Duval

- 21A 'O Nannie, wilt thou gang wi' me,' after T. Faed, R.A.
'Nannette, veux-tu me suivre'
'O Nannie, wilt thou gang wi me' (O, Nannchen! willst Du mit mir gehn)
'Oh Nannina, vuoi tu andar con me'

The property of the Artist
21B The Gentle Shepherd, after D. Wilkie, R.A.
Le doux pasteur
Der fromme Hirt—*Il buon Pastore*

22 TURNER, CHARLES, A.R.A. (the late)
The property of Mrs. Savery
Rt. Hon. Lord George Beresford, after Sir Thomas Lawrence, P.R.A.
Portrait du Très-Honorable Lord George Beresford
Lord George Beresford
L'Onorevolissimo Lord George Beresford

23 *WILLMORE, JAMES T., A.R.A. (the late)
The property of R. J. Lane, Esq., A.R.A.
Mercury and Argus
Mercur et Argus
Mercur and Argus
Mercurio ed Argo

Wood Engraving.
Gravures sur Bois.
Holzschnitte.
Incisioni in Legno.

- 24 DALZIEL BROTHERS, 10 High-street, Camden-town, London

The property of the Artists
Twelve illustrations of the parables of our Lord, after J. E. Millais, R.A.
Douze illustrations des Paraboles de Notre Seigneur
Zwölf Illustrationen der Gleichnisse unseres Herrn
Dodici illustrazioni delle Parabole di Nostro Signore

- 25 EVANS, EDMUND, Raquet-court, Fleet-street, London

The property of the Artist
Engravings on wood, after Birket Foster
Gravures sur bois
Holzschnitte
Incisioni in legno

- 26 GREEN, WILLIAM THOMAS, 27 Albert-street, Mornington-crescent, London

The property of the Artist
Nine engravings on wood, after F. Tayler, W. Harvey, and B. Foster
Neuf gravures sur bois
Neun Holzschnitte
Nove incisioni in legno

- 27 HARRAL, HORACE, 4 Palsgrave-place, Temple Bar, London

The property of the Artist

Engravings on wood
Gravures sur bois
 Holzschnitte
Incisioni in legno

- 28 LINTON, W. J., 85 Hatton-garden, London
The property of the Science & Art Department
 Form of Certificate, International Exhibition
 of 1862, after Alfred Stevens
Dessin de Diplôme, Exposition Internationale
de 1862
 Form eines Zeugnisses der internationalen
 Ausstellung, 1862
Modello di Attestato, Esposizione Internazionale,
 1862

- 28A MEASOM, WILLIAM, 5 Grafton-villas, Mal-
 don-road, Haverstock-hill, London
 Engravings on wood—*Gravures sur bois*
 Holzschnitte—*Incisioni in legno*

- 29 PALMER, WILLIAM J., 33 Essex-street,
 Strand, London

The property of the Artist

Interior of Toledo Cathedral, after Samuel
 Read
Intérieur de la Cathédrale de Tolède
 as Innere der Cathedrale zu Toledo
Interno della Cattedrale di Toledo

The property of the Artist

- 29A Wood engravings
Gravures sur bois
 Holzschnitte
Incisioni in legno

- 30 PEARSON, GEORGE, 3 Bolt-court, Fleet-
 street, London

The property of the Artist

Engravings on wood
Gravures sur bois
 Holzschnitte
Incisioni in legno

- 31 REID, ANDREW, South Kensington Mu-
 seum, London

The property of the Artist

Facsimiles drawn on wood by exhibitor, for
 Wornum's 'Life of Holbein,' engraved by
 the Brothers Dalziel

Gravures sur bois, dessinées par l'exposant et
gravées par Dalziel frères pour 'La Vie de
Holbein,' par Wornum

Facsimiles von dem Aussteller auf Holz
 gezeichnet für 'Das Leben Holbeins' von
 Wornum, gestochen von den Gebrüdern
 Dalziel

Facsimili delineati su legno dall' espositore
per la 'Vita di Holbein' di Wornum, incisi
dai fratelli Dalziel

- 32 SACHS, JOHN, 33 Essex-street, Strand,
 London

The property of the Artist

Four Saints, from a Triptych by Matthew
 Grunewald
Quatre saints, d'après un Triptique par Mat-
thew Grunewald

Vier Heiligen, von einem Triptych von Mat-
 thew Grunewald
Quattro Santi, da un Trittico di Matteo Grune-
wald

The property of the Artist

- 33A Engravings on wood
Gravures sur bois
 Holzschnitte
Incisioni in legni

- 34 SWAIN, JOSEPH, 6 Bouverie-street, White-
 friars, London

The property of the Engraver

Engravings on wood, after the late John Leech
Gravures sur bois d'après feu John Leech
 Holzschnitte, nach John Leech
Incisioni in legno, da disegni di John Leech

The property of the Engraver

- 34A Engravings on wood
Gravures sur bois
 Holzschnitte
Incisioni in legni

- 35 THOMAS, W. L., 4 Palgrave-place, Fleet-
 street, London

The property of the Artist

Sancho Panza, after C. R. Leslie, R.A.,
Sancho Pança
 Sancho Panza
Sancho Panza

The property of the Artist

- 35A Queen Mab's Grotto, after J. M. W.
 Turner, R.A.
Grotte de la Reine Mab
 Die Grotte der Königin Mab
La Grotta della Regina Mab

The property of the Artist

- 35B Tennyson's 'Princess,' after D. Maclise,
 R.A.
'La Princesse' (Poème de Tennyson)
 Tennyson's 'Prinzessin'
'La Principessa,' di Tennyson

The property of the Artist

- 35C The Entombment, after Perugino
La Sépulture de notre Seigneur
 Die Grablegung, nach Perugino
L' Inumazione, da un quadro di Perugino

- 36 THOMPSON, JOHN (the late)

The property of Miss Thompson

Specimens of illustrations of the 'Lays of the
 Scottish Cavaliers,' after Noel Paton, R.S.A.
Spécimens des illustrations des 'Chants des
Cavaliers Écossais'
 Proben der Illustrationen für die Gesänge des
 Schottischen Cavaliers
Saggi di Illustrazioni dei 'Lai dei Cavalieri
Scozzesi'

Etchings.

Gravures à l'Eau Forte.

Aetzzeichnungen.

Incisioni all' Acquaforte.

- 37 COLE, HENRY, C.B., South Kensington Museum, London

The property of the Artist

1. Loch Gare; 2. Shere; 3. Brampton Bryan; 4. Bowlhead Green; 5. Egwood; 6. Newbold Revel; 7. Hatfield; 8. Condoover; 9. Windsor

Neuf gravures à l'eau forte de paysages anglais et écossais

Neun Englische und Schottische Landschaften
Nove incisioni all' acquaforte di paesaggi inglesi e scozzesi

- 38 COPE, CHARLES WEST, R.A., 19 Hyde-park Gate South, Kensington, London

The property of the Artist

The Life School, Royal Academy; and three others

La Classe de dessin d'après nature, à l'Académie Royale; et trois autres gravures à l'eau forte

Die Zeichenschule für lebende Modelle,
 Königliche Academie, und drei andere

La Scuola dal vero all' Accademia Reale, e tre altri incisioni

- 39 HADEN, F. SEYMOUR, 62 Sloane-street, London

The property of the Artist

Frame of etchings

Gravures à l'eau forte dans un cadre

Ein Rahmen mit Aetzzeichnungen

Cornice con incisioni all' acquaforte

- 40 HOOK, JAMES C., R.A., Pine-wood, Witley, near Godalming

The property of the Artist

Boy Gathering Sea Fowls' Eggs; and 'Sea Urchins'

Garçon cherchant les œufs de mouettes; Gamins de la mer

Ein Knabe der Seevögeleier sammelt, und
 See-Igel

Ragazzo che raccoglie uova d' uccelli marine, e Ricci di Mare

- 40A Frame of three etchings

Trois gravures à l'eau forte dans un cadre

Ein Rahmen mit drei Aetzzeichnungen

Cornice con tre incisioni all' acquaforte

- 41 JESSE, GEORGE R., High-street, Macclesfield

The property of the Artist

English Bull-dog, and two other etchings

Boule-dogue anglais, et deux autres gravures à l'eau forte

Ein Englischer Bullenbeisser und zwei andere
 Aetzzeichnungen

Bulldog inglese e due altre acquaforti

- 42 PALMER, SAMUEL, Furze-hill House, Red-hill, Surrey

The property of the Artist

1. A Pastoral Landscape; 2. A Rustic Recess

1. Paysage pastoral; 2. Retraite rustique

1. Eine Hirtenlandschaft; 2. Ein ländlicher
 Schlupfwinkel

1. Paesaggio pastorale; 2. Recesso rustico

- 43 REDGRAVE, RICHARD, R.A., 18 Hyde-park-gate South, Kensington, London

The property of the Science and Art Department

1. The Springhead; 2. Eugene Aram

1. La Source; 2. Eugène Aram

1. Der Quell; 2. Eugen Aram

1. La Fonte; 2. Eugenio Aram

Lithographs.

Lithographies.

Lithographien.

Litografie.

- 44 LANE, RICHARD J., A.R.A., 1 York-villas, Campden-hill, London

The property of the Artist

Miss Helen Faucit as the Greek Muse, after
 F. W. Burton, R.H.A.

Mdlle. Hélène Faucit, représentant la Muse grecque

Fräulein Helene Faucit als Griechische Muse
La Signorina Elena Faucit da Musa greca

The property of the Artist

Charles Fechter and Charles Dickens, from the
 life

Portraits de Charles Fechter et Charles Dickens

Charles Fechter and Charles Dickens

*Carlo Fechter e Carlo Dickens**The property of the Artist*

The Queen and Prince Consort, after Winterhalter

La Reine et le Prince Époux

Die Königin und der Prinz-Gemahl

La Regina e il Principe Consorte

- 45 VINTER, J. A., 18 Monmouth-road, Bayswater, London

The property of the Queen

Her Majesty the Queen, after Winterhalter

Sa Majesté la Reine

Ihre Majestät die Königin

*S. M. la Regina**The property of the Queen*

H.R.H. the Prince Consort, after Winterhalter

S.A.R. le Prince Albert

Seine Königliche Hoheit der Prinz-Gemahl

*S.A.R. il Principe Consorte**The property of the Queen*

The Prince and Princess of Wales, after
 Winterhalter

LL.AA.RR. Le Prince et la Princesse de Galles

Der Prinz und die Prinzessin von Wales

Il Principe e la Principessa di Galles

GROUP II.

Apparatus and Applications of the Liberal Arts.

Matériel et Applications des Arts Libéraux.

Apparate und Anwendungen der freien Künste

Apparati e Applicazioni d' Arti Liberali.

Vice President of the Jury	} LORD HOUGHTON.
<i>Vice-Président du Jury</i>	
Vice-Präsident des Preisgerichts	
<i>Vice-Presidente dei Giurati</i>	
Associate	} BAILLIE COCHRANE, ESQ., M.P.
<i>Associé</i>	
Zweiter Vice-Präsident	
<i>Associato</i>	

CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerkunst und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)

(*Voir le système de classification, p. xiv.*)

(Für detaillirte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione, p. xiv.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Earl of Rosse, K.P.
Earl Russell, K.G.
Lord Houghton
Right Hon. W. F. Cowper, M.P.
Right Hon. Sir G. Clerk, Bart.
Right Hon. Sir J. S. Pakington, Bart. G.C.B. M.P.
Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.
Right Hon. Robert Lowe, M.P.
Right Hon. C. B. Adderley, M.P.
Right Hon. H. A. Bruce, M.P.
Sir C. Wentworth Dilke, Bart. M.P.
Sir Francis R. Sandford
Edgar A. Bowring, Esq. C.B.
Rt. Hon. W. Chambers, Lord Provost of Edinburgh
George T. Clark, Esq.
George Clowes, Esq.
William J. Hamilton, Esq.
A. J. B. Beresford Hope, Esq. M.P.
Owen Jones, Esq.
Thomas Longman, Esq.
Alexander Macmillan, Esq.
John Francis Maguire, Esq. M.P.
Rev. Canon Moseley.
John Murray, Esq.
Richard Redgrave, Esq. R.A.
Lieut.-Gen. E. Sabine, R.A. P.R.S.
W. H. Smith, Esq.
E. Stanford, Esq.

Rev. W. H. Brookfield, *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATI.

George Clowes, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATI.

C. Rivers Wilson, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1* THE ARUNDEL SOCIETY, Old Bond-st., London
Chromolithographs (see Advertisement)

Impressions chromolithographiques
Chromolithographien
Cromolitografie

1A ART UNION OF LONDON, 444 West Strand
London

Line engravings—*Gravures au trait*
Linien-Gravirungen—*Incisioni a taglio*

2 ASHBY & Co., 32 St. Swithin's-lane, London
Specimens of bank-notes, bankers' cheques, &c.
Spécimens de billets de banque, de mandats
Proben von Banknoten und Bankanweisungen
Campioni di biglietti di banca, mandati, ecc.

3 *BAXTER, GEORGE, Peak-hill Retreat, Sydenham, Kent

Patent oil pictures
Impressions à l'huile brevetées
Bilder in patentirtem Oeldruck
Impressioni colorite a olio, patentate

4 BELLWS, JOHN, 6 Westgate-st., Gloucester
French-English Dictionary and typography
Dictionnaire Français-Anglais, spécimens de typographie

Französisch-Englisches Wörterbuch und Typographie
Dizionario Francese-Inglese, saggi tipografici

5 BRADBURY, WILKINSON, & Co., 12, 13, & 14
Fetter-lane, London
Bank-notes and bonds
Billets de banque et obligations
Banknoten und Obligationen
Biglietti di banca e obbligazioni o cedole

6 BROOKS, VINCENT, 1 Chandos-street, Charing-cross, London
Specimens of lithographic printing, &c.
Épreuves de lithographies, etc.
Proben von Steindruck etc.
Saggi litografici, ecc.

7 BUTLER & TANNER, Frome, Somerset
Specimens of letter-press and woodcut printing
Épreuves typographiques et de gravures sur bois
Proben von Buchdruck und Holzschnitten
Saggi di tiratura, di incisioni in legno, e stampa a tipi

- 7A CAUSTON, JOSEPH & SONS (see class 7)
Engraving and lithographie printing in colours
Gravure et impressions lithographiques en couleurs
Gravirungen u. lithographischer Farbendruck
Saggi d'incisione litografica in colori
- 8 DAY & SON (Limited), Gate-st., Lincoln's-inn
Chromolithographic printing and fine-art publications
Épreuves chromolithographiques, ouvrages illustrés
Chromolithographischer Druck und illustrierte Kunstwerke
Impressioni cromolitografiche, e riproduzioni di belle arti
- 9 DICKES, W. Farringdon-rd., Holborn, London
Specimens of engraving and printing in colours
Épreuves de gravures et de typographie en couleur
Proben von Gravirungen und Farbendruck
Saggi di incisione e tipografia in colori
- 10 *GRANT & Co., Works, Turnmill-st., London
Show-cards and high-art printing in colours
Affiches de montre et typographie artistique en couleur
Schaukarten und kunstreicher Farbendruck
Cartelle da mostre, e tipografia artistica in colori
- 11 GRISBROOK, WILLIAM, 154 York-road, Lambeth, London
Specimen of print-restoring
Spécimen de restauration typographique
Proben von wiederhergestelltem Druck
Saggio di ristauo tipografico
- 12 *HAILES & Co., Peterborough-court, Fleet-street, London
Chemicographic and bank-note engraving and printing; reproductions of Exhibition medals
Gravures et typographie chemicographique; billets de banque; reproductions des médailles décernées à l'Exposition
Platten auf chemischem Wege gestochen und Abdrücke, sowie gestochene Banknoten und Abdrücke; Wiederherstellung von Ausstellungs-Medaillen
Incisione e stampa chemicografica, e incisione e stampa di biglietti di banca; riproduzioni di medaglie di Esposizioni
- 13 HANHART, M. & N., Charlotte-street, Fitzroy-square, London
Lithographic printing—*Lithographies*
Lithographien—*Impressione litografica*
- 14 HARRISON & SONS, 45 & 46 St. Martin's-lane, London
Specimens of letter-press printing
Épreuves typographiques
Proben der Buchdruckerkunst
Saggi tipografici
- 15 JOHNSON, J. M., & SON, Castle-street, Holborn, London
Show-cards, crystal tablets, advertisements, wrappers, trade-mark labels, &c.
- Affiches de montres, tablettes de crystal, annonces, enveloppes, étiquettes, etc.*
Schaukarten, Crystalltafeln, Anzeigen, Umschläge, Etiquetten etc.
Cartelle da mostre, cartelli di cristallo, annunzi, buste involti, marche commerciali, ecc.
- 16 LEIGHTON BROTHERS, Milford-house, Strand, London
Specimens of colour printing
Spécimens de typographie en couleur
Proben von Farbendruck
Saggi di tipografia in colori
- 17 MACLURE, MACDONALD, & MACGREGOR, 37 Walbrook, London and Glasgow (App. p. 2)
Lithography and engraving, specimens of lithographic machine printing by steam power
Lithographies et gravures, spécimens de lithographies imprimées à la vapeur
Lithographie und Gravirungen, Lithographien von einer Dampfmaschine gedruckt
Litografia e incisione, saggi di stampa litografica a macchina a vapore
- 19 MITCHELL, JOHN, 33 Old Bond-street, London (Appendix, p. 6)
The songs of Béranger illustrated and illuminated by Mrs. Frances Martindale
Recueil choisi des chants de Béranger, avec illustrations et enluminures exécutées par Mme. F. Martindale
Béranger's Gesänge erläutert und illuminirt von Mrs. F. Martindale
I versi del Béranger, con disegni e miniature dalla Signora Francesca Martindale
- 20 PATENT PRINTING SURFACE COMPANY, 9 Buckingham-street, Strand, London
Prints from elastic surfaces, upon various substances
Diverses impressions prises sur des surfaces élastiques
Abdrücke von elastischen Flächen auf verschiedenen Gegenstände
Impressioni in sostanze diverse tratte da superfici elastiche
- 21 PAYNE, J. BERTRAND, Tempsford-house, The Grange, Brompton, London
A collection of heraldic engravings
Gravures d'armoiries
Eine Sammlung von gestochenen Wappen
Collezione di incisioni blasoniche
- 22 PROPRIETOR OF 'THE ILLUSTRATED LONDON NEWS,' 198 Strand, London
Specimens—*Impressions*—Proben—*Saggi*
- 23 ROWNEY, GEORGE, & Co., 10 & 11 Percy-street, London, w. (Appendix, p. 49)
Chromolithographs
Impressions chromolithographiques
Chromolithographien—*Cromolitografie*
- 24 SADDLER, JOHN, 6 Southampton-street, Fitzroy-square, London
Framed proof impressions of line engravings
Epreuves de gravures au trait encadrées
Probeabdrücke von Linien-Gravirungen
Prove avanti lettera di incisione a taglio in cornice

- 25 *SCHENCK, FRED., 10 Hanover-st., Edinburgh
Collection of lithographed portraits
Portraits lithographiés
Eine Sammlung lithographirter Portraits
Collezione di ritratti in litografia
- 26 STANFORD, EDWARD, 6 Charing-cross, Lond.
Specimens of engraving and lithography
Épreuves de gravures et de lithographies
Proben von Gravirung und Lithographie
Saggi di incisione e di litografia
- 27 STEPHENSON, BLAKE, & Co., Sheffield and London
Printed specimens of type
Épreuves typographiques
Gedruckte Schriftproben
Campioni di tipi, stampati
- 28 VIRTUE & Co., 294 City-road, London
Engravings from steel and wood
Épreuves de gravures sur acier et sur bois
Stahlstiche und Holzschnitte
Prove da incisioni in acciaio e in legno
- 28A WALLIS, GEORGE, 16 Victoria-grove, Fulham-road, London
Specimens of autotypography
Épreuves autotypographiques
Proben von Autotypographie
Saggi di autotipografia
- 30 *YATES & Co., Old Radford, near Nottingham
Toys, fancy printing, &c.
Jouets et impressions de fantaisie, etc.
Spielsachen, Fantasiedruck etc.
Stampa di fantasia, trastulli, ecc.

Books—*Livres*—Bücher—*Libri*.

- 31 *BOND, J. J., 39 Queen Anne-street, Wimpole-street, London
Books—Handbook of Dates
Livres—Manuel de Dates
Bücher—Handbuch von Zeitangaben
Libri—Manuale di Date
- 32 BRADBURY, EVANS, & Co., Whitefriars, London
Printed books, illustrations, &c.
Livres imprimés, gravures, etc.
Gedruckte Bücher, Illustrationen etc.
Libri stampati, incisioni, ecc.
- 33 CASSELL, PETTER, & GALPIN, Ludgate-hill, London (see BAIN, A. W., Class 7)
Printed books—*Livres imprimés*—Gedruckte Bücher—*Libri stampati*
- 34 CHAMBERS, W. & R., 47 Paternoster-row, London
Books—*Livres*—Bücher—*Libri*
- 35 CLOWES, W., & SONS, Duke-street, Stamford-street, and 14 Charing-cross, London
Printed books—*Livres imprimés*—Gedruckte Bücher—*Libri stampati*
- 35A HADDAN, J. L., 14 Bessboro'-gardens, Pimlico, London

- The 'Course' system for cabs as applied to any large city
Système de payement pour les voitures publiques à la course, appliqué aux grandes villes
Das Fahrgeld-System für Droschken; kann für jede grosse Stadt angewandt werden
Sistema di pagare al corso le vetture pubbliche delle grandi città
- 36 HOUSE OF LORDS AND PARLIAMENT
Facsimiles of public and private Acts, Patents, etc.; Journals of the House of Lords, and Acts of Parliament, &c. Parliamentary Papers for the use of the House of Commons. (Appendix, p. 3)
Fac-similes d'Actes du Parlement, publics et privés, Lettres Patentes, etc.; Journaux de la Chambre des Pairs, et Actes du Parlement, etc.
Facsimiles der öffentlichen und privat-Acten des Parlements, Patent-Briefe etc.; Journale des Ober-Häuses und Parlements-Acte etc.
Fac-simili di Atti del Parlamento, tanto pubblici quanto privati, lettere patenti, ecc.
Giornali della camera dei Pari e Atti del Parlamento, ecc.
- 36A JARROLD & SONS, 12 Paternoster-row, London
Books—*Livres*—Bücher—*Libri*
- 37 LEIGHTON, JOHN, F.S.A., 12 Ormond-terrace, Regent's-park, London
Printed books, illustrative engravings, proofs of designs in gold, &c.
Livres imprimés, gravures, épreuves de dessins en or, etc.
Gedruckte Bücher, gestochene Illustrationen, Proben von Zeichnungen in Gold etc.
Libri stampati, incisioni illustrative, prove di disegni in oro, ecc.
- 38 LOW, SAMPSON, SON, & MARSTON, Ludgate-hill, London
Illustrated books and books in general literature
Livres illustrés, et ouvrages d'un intérêt général
Illustrirte Bücher und gewöhnliche Literatur
Libri illustrati e di libri di letteratura in generale
- 39 LOWENTHAL, J., 28 Camden-road, London
The Game of Chess—*Le jeu des Échecs*—Das Schachspiel—*Il Giuoco degli Scacchi*
- 40 MACKENZIE, WILLIAM, 47 Howard-street, Glasgow
The 'Prince of Wales Bible,' illustrated by photographs
La Sainte Bible, dite du Prince de Galles, illustrée de photographies
Die Bibel des Prinzen von Wales
La Sacra Bibbia, detta del Principe di Galles
- 41 NELSON, T., & SON, Edinburgh and London
Printed books, children's picture books, oil-colour views, phototype
Livres imprimés, livres d'images pour les enfants, impressions en couleurs, phototype
Gedruckte Bücher, Bilderbücher für Kinder
Libri stampati, libri da bambini con figure

42 ROLLS, THE MASTER OF THE, London
(Appendix, p. 6.)

Catalogue of the publications authorised by
The Lords Commissioners of H. M. Treasury
*Catalogue des publications autorisées par les
Lords du Trésor Public*

Catalog der von den Lords der Königlichen
Schatzkammer bevollmächtigten herausgege-
benen Werke

*Catalogo delle pubblicazioni autorizzate dai
Lord della Tesoreria Reale.*

43 SCIENCE AND ART DEPARTMENT, South
Kensington, London (Appendix, p. 18)

Books and new editions of books published in
Great Britain during 1866, by the following
publishers

*Œuvres nouveaux et éditions nouvelles publiés
dans le Royaume-Uni, en 1866, par les
Éditeurs suivants*

Neue Bücher und Auflagen, die von dem fol-
genden Buchhändlern während des Jahres
1866 im Vereinigten Königreich herausge-
geben wurden

*Libri nuovi od edizioni nuove pubblicati nella
Gran Bretagna nel 1866 dagli Editori i cui
nomi seguono*

Publishers Éditeurs Buchhändler Editori	No. of Pub- lications	No. of sepa- rate Vols.	Value Valeur Werth Valore
			£ s. d.
ADAMS & FRANCIS, 59 Fleet-street, London, E.C.	4	4	19 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
ADAMS, W. JAMES, 59 Fleet-street, E.C. . .	15	15	3 10 0
Printed books <i>Livres imprimés</i>			
AKRILL, 259 High-st., Lincoln	2	2	3 6
Printed books <i>Livres imprimés</i>			
ANDREWS & Co., Dur- ham	3	3	1 15 0
Printed books <i>Livres imprimés</i>			
ALLAN & Co., 9 Sta- tioners' Hall-court, London, E.C. . . .	11	11	1 15 6
Printed books <i>Livres imprimés</i>			
ALLEN, W. H. & Co., 13 Waterloo-place, s.w.	11	11	10 5 0
Printed books <i>Livres imprimés</i>			
ALLMAN, T. J., 463 Ox- ford-st., London, w.c.	45	45	4 8 3
Printed books <i>Livres imprimés</i>			

Publishers Éditeurs Buchhändler Editori	No. of Pub- lications	No. of sepa- rate Vols.	Value Valeur Werth Valore
			£ s. d.
ARTIZAN OFFICE, 19 Salisbury-st., Strand Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>	1	1	14 6
ASHER & Co., 13 Bed- ford-st. London, w.c. Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>	3	3	11 0
ATCHLEY & Co., 106 Great Russell-street, London, w.c. . . .	23	29	69 10 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BACON, G. W., & Co., 48 Paternoster-row, London, E.C. . . .	6	6	1 11 6
Printed books <i>Livres imprimés</i>			
BAGSTER (SAMUEL) & Co., 15 Paternoster- row, London, E.C. .	24	28	20 1 3
Printed books <i>Livres imprimés</i>			
BAILLIÈRE, H., 219 Re- gent-st., London, w. Printed books <i>Livres imprimés</i>	1	1	
BARCHAM, T., Reading Printed books <i>Livres imprimés</i>	3	3	1 8
BARKER, C., & SONS, 8 Birchin-lane, Lon- don, E.C.	1	1	1 1 0
Printed books <i>Livres imprimés</i>			
BEAN, C., 81 New North- road, Hoxton, Lon- don, N.	14	14	
Printed books <i>Livres imprimés</i>			
BELL & DALDY, 186 Fleet-st., London, E.C.	128	204	92 9 4
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BEMROSE, W., & SON, 21 Paternoster-row, London, E.C. . . .	14	14	1 1 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			

Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>	Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>
			£ s. d.				£ s. d.
BENNETT, A. W., 5 Bishopsgate - street- Without, E.C.	7	8	6 1 0	BOHN, HENRY G., 4 York-street, Covent- garden, London, W.C.	6	18	20 12 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BENNETT, 42 Castle-st., Aberdeen	1	1	1 0	BOOK SOCIETY, 28 Pa- ternoster-row	2	2	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BENTLEY, RICHARD, 8 New Burlington-st., London, W.	33	55	38 9 6	BRADBURY, EVANS, & Co., London			
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books, illus- trations, &c. <i>Livres imprimés, gra- vures, etc.</i> Gedruckte Bücher, il- lustrationen etc. <i>Libri stampati, incisi- oni, ecc.</i>			
BESLEY, H., South-st., Exeter	6	6	1 15 0	BROOM, W. H., 34 Pa- ternoster-row, Lon- don, E.C.	1	1	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BICKERS & SON, 1 & 54 Leicester-square, London, W.C.	11	14	6 9 6	BUCK, CORNELIUS, 23 Paternoster-row	4	4	5 5 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BINNS & GOODWIN, 123 Chancery-lane, Lon- don, W.C.	6	6	8 8 0	BUSH, R. J., 32 Charing- cross, London, S.W.	2	2	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BLACKIE, JOHN, & SON, 44 Paternoster-row, London, E.C.	13	22	37 18 0	CASSELL, PETER, & Co., Belle Sauvage- yard, London, E.C.	70	74	30 5 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BLACKWOOD, W., & Sons, Edinburgh	23	64	30 15 0	CHAMBERS, W. & R., 47 Paternoster - row, London, E.C.	16	17	2 0 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
BLACKWOOD, JAMES, & Co., 8 Lovell's-court, Paternoster-row, Lon- don, E.C.	28	28	3 10 6				
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>							

Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>
			£ s. d.
CHAPMAN & HALL, 193 Piccadilly, London, w.	53	103	55 1 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CHURCH PRESS COM- PANY, Burleigh- street, Strand . . .	1	1	2 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CHURCHILL & SONS, 11 New Burlington- street, London, w. . .	76	76	22 5 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CORNISH, BROTHERS, 37 New-street, Bir- mingham . . .	14	14	1 2 2
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CORNS & BARTLEET, High-street, Bir- mingham . . .	5	5	4 5 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
COX, GEORGE, 20 King William-st., Strand, London, w.c. . .	1	1	10 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CROSLAND, JOHN, 1 Fenchurch-street, London, E.C. . .	8	8	1 8 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
CUNDALL & MILLER, Norwich . . .	12	12	11 1
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
DAYEY, W., High- street, Canterbury . .	2	2	1 0 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			

Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>
			£ s. d.
DAY & SON, Gate-street, Lincoln's-inn-fields, London, w.c. . .	21	21	45 17 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
DEAN, T., & SON, 65 Ludgate-hill, Lon- don, E.C. . .	37	37	6 5 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
DUFFY, JAMES, 22 Pa- ternoster-row, Lon- don, E.C., & Dublin .	57	68	7 6 5
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
EDMONSTON & DOU- GLAS, Edinburgh . .	15	19	13 0 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
ELLIS, F. S., 33 King- street, Covent-gar- den, London . . .	1	1	10 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
EVANS, WILLIAM, & Co., 22 Warwick- square, London, E.C.	18	18	6 9 8
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
EYRE & SPOTTISWOODE, 43 Fleet-street, Lon- don, E.C. . .	28	28	24 13 10
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
FIELD & TIER, 136 Minories, London, E.C.	7	7	2 1 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
FORDYCE, T., Dean-st., Newcastle . . .	1	2	18 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			

Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>	Publishers <i>Éditeurs</i> Buchhändler <i>Editori</i>	No. of Pub- lications	No. of sepa- rate Vols.	Value <i>Valeur</i> Werth <i>Valore</i>
			£ s. d.				£ s. d.
FREEMASON'S MAGAZINE OFFICE, 19 Salisbury- street, Strand	1	1	18 0	GUTCH, 154 High-street, Southampton	10	10	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
FREEMAN, WILLIAM, 102 Fleet-street, Lon- don, E.C.	8	8	17 6	HALL, W. R., Kirkgate, Wakefield	1	1	5 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GADSBY, JOHN, 1 George-yard, Bou- verie-street, London, E.C.	5	7	17 8	HALL, A., & Co., 25 Paternoster-row, London, E.C.	4	4	12 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GREEN, Ipswich	1	1		HAMONET, ALFRED, 32 Sackville-street	1	1	1 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GREEN, T., High-street, Wells	3	3	18 0	HATFIELD, C. W., Don- caster	3	3	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GRIFFIN, CHARLES, & Co., 10 Stationers' Hall-court, London, E.C.	49	78	16 4 0	HARDWICKE, R., 192 Piccadilly, London, W.	34	38	12 1 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GRIFFITH & FARRAN, 2 Ludgate-hill, Lon- don, E.C.	27	27	3 13 6	HARRISON, EDWARD, 135 Salisbury-street, London, E.C.	1	1	12 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
GROOMBRIDGE, R., & Sons, 5 Paternoster- row, London, E.C.	32	55	4 18 3	HARRISON, F. M., 59 Pall Mall, London, S.W.	16	16	8 10 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
				HARROD & Co., 9 Crane-court, Fleet- street	1	1	1 1 0
				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			

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Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
HIGGINS, M. Clifton- Villas, Maida-hill	1	1	3 6
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HOGG, J., & SONS, 9 St. Bride's Avenue, Fleet-street, Lon- don, E.C.	4	4	
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HORTICULTURAL JOUR- NAL, Proprietors of, 171 Fleet-street	34	35	5 17 2
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HOTTEN, J. C., Picca- dilly	62	74	20 17 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
HOULSTON & WRIGHT, 65 Paternoster-row, London, E.C.	65	69	11 0 0
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HOULDSWORTH, J., 4 Delamere - street, Westbourne-square	1	1	
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
HOWELL, 28 Church- street, Liverpool	15	15	1 15 8
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HURST & BLACKETT, 13 Great Marl- borough-street, Lon- don, w.	32	70	48 19 6
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JACKSON, WALFORD, & HODDER, 27 Patern- oster-row, London, E.C.	36	38	6 0 0
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KELLY & Co., 18 Old Boswell-court, Tem- ple-bar, London, w.c. Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>	5	5	18 0 0
KENT, W., & Co., 23 Paternoster-row, Lon- don, E.C.	5	6	1 14 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
KNIGHT & Co., 90 Fleet-st., London, E.C. Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>	7	7	3 6 0
KNIGHTS, H., Princes- street, Ipswich Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>	7	7	5 6

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OLIVER & BOYD, Edin- burgh	84	84	7 0 2	PROSSER, Hereford	1	1	
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PAGE, T., 173 North- street, Brighton	1	1	4 6	REES & GRIPPER, Ips- wich	8	19	1 4 4
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PARKER, J. H. & JAMES, 377 Strand, London, w.c.	21	21	8 4 6	REEVE & Co., 5 Hen- rietta-street, Covent- garden, London, w.c.	18	19	21 0 0
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ROUTLEDGE, WARNE, & Co., 7 Broadway, Ludgate-hill, Lon- don, E.C.	257	264	33 10 0	SMITH, ELDER, & Co., 65 Cornhill, London, E.C.	39	44	18 3 6
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Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>				Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
SCOGGINS, J., Orwell-pl., Ipswich	1	1	5 0	SOCIETY FOR PROMOT- ING CHRISTIAN KNOW- LEDGE, Lincoln's-inn- fields	275	300	
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SEELEY, JACKSON, & HALLIDAY, 54 Fleet- street, London, E.C.	24	24	7 2 6	SPALDING CLUB, Edin- burgh	1	1	
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SHAW, J. F. & Co., 48 Paternoster-row, Lon- don, E.C.	31	31	4 8 0	STABB, JOHN, 5 Red Lion-square, W.C. .	2	2	2 0
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TWEEDIE, W., 337 Strand, London, w.c.	20	20	1 18 6
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VALE, Maidstone, Kent	1	2	1 6 0
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WARD & LOCK, 158 Fleet-street, London	59	62	10 0 6
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WARNE, F., & Co., 15 Bedford-st., Covent- garden, London, w.c.	300	316	23 13 8
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WILLIS & SOTHERAN, 42 Charing-cross, and 136 Strand, London, S.W.	14	14	1 17 0
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
WRIGHT, Nottingham	1	1	7 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
WRIGHT, Sudbury	1	1	1 6
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			
WRIGHT & SIMPKIN, 29 Newcastle-street, Strand, London, W.C.	29	29	1 4 11
Printed books <i>Livres imprimés</i> Gedruckte Bücher <i>Libri stampati</i>			

44 SOUTH KENSINGTON MUSEUM, London, W.
EDUCATIONAL DIVISION—Specimens of the
periodical and ephemeral literature of the
United Kingdom (Appendix, p. 24)

ART LIBRARY—Specimens of, 1. a universal
catalogue of books relating to the fine arts;
2. a Universal Art Inventory; 3. the
Inventory of the Museum; 4. a collection
of catalogues of local industrial Exhibitions
(Appendix, p. 39.)

SECTION D'EDUCATION—*Spécimens des publica-*

tions périodiques et éphémères du Royaume-Uni

BIBLIOTHÈQUE DE LIVRES D'ART—*Spécimens*, 1.
d'un catalogue universel de livres ayant rapport aux beaux arts; 2. *d'un Catalogue Universel d'objets d'Art*; 3. *le Catalogue du Musée*;
4. *Catalogues d'Expositions locales d'industrie*

SCHOLASTISCHE ABTHEILUNG — Proben der periodischen und Tagesliteratur im Vereinigten Königreich

BIBLIOTHEK DER KÜNSTE—Proben: 1. eines universalen Catalogs von Büchern über die schönen Künste; 2. eines universalen Catalogs über Kunstgegenstände; 3. des Catalogs des Museums; 4. einer Sammlung von Catalogen der lokalen Industrie-Ausstellungen

DIVISIONE D'EDUCAZIONE—*Saggi della letteratura periodica ed effemera del Regno Unito*
COLLEZIONE DI LIBRI D'ARTE—*Saggi*, 1. *d'un catalogo universale di libri relativi alle belle arti*; 2. *d'un catalogo universale d'oggetti d'arte*; 3. *catalogo del Museo*; 4. *cataloghi di Esposizioni locali d'industria*

45 SPOTTISWOODE & Co., New-street-square
London (Appendix, pp. 46–7, and Advertisement at beginning of the volume)

Printed books—*Livres imprimés*—Gedruckte Bücher—*Libri stampati*

46 STEWART, C. J., 11 King William-street,
West Strand, London
Books illustrative of early block or xylographic printing

Livres xylographiques démontrant l'ancienne méthode d'imprimer au moyen de planches gravées

Bücher zur Illustration des anfänglichen Block- oder xylographischen Druckes
Libri illustrativi dell' antica stampa esilografica ossia con tavolette

47 WHITAKER, JOSEPH, 10 Warwick-square,
London
Books and bindings—*Livres et reliures*
Bücher und Einbände—*Libri e rilegature*

Musical Works—*Musique*—Musik—*Musica*.

The following Publishers exhibit musical works, respecting which details will be found in the Appendix p. 4.

Les Éditeurs suivants exposent les morceaux de musique qu'ils ont publiés. On trouvera quelques détails à ce sujet Appendice, p. 4.

Die folgenden Buchhändler stellen musikalische Werke aus; man findet die nähern Einzelheiten in dem Anhang, Seite 4.

Gli Editori sottoposti espongono delle opere musicali delle quali si troverà una descrizione nell' Appendice, p. 4.

48 ADDISON & Co., 210 Regent-street, W.

49 AUGENER & Co., 4A Bozies-court, Tottenham-court-road, W.

50 BEULER, 42 Bemerton-street, Caledonian-road, N.

61 BLOCKLEY, 3 Argyll-street, Oxford-street, W.

- 52 BOOSEY & Co., 28 Holles-st., Cavendish-sq., w.
 53 BREWER & Co., 23 Bishopsgate-street-within, E.C.
 54 CAMPBELL & Co., 11 Argyll-place, w.
 55 CHAPPELL & Co., 50 New Bond-street, w.
 56 COCK, LAMBORN & Co., 61 New Bond-st., w.
 57 COCKS & Co., 6 New Burlington-street, and 4 Hanover-square, w.
 58 CRAMER & Co., 199 & 201 Regent-st., w.
 59 D'ALCORN, 8 Rathbone-place, w.
 60 DAVISON, DUNCAN & Co., 244 Regent-street, w.
 61 DEARLE & Co., 52 New Bond-street, w.
 62 DUFF & STEWART, 20 Oxford-street, and 51 Hanway-street, w.
 63 EMERY, 408 Oxford-street, w.
 64 EWER & Co., 87 Regent-street, w.
 65 HAMMOND & Co., 5 Vigo-st., Regent-st., w.
 66 HIME & Co., Manchester
 67 HOPWOOD & CREW, 42 New Bond-street, w.
 68 HUTCHINGS & ROMER, 9 Conduit-street, Regent-street, w.
 69 JEFFERYS & Co., 21A Soho-square, w.
 70 LONSDALE & Co., 26 Old Bond-street, w.
 71 METZLER & CHAPPELL, 16 & 35-38 Great Marlborough-street, w.
 72 MILLS, 140 New Bond-street, w.
 73 MUSIC LIBRARY COMPANY.
 74 MUSIC PUBLISHING Co., 60 Museum-street, and 170 High Holborn, w.c.
 75 NOVELLO & Co., 69 Dean-street, Soho, w., & 35 Poultry, E.C.
 76 OETZMANN, 27 Baker-street, and 29 Blandford-mews, w.
 77 OLLIVIER & Co., 19 Old Bond-street, w.
 78 ROLA, 22 Leinster-square, w.
 79 RUDALL, ROSE, & Co., 20 Charing-cross, S.W.
 80 SINCLAIR & Co., 40 Gt. Marlborough-st., w.
 81 WHITTINGHAM, A., 45 Frith-street, Soho, w.
 82 WILLIAMS, B., 21 Paternoster-row, E.C.
 83 WILLIAMS, W., 221 Tottenham-court-rd., w.

Playing Cards.
Cartes à Jouer.
 Spielkarten.
Carte da Giuoco.

- 84 GOODALL, CHARLES, & SON, 12 Great College-street, Camden-town, London
 85 BANCKS BROTHERS, 12 Glasshouse-street, London, w.
 86 ENGLISH, JAMES, 22 Budge-row, London
 87 REYNOLDS, JOSEPH, & SONS, 27 Vere-street, Lincoln's-inn-fields, London
 88 DE LA RUE & Co., THOMAS, 109 Bunhill-row, London
 89 WOOLLEY & Co., 210 High Holborn, London
 90 BENDA BROTHERS, 96 Newgate-street, London
 91 HUNT, JOSEPH & SONS, 30 Spital-square, Bishopgate, London

CLASS VII.

Paper, Stationery; Binding; Painting and Drawing Materials.

Objets de Papeterie; Reliures; Matériel des Arts de la Peinture et du Dessin.

Papier, Papierwaaren; Einbände; Materialien zum Malen und Zeichnen.

Carta, Cartoleria; Rilegatura; Materiali per Pittura e Disegno.

(For detailed classification, see p. xiv.)

(Voir le système de Classification, p. xiv.)

(Für detaillirte Classification, siehe Seite.)

(Vedasi il sistema di classificazione, p. xiv.)

COMMITTEE—COMITÉ
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 PREISRICHTER—GIURATO.
 Warren De la Rue, Esq. F.R.S.

ASSOCIATE—ASSOCIÉ.
 HÜLFSPREISRICHTER—GIURATI.
 F. Hankey, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ALEXANDRA PRINTING INK Co., 1 Bouverie-street, London
 Printing inks and their printing
Encres typographiques et épreuves imprimées avec ces encres
 Druckerschwärzen und Abdrücke damit
Inchiostri tipografici e prove a stampa ei medesimi
 2 *ARNOLD, FREDK., 5 Racquet-court, and 86 Fleet-street, London
 Marble papers and edges of all kinds, and account books
Papiers marbrés et gouttières marbrées de toutes espèces, et grands livres
 Marmorirte Papiere und Einfassungen aller Art
Fogli marmorizzati, e tagli marmorizzati di ogni spe

- 3 BEWICKE & VINCENT, Hackney-wick, London
Copal and other varnishes, printing varnishes, coloured printing inks
Vernis pour encres typographiques, encres typographiques de toutes couleurs
Copal- und andere Firnisse, Druckerfirnisse, bunte Druckerschwarzen
Vernici coppale ed altre, vernici tipografiche, inchiostri tipografici colorati
- 4 BRANDAUER, C., 403 New John-street West, Birmingham
Steel pens
Plumes d'acier
Stahlfedern
Penne d'acciaio
- 5 BROWN, WM., & Co., 40 Old Broad-street London
Account-book, writing, and water-mark papers, account-books, cheques, bank-notes, bonds, &c.
Papiers à registres et à lettres, papier à filigrane, registres, mandats, billets de banque, actions, etc.
Papiere für Rechnungsbücher, zum Schreiben und mit Wassermarken; Contobücher, Bankanweisungen, Banknoten, Obligationen etc.
Carta per libri da conti, carta da scrivere, carta ondata, e a filigrana, libri da conti, mandati, biglietti di banca, cedole o obbligazioni
- 6 *BUSBRIDGE & Co., East Malling Mills, Kent
Paper
Papiers
Papiere
Carta
- 7 *CARME, EUGENE, 27 Gerrard-street, Soho, London
Registered revolving lamp shade
Abat-jour tournant (enregistré)
Registrierte rotirende Lampenschirme
Ventole giranti per lumi (invenzione registrata)
- 8 COCHRAN, PETER, & Co., 17 Cable-street, Liverpool
Writing inks
Encres à écrire
Tinten zum Schreiben
Inchiostri da scrivere
- 9 CORNELISSEN, LOUIS, 22 Great Queen-street, London
Colours for chromolithography, printing, and lithography, inks and chemicals used in lithography
Couleurs pour chromolithographies, impressions et lithographies, encres et produits chimiques employés pour lithographies
Farben für die Chromolithographie, den Buchdruck und die Lithographie; lithographische Tinten und Chemicalien
[Colori per cromolitografia, stampa, e litografia, inchiostri e preparati chimici usati nella litografia]
- 10 COWAN, ALEXANDER, & SONS, 50 Cannon-street, London
Drawing, writing, and printing papers
Papiers à impressions, à lettres, à dessin
Zeichnen-, Schreib- und Druckpapiere
Carte da disegno, da scrivere, e da stampa
- 11 CROMPTON, JAMES R., Bury, Lancashire
White and coloured tissues, copying and cigarette papers
Papier de soie blanc et en couleur, papier à calquer, à cigarettes
Weisse und gefärbte Seidenpapiere, Copir- und Cigarren-Papiere
Carte sottile veline, blanche e in colori, da copia-lettere e da cigarette
- 12 GILLOTT, JOSEPH, & SONS, Victoria Works, Birmingham
Steel pens, penholders, &c.
Plumes d'acier, porte-plumes, etc.
Stahlfedern, Federhalter etc.
Penne d'acciaio, manichi da penna
- 13 GOODALL, CHARLES, & SON, 12 Gt. College-street, Camden-town, London
Playing and message cards, cardboard
Cartes à jouer, cartes d'adresse, carton
Spiel- und Visitenkarten, Cartons
Carte da giuoco, da indirizzo, cartoncino
- 14 GOODE, THOMAS, 48 Clerkenwell-green, London
Valentines
Billets de fantaisie dits 'Valentines'
Valentins (komische oder sentimentale Zueschriften)
Biglietti di fantasia detti 'Valentines'
- 15 HINKS, WELLS, & Co., Buckingham-street, Birmingham
Steel pens—*Plumes d'acier*
Stahlfedern—*Penne d'acciaio*
- 16 HYDE & Co., 61 Fleet-street, London
Writing inks, sealing wax, manifold writers, patent clamp copying apparatus
Encres à écrire, cire à cacheter, livres à copier les lettres, presse brevetée à copier
Tinten, Siegelack, Abdruckpapiere, patentirte Copirmaschine
Inchiostri da scrivere, ceralacca, copia-lettere, moltiplicatori, apparato da copiare, ad incastro, patentato
- 17 *IBBOTSON, THOMAS H., Turn Lee Mill, Glossop
Paper—*Papiers*
Papier—*Carte*
- 18 LAMB, JOHN, Holborn Paper-mills, New-castle-under-Lyne
Pottery tissue paper for printing or transferring patterns and designs on porcelain
Papiers de soie pour les poteries, employés pour imprimer la porcelaine et la faïence
Töpferei-Seidenpapier zum Druck oder Uebertragen von Mustern und Zeichnungen auf Porcellan
Carta sottile velina ceramica, per imprimere o trasferire ornati e disegni sulle porcellane

- 19 LEONARDT, D., & CATWINKEL**, Buckingham-buildings, George-street, Birmingham
Steel pens, penholders, pencil-cases
Plumes d'acier, porte-plumes, porte-crayons
Stahlfedern, Feder- und Bleistifthalter
Penne d'acciaio, manichi da penna, portapapir
- 20 *LONDON LACE PAPER COMPANY**, 278 Strand, London
Laced paper, cards, valentines
Papiers-dentelles, cartes, billets de fantaisie, dits 'Valentines'
Spitzenpapier, Karten, Valentine (scherzhafte Zuschriften)
Carte-trine, cartone, biglietti detti 'Valentines'
- 21 LYONS, WILLIAM**, Park-street, Cheetham, Manchester
Writing and copying inks
Encres à écrire et à copier
Schreib- und Copirtinten
Inchiostri da scrivere e da copiare
- 22 MORDAN, FRANCIS**, 326 City-road, London
Gold pens, sealing wax, inks, &c.
Plumes d'or, cires à cacheter, encres, etc.
Goldene Federn, Siegelack, Tinten etc.
Penne d'oro, ceralacca, inchiostri, ecc.
- 23 MYERS, M., & SON**, 99 Charlotte-street, Birmingham
Patent elastic bands, paper knives, cigar cutters, steel pens, penholders, &c.
Bandes élastiques brevetées, couteaux à papier, porte-lettres, plumes d'acier, porte-plumes, etc.
Patentirte elastische Bänder, Papiermesser, Cigarrenzwicker, Stahlfedern, Federhalter etc.
Fasce elastiche (patentate), tagliacarte, tagliasigari, penna d'acciaio, manichi da penna, ecc.
- 24 PERRY, JAMES, & Co.**, 37 Red Lion-square, London
Pens, pencils, elastic bands, inkstands, copying presses, stationers' sundries
Plumes, crayons, bandes élastiques, encrriers, presses à copier, fournitures de bureau
Federn, Bleistifte, elastische Bänder, Tinten-fässer, Copirpressen, Papierhändlerwaaren
Penna, lapis, fasce elastiche, calamai, macchina da copiare, e oggetti di cartoleria
- 25 PORTAL, W. S. & R.**, Laverstoke Mills, Elaborate water-markings in paper
Papiers filigranés
Ausgezeichnete Wassermarken in Papier
Carte per biglietti di banca con mazzetti elaborati
- 26 SAUNDERS, THOS. HARRY**, Maidstone-wharf, Queenhithe, London (Appendix, p. 48.)
Hand-made bank-note and other papers, machine-made papers
Papier pour billets de banque, etc., à la main et à la mécanique
Handpapiere für Banknoten und andere Papiere, sowie Maschinenpapiere
Carte da biglietti di banca, ed altre fatte a mano, carte fatte a macchina
- 27 SOMMERVILLE, A., & Co.**, Legge-lane, Birmingham
Steel pens, pencil-cases, writing inks
Plumes d'acier, porte-crayons, encres à écrire
Stahlfedern, Bleistifthalter, Tinten
Penna d'acciaio, portapapir, inchiostri da scrivere
- 27A STEPHENS, H. C.**, 18 St. Martins-le-Grand, London
Inks
Encres
Tinte
Tinte
- 28 TEAMS WOODPULP COMPANY**, Gateshead
Paper, millboard, cardboard, pulp, &c.
Papiers, cartes et cartons, pâte, etc.
Papier, dicke Pappendeckel, Cartonpapier, Papierbrei etc.
Carta, cartone, cartoncino, pasta, ecc.
- 29 TURNOR, M., & Co.**, Icknield Port-road, Birmingham
Steel pens, holders, pencils, &c.
Plumes d'acier, porte-plumes, crayons, etc.
Stahlfedern, Federhalter, Bleistifte, etc.
Penna d'acciaio, manichi da penna, lapis, ecc.
- 30 UNDERWOOD, JOHN**, 2 New-street-square, London
Copyable printing and writing inks, &c.
Encres sympathiques pour impressions et écriture
Sympathetische Druck- und Schreibtinten, &c.
Inchiostri da stampa e da scrivere, copiable
- 31 WATERSTON, GEORGE, & SON**, 56 Hanover-street, Edinburgh
Sealing wax
Cire à cacheter
Siegelack
Ceralacca
- 32 WEBSTER, HENRY**, 23 Litchfield-st., Soho, London
Inkstands, writing cases, desks, &c.
Encrriers, pupitres et boîtes dites papeteries
Tintenfassern, Schreibzeuge, Pulte etc.
Calamai, scrivanie, e leggi

Bookbinding.

Reliures.

Buchbinderarbeit.

Rilegatura.

- 33 BAIN, A. W.**, Frith-street, Soho, London
Bookbinding (see Cassell, Petter & Galpin, Class 6.)
Reliures
Buchbinderarbeit
Rilegatura
- 34 CAUSTON, JOSEPH, & SONS**, 47 Eastcheap, London
Account-books and commercial stationery
Grands livres et papeterie de commerce
Contobücher und Papierwaaren für Kaufleute
Libri da conti e cartoleria commerciale

- 35 DE LACY, GEORGE**, 38 Sekforde-st., Clerkenwell, London
Blocks, tools, and letters for ornamental leather gilding
Outils, planches et lettres pour la dorure du cuir
Blöcke, Werkzeuge und Buchstaben für verzierte Ledervergoldung
Tavolette, arnesi, e lettere per ornati in oro su pelle
- 36 HAMMOND, WALTER SCOTT**, 14, 15, & 16 Noel-street, Soho, London
Bookbinding
Reliures
Buchbinderarbeit
Rilegature
- 37 LAW & SONS**, 37 Monkwell-street, London
Patterns of bookbinders' cloths
Echantillons de toiles pour reliure
Leinwandmuster für Einbände
Campioni di tele per rilegature
- 38 LETTS, SON, & Co.**, 8 Royal Exchange, London
Stationery, account-books, bookbinding, maps, diaries, despatch-boxes, &c.
Papeterie, livres de comptes, carnets, boîtes à dépêches, reliures, cartes, etc.
Papierwaaren, Contobücher, Buchbinderarbeit, Karten, Tagebücher, Depeschenbüchsen etc.
Cartoleria, libri da conti, rilegature, mappe, diarii, segreteria portatili, ecc.
- 39 MORLEY, W. W.**, Wooburn, Buckinghamshire, and 38 Bread-street, London
Millboards
Cartons pour reliures
Dicke Pappdeckel
Cartoni
- 40 RAMAGE, JOHN, & Co.**, 2 Eagle-pl., London
Bookbinding
Reliures
Buchbinderarbeit
Rilegature
- 41 RIVIÈRE, ROBERT**, 196 Piccadilly, London
Bookbinding—*Reliure*
Buchbinderarbeit—*Rilegature*
- 42 TRICKETT & SON**, 67A Hatfield-street, London
Bookbinding—*Reliures*
Buchbinderarbeit—*Rilegature*
- 43 WARD, MARCUS, & Co.** (see Class 6; Appendix, pp. 50–51)
Account-books, papers, bookbinding, &c.
Grands livres, reliures, papiers, etc.
Contobücher, Papiere, Buchbinderarbeit etc.
Libri da conti, carte, rilegature, ecc.
- 44 WILSON, JAMES LEONARD**, 128 St. John-street, Smithfield, London
Book cloth
Toiles pour reliure
Leinwand für Bücher
Tele da libri
- 45 ZAEHNSDORF, JOSEPH**, 30 Brydges-street, Covent-garden, London
Bookbinding
Reliures
Buchbinderarbeit
Rilegature
-
- Artists' Materials.
- Instruments et Appareils à l'usage des Peintres, graveurs, etc.*
Materialien für Maler, Graveurs etc.
Materiali per Artisti.
- 46 BROCKEDON, WILLIAM, & Co.**, 34 Great Ormond-yard, London
Patented pure Cumberland lead for artists' pencils
Mine de plomb pure du Cumberland pour crayons (brevetée)
Patentirter reiner Graphit für Bleistifte aus Cumberland
Piombaggine pura di Cumberland (patentata) per lapis da artisti
- 47 COHEN, BARNET S.**, 9 Magdalen-row, London
Pencils
Crayons
Bleistifte
Lapis
- 48 HUGHES & KIMBER**, West Harding-street, Fetter-lane, London
Copper, steel, and zinc plates for engraving, etching, &c.
Planches de cuivre, d'acier et de zinc pour gravures, pour dessins à l'eau forte, etc.
Kupfer-, Stahl- und Zinkplatten zum Stechen, Aetzen etc.
Lastre di rame, d'acciaio e di zinco per incisioni, acqua forte, ecc.
- 49 NEWMAN, JAMES**, 24 Soho-square, London
Artists' colours, varnishes, brushes, drawing paper, &c.
Couleurs, vernis, pinceaux, papier à dessiner, etc.
Farben, Firnisse, Pinsel, Zeichnenpapier etc. für Maler
Colori, vernici, pennelli, carte da disegno, ecc., per artisti
- 50 REEVES & SONS**, 113 Cheapside, London
Artists' colours, pencils, and mathematical instruments, drawing materials in general
Couleurs, crayons, instruments de précision, instruments à l'usage des peintres
Farben für Maler, Bleistifte, mathematische Instrumente und Materialien zum Zeichnen im Allgemeinen
Colori, lapis, strumenti matematici, oggetti per disegno per artisti in generale
- 51 ROWNEY, GEO., & Co.**, 29 Oxford-street, London (Appendix, p. 49)
Artists' colours and materials
Couleurs et instruments à l'usage des peintres
Farben und Materialien für Maler etc.
Colori ed oggetti da artisti

52 SCOTT, ROBSON JOHN, 8 Whitefriars-street,
London

Various kinds of blocks for press purposes
Planches de bois divers préparées pour l'im-
primerie

Verschiedene Arten von Druckklötzen
Assi di varie specie per uso di stampa

53 WELLS, CHARLES TENNANT, 24 Bouverie-st.,
London

Box-wood blocks for wood engravers

Planches en bois de buis préparées pour la
gravure

Buchsbaumblöcke für Holzschnneider

Tasselli di bossolo preparati per incisione

54 WOLFF, E., & SON, 55 Great Queen-street,
Lincoln's-inn-fields, London

Black lead pencils, crayons, sketch-books, spec-
imen drawings, &c.

Graphite, crayons, albums, dessins, etc.

Bleistifte, Kreide, Zeichnenbücher, Muster-
Zeichnungen etc.

Lapis di piombaggine, matite, albums, saggi di
disegni, ecc.

CLASS VIII.

Applications of Drawing and Modelling
to the Common Arts.

Applications du Dessin et de la Plastique
aux Arts usuels.

Anwendungen des Zeichnens und Mo-
dellirens auf die gewöhnlichen
Künste.

Applicazioni del Disegno e della Plastica
alle Arti usuali.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillirte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

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Earl Russell, K.G.

Lord Houghton

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Right Hon. Sir G. Clerk, Bart.

Right Hon. Sir J. S. Pakington, Bart. G.C.B. M.P.

Right Hon. Sir Stafford H. Northcote, Bart. C.B.

M.P.

Right Hon. Robert Lowe, M.P.

Right Hon. C. B. Adderley, M.P.

Right Hon. H. A. Bruce, M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Sir Francis R. Sandford

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Edinburgh

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Smith Child, Esq.

George T. Clark, Esq.

William J. Hamilton, Esq.

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Frederick Leighton, Esq. A.R.A.

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H. W. Phillips, Esq.

Richard Redgrave, Esq. R.A.

John Ruskin, Esq.

Lieut.-Gen. E. Sabine, R.A. P.R.S.

H. A. Bowler, Esq. *Secretary.*

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATI.

Richard Redgrave, Esq., R.A.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

H. A. Bowler, Esq.

NOTE.—Names marked with an asterisk are those of

persons who do not exhibit in this class.

1 *BOUTELL, REV. CHARLES, M.A., Shrublands,
Laurel-grove, Penge, Surrey

Heraldic drawings and illuminations

Dessins de devises héraldiques; dessins en-
luminés

Zeichnungen von Wappen und Transparenten

Disegni e miniature blasoniche

1A BRUCCIANI, D., Galleria delle Belle Arti,
Russell-street, Covent-garden, London

Bust of H. R. H. the Prince of Wales; Sienna
scagliola column; reproduction in imita-
tion terra cotta of Marquis of Worcester,
inventor of the steam engine

- Buste de S. A. R. le Prince de Galles; colonne de Scagliola de Sienna; reproduction en terra cotta d'imitation du Marquis de Worcester, inventeur de la machine à vapeur*
 Büste des Prinzen von Wales; Saule von Sienna Scagliola; Herstellung in nachgemachter Terra-Cotta des Marquis of Worcester, Erfinders der Dampfmaschine
Busto di S. A. R. il Principe di Galles; colonna di scagliola di Siena; riproduzione in imitazione in terra cotta del Marchese di Worcester, inventore della macchina a vapore
- 1B CAUSTON, JOSEPH, & SONS (see Class 7)
 Die-sinking—*Gravures sur médailles*
 Stempelschnitt—*Incisioni a conio*
- 2 COOPER, JAMES, 111 Long Acre, London
 Carriage drawings
Dessins de voitures
 Zeichnungen von Kutschen
Disegni di carrozze
- 3 *GOULD, J. W., 33 Bayham-place, Camden Town, London
 Modelling in clay (see Architectural Court)
Moulages en argile (voir la Salle d'Architecture)
 Modellirung in Thon (siehe architectonische Abtheilung)
Modelli in Argilla (vedasi Compartimento d'Architettura)
- 4 *HEALD, BENJAMIN, 18 High-pavement, Nottingham
 Designs for lace—*Dessins de dentelles*
 Zeichnungen für Spitzen—*Disegni per trina*
- 5 JARRETT, GRIFFITH, 37 Poultry, and 66 Regent-street, London
 Heraldic and official seal engravings
Gravures de sceaux officiels et héraldiques
 Wappen und officielle Siegel
Incisioni blasoniche, e di sigilli d'ufficio
- 6 JENNER & KNEWSTUB, 33 St. James's-street, London
 Die-sinking—*Gravure en creux*
 Stempelschneiden—*Incisioni a conio*
- 8 *MARTIN, R. W., 5 St. John's-terrace, Walworth-road, London
 Modelling in clay—*Moulages en argile*
 Modellirung in Thon—*Modelli in argill*
- 9 MARTIN, THOMAS, Wolborough-st., Newton Abbot, Devon
 Wax impressions of seals engraved by machinery
Impressions en cire de cachets gravés à la mécanique
 Wachsabdrücke von Petschaften gestochen von Maschinen
Impressioni in cera di sigilli incisi a macchina
- 10 NEWMAN, CHARLOTTE I., 46 Rathbone-pl., London
 Applied designs for lace, wall papers, and china
Applications de dessins de dentelles, tentures, etc.
 Angewandte Entwürfe für Spitzen, Tapeten und Porcellan
- Disegni applicati per trine, carte da parati, ceramica, ecc.*
- 11 ORTNER & HOULE, 3 St. James's-st., London
 Die-sinking and seal-engraving
Gravures en creux, cachets
 Stempel- und Siegel-Gravirung
Incisioni a conio, e a sigillo
- 12 PUGH, BROTHERS, 9 Gt. Turnstile, London
 Heraldic painting, die-sinking, seal-engraving, illuminated stamping of paper, &c.
Dessins héraldiques, gravures en creux, cachets, impressions en relief sur papier, etc.
 Wappenmalerei, Stempel- und Siegelstechen, Reliefs in Papier gepresst
Dipintura blasonica, incisione a conio, incisione a sigillo impronte miniate su carta, ecc.
- 13 *ROBINSON, GEORGE THOMAS, F.R.I.B.A., Orleans-house, Warwick-street, Leamington
 Designs for paper hangings, wall painting, &c.
Dessins pour tentures, dessins pour la décoration des murailles
 Entwürfe für Tapeten, Wandmalerei etc.
Disegni per carte da parati, pitture a muro, ecc.
- 14 SALMON, GUSTAVE THÉODORE, 9 Summit-road, Walthamstow
 Designs for carpets—*Dessins pour tapis*
 Entwürfe für Teppiche—*Disegni per tappeti*
- 15 SCIENCE & ART DEPARTMENT, South Kensington, London (Appendix, p. 52, 62)
 Illustrations of the course of drawing, painting, modelling and studies, for the improvement of manufactures.
Illustrations des cours de dessin, de peinture, de plastique, etc., institués pour l'amélioration des industries manufacturières.
 Illustrationen für den Lehrplan im Zeichnen, Malen und Modelliren, und Studien für die Verbesserung der Manufacturen
Illustrazioni dei corsi di disegno, pittura, plastica, e studi, pel perfezionamento delle manifatture.
 Reproductions of works of art for the use of museums in Schools of Art.
Réproductions d'objets d'art pour les musées établis dans les Écoles d'Art.
 Reproduktionen von Kunstgegenständen für den Gebrauch ders Museums
Riproduzioni d'opere d'arte ad uso dei musei
- 16 *SIMPSON, MISS MARY, 1 Spring-garden-terrace, London
 Illuminated manuscripts and drawings on vellum
Manuscripts et dessins sur vélin, avec enluminures
 Illuminirte Manuscripte und Zeichnungen auf Pergament
Manoscritti e disegni miniati su cartapeccora
- 16A SLATTER, ALBERT, 6 Eversfield-place, St. Leonards-on-Sea
 Wax flowers
Fleurs artificielles de cire
 Wachsblumen
Fiori in cera

- 17 SPARKES, JOHN, School of Art, Lambeth, London (see also Architectural Court)
 Drawings and designs, models and designs in terra cotta, by students in the School of Art
Dessins et modèles en terre cuite, par les étudiants de l'Ecole d'Art
 Zeichnungen und Entwürfe, Modelle, und Entwürfe in Terracotta von Studenten der Kunst-Academie
Disegni e progetti, modelli e progetti in terra cotta degli studenti della Scuola d'Arte

- 18 *STRICKLAND, HENRY, 9 Macclesfield-street, Soho, London
 A painting of a coat of arms, &c.
Dessin héraldique, etc.
 Ein gemaltes Wappen etc.
Dipintura di una stemma, ecc.

- 19 SULMAN, BENJAMIN, 177 Upper Thames-street, London
 Die-sinking and heraldic painting, &c.
Gravures en creux, dessin héraldique, etc.
 Stempelschneiden und Wappenmalerei etc.
Incisione a conio, dipinto blasonico, ecc.

- 20 TURNER, WILLIAM, 9 Nelson-street, Camden-town, London
 Mounts for photographs, designs for ornamental purposes
Encadrements pour photographies, dessins d'ornement
 Fassungen für Photographien, Entwürfe für Verzierungen
Montature per fotografie, progetti per ornati

- 21 WARNER, SON, & Co., 18 Newman-street, London
 Impressions from seals and dies
Empreintes de sceaux, cachets, etc.
 Abdrücke von Petschaften und Stempeln
Impronte di sigilli, coni, ecc.

- 21A WARD, MARCUS, & Co., 13 Donegall-place, Belfast (Appendix, pp. 50–51)
 Illuminating, engravings, &c.
Enluminures, gravures, etc.
 Illuminirte und gestochene Werke etc.
Miniature, incisioni, ecc.

- 22 WYON, J. S. & A. B., chief engravers of H.M. seals, 287 Regent-street, London
 Engraving for public and other seals; reductions by patent engraving machine
Gravure de sceaux officiels et autres; réductions faites par la machine à graver (brevetée)
 Gravirung für öffentliche und andere Siegel, Reduction vermittelt patentirter Stechmaschine
Incisioni per sigilli d'ufficio ed altri, riduzioni a macchina per incidere (patentata)

CLASS IX.

Photographic Proofs and Apparatus.
Épreuves et Appareils de Photographie.
 Photographische Proben und Apparate.
Prove e Apparatati Fotografici.

(For detailed classification, see p. xv.)
(Voir le système de classification, p. xv.)
 (Für detaillirte Classification, siehe Seite xv.)
(Vedasi il sistema di classificazione, p. xv.)

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NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ALFIERI, CHARLES, Hanley
 Various photographs
Épreuves photographiques
 Verschiedene Photographien
Fotografie varie
- 2 AUSTEN, WILLIAM, 5 Buxton-place, Lambeth-road, London
 Photographic appliances
Appareils de photographie
 Photographische Werkzeuge
Cose attenenti alla fotografia
- 3 AYLING, STEPHEN, 493 Oxford-street, London
 Photographs and photolithographs
Épreuves photographiques et photolithographiques
 Photographien und Photolithographien
Prove fotografiche e fotolitografiche
- 4 BEASLEY, FREDERICK, JUN., 30 Upper Hamilton-terrace, St. John's-wood
 Framed photographs
Épreuves photographiques encadrées
 Eingerahmte Photographien
Fotografie in cornice

- 5 BEAU, ADOLPHE, 283 Regent-street
Photographic pictures
Épreuves photographiques
Photographische Bilder
Quadri fotografici
- 6 BEDFORD, FRANCIS, 326 Camden-rd., London
Framed photographs
Épreuves photographiques encadrées
Eingerahmte Photographien
Fotografie in cornice
- 7 *BELTON, JOHN CHARLES, 13 Clifton-villas,
Camden-square, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 8 BLANCHARD, V., 12 Camden-cottages, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 9 BOURNE & SHEPHERD, Simla, India
Photographic pictures
Épreuves photographiques
Photographische Bilder
Dipinti fotografici
- 11 BRIGGS, NETTERVILLE, 16 Upper-parade,
Leamington
Photographs
Épreuves photographiques
Photographien
Fotografie
- 13 BROWNRIGG, THOMAS M., 3 Alma-terrace,
Monkstown, Dublin
Photographs
Épreuves photographiques
Photographien
Fotografie
- 14 BULL, JOHN, Anglesey-villa, Painswick-
road, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 15 BULLOCK BROTHERS, 20 Lower-parade, Lea-
mington
Photographs
Épreuves photographiques
Photographien
Fotografie
- 16 CAITHNESS, EARL OF, 17 Hill-street, Berke-
ley-square, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 16A CALDESI, LEONIDAS, Pall Mall, London
Heraldic photographs
Photographies héraldiques
Heraldische Photographien
Fotografie d'araldo
- 17 CAMERON, MRS., Freshwater Bay, Isle of
Wight (Appendix, p. 87)
Photographs, untouched
Épreuves photographiques, sans retouche
Photographien
Fotografie
- 18 CHERRILL, NELSON K., Belmont-lodge, Lee,
near London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 19 CLARKINGTON & Co., 246 & 248 Regent-st.,
London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 20 CLAUDET, ANTOINE, 107 Regent-street, Lon-
don
Photographs
Épreuves photographiques
Photographien
Fotografie
- 21 CLAUDET, HOUGHTON, & SON, 89 High
Holborn, London
Glass and materials for photographic pur-
poses
Verres et matériel des ateliers de photographes
Glas und Materialien für photographische
Zwecke
Vetri e cose attenenti alla fotografia
- 22 COGHILL, SIR J. J., Bart., Glen Barrahan, e,
Castle Townsend, Skibbereen, Ireland
Photographs
Épreuves photographiques
Photographien
Fotografie
- 23 CRAMB BROTHERS, 67 West Nile-street,
Glasgow
Photographs
Épreuves photographiques
Photographien
Fotografie
- 23A CRUTTENDEN, J., Maidstone
Photographs
Épreuves photographiques
Photographien
Fotografie
- 24 CUNDALL & FLEMING, 168 New Bond-street,
London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 25 DALLAS, DUNCAN CAMPBELL, 108 Fleet-
street, London
Photographic engraving
Gravures photographiques
Gravirungen mit Hülfe der Photographie
Incisioni fotografiche

- 26 DALLMEYER, JOHN HENRY**, 19 Bloomsbury-street, London
Photographic lenses and apparatus
Lentilles et appareils de photographie
Photographische Linsen und Apparate
Lenti e apparati fotografici
- 27 *DAVIES, G. B.**, 22 Wellington-st., Woolwich
Photographs
Épreuves photographiques
Photographien
Fotografie
- 28 DEBENHAM, WILLIAM E.**, 158 Regent-street, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 29 DEMEZY & HEMERY**, 179 Regent-st., London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 30 DIAMOND, HUGH W., M.D.**, Twickenham
Calotypes, and portraits of the insane
Calotypes, et portraits d'aliénés
Calotypen und Portraits von Wahnsinnigen
Calotipi, e ritratti di dementi
- 31 DUNMORE, EDWARD**, 81 Malden-road, Ken-tish-town, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 32 *EDEN, A. F.**, Winchelsea, Rye, Sussex
Apparatus for taking microphotographs
Appareil de photographie microscopique
Apparat um microscopische Photographien zu nehmen
Apparato per la microfotografia
- 33 ELLIOTT, CHARLES EARP**, 36 Jewin-street, London
Photographic prints
Épreuves photographiques
Photographische Abdrücke
Impressioni fotografiche
- 34 ENGLAND, WILLIAM**, 7 St. James's-square, Notting-hill, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 35 *FAULKNER, ROBERT**, 46 Kensington-gar-dens-square, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 36 FISK, ALFRED S.**, St. John-st., Woodbridge
Photographs
Épreuves photographiques
Photographien
Fotografie
- 37 FOSTER, REGINALD LE NEVE**, East-hill, Wandsworth-common, Surrey
Photographs
Épreuves photographiques
Photographien
Fotografie
- 38 FOXLEE, EDWARD W.**, 98 Cheapside, London
Photographic portraits
Portraits photographiques
Photographische Portraits
Ritratti fotografici
- 39 *FRY, SAMUEL**, 9 Surbiton-park-terrace, Kingston-on-Thames
Photographs
Épreuves photographiques
Photographien
Fotografie
- 40 GILLARD, WILLIAM**, 4 Bolingbroke-terrace, Stoke Newington, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 41 *GODBOLD, HENRY J.**, 2 Robertson-street, Hastings
Photographs
Épreuves photographiques
Photographien
Fotografie
- 41A GRIGGS, W.**, India Museum, London
Photographs—*Épreuves photographiques*
Photographien—*Fotografie*
- 42 GRIDDALE, JOHN E.**, 25 Cranbourn-street, London
Centrifugal washing machine for photographic prints
Machine centrifuge pour laver les épreuves photographiques
Centrifugal-Waschmaschine für photographische Abdrücke
Macchina centrifuga per la lavatura delle prove fotografiche
- 43 HAES, FRANK**, 41 St. George's-place, Knightsbridge, London
Stereograms, magic lantern photographs
Épreuves stéréoscopiques, épreuves photographiques pour la lanterne magique
Stereogramme und Photographien mit der Zauberlaterne
Stereogrammi, fotografie per lanterna magica
- 44 HANCOCK, CHARLES**, 6 St. Germain's-villas, Lewisham, Kent
Process of engraving for the production of blocks for surface printing
Gravure de planches pour l'impression
Methode Blöcke zu stechen für den Druck von Zeugen
Processo di incisioni per produrre tavolette per stampare superfici

- 45 *HARE, GEORGE, 1 Lower Calthorpe-street,
Gray's-inn-road, London
Photographic apparatus
Appareil de photographie
Photographische Apparate
Apparati fotografici
- 46 HEATH, VERNON, 43 Piccadilly, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 47 HEDDERLEY, JAMES, 2 Duke-street, Chelsea,
London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 48 HEMPHILL, WILLIAM D., M.D., Upper John-
son-street, Clonmel
Photographs from nature
Épreuves photographiques d'après nature
Photographien von der Natur
Fotografie dal vero
- 49 HOPKINS, ROBERT P., High-st., Wimborne
Photographs
Épreuves photographiques
Photographien
Fotografie
- 50 HOSMER, ARCHIBALD WILLIAM, 4 Glou-
cester-place, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 51 HOW, JAMES, 2 Foster-lane, London
Photographs, photographic tent, field box
*Épreuves photographiques; tente et boîte pour
la photographie d'un transport facile*
Photographien, Zelt und Kasten, um Land-
schafts-Photographien aufzunehmen
*Fotografie, tenda da fotografia, cassetta da
campo*
- 52 JEANNERET, FRANCIS CROSBIE, 15 Grosve-
nor-place, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 53 JEFFREY, WILLIAM, 114 Gt. Russell-street,
London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 54 JONES, BAYNHAM, Selkirk-villa, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 54A JOUBERT, F. 36 Porchester-terrace, London
Enamelled portraits.
Portraits sur émaux vitrifiés.
Emaill-Portraits
Ritratti in vitro smaltato
- 55 LOCK & WHITFIELD, 178 Regent-street, Lon-
don, and 109 King's-road, Brighton
Photographic miniatures and crayon drawings
Portraits photographiques et dessins au crayon
Photographische Miniaturen und Kreide-
Zeichnungen
Miniature fotografiche e disegni a matite
- 56 THE LONDON STEREOSCOPIC AND PHOTO-
GRAPHIC COMPANY, 54 Cheapside, and 110
Regent-street, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 57 *LOVEY, EDWARD, Ponsnooth, Perran-
wharf, Cornwall
Photographs
Épreuves photographiques
Photographien
Fotografie
- 58 MACFARLANE,
Photographs
Épreuves photographiques
Photographien
Fotografie
- 59 MASON, WM. HEN., 108 King's-rd., Brighton
Photographic portraits, stereoscopic slides,
views, reproductions, &c.
*Portraits photographiques, épreuves stéréosco-
piques, vues, reproductions, etc.*
Photographische Portraits, stereoscopische
Bilder, Ansichten, Reproduktionen
*Ritratti fotografici, diaframmi stereoscopici,
vedute, riproduzioni, ecc.*
- 60 MASON & Co., 28 Old Bond-street, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 61 MAWSON & SWAN, 9 & 13 Mosley-street,
Newcastle-on-Tyne
Photographs, photographic collodion
Épreuves photographiques, collodion
Photographien und preparirtes Collodium
Fotografie, collodion fotografico
- 62 MAYALL, JOHN EDWIN, 224 Regent-street,
London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 63 *MAYER BROTHERS, 133 Regent-st., London
Photography
Épreuves photographiques
Photographie
Fotografie

- 64 *MCLEAN, THOMAS, & Co., 7 Haymarket, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 65 MEAGHER, PATRICK, 21 Southampton-row, London
Photographic apparatus and stereoscopes
Appareil de photographie et stéréoscopes
Photographische Apparate und Stereoscopien
Apparati fotografici, e stereoscopi
- 66 MERRICK & Co., 33 Western-road, Brighton
Photographic portraits
Portraits photographiques
Photographische Portraits
Ritratti fotografici
- 67 MOIRA & HAIGH, 1 Lower Seymour-street, Portman-square, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 68 MUDD, JAMES, St. Anne's-sq., Manchester
Photographs
Épreuves photographiques
Photographien
Fotografie
- 69 *MURRAY, ROBERT, & Co., Kinnahaird, Dingwall
Photographic and pharmaceutical chemicals
Produits chimiques pour la photographie, produits pharmaceutiques
Photographische und pharmaceutische Chemicalien
Preparazioni chimiche fotografiche e farmaceutiche
- 70 *NEWCOMBE, CHARLES THOMAS, 135 Fenchurch-street, London
Photographic portraits
Portraits photographiques
Photographische Portraits
Ritratti fotografici
- 71 *OLLEY, WILLIAM HENRY, 2 Bolingbroke-terrace, Stoke Newington, London
Photographs
Épreuves photographiques, etc.
Photographien
Fotografie
- 72 THE PANTASCOPIC COMPANY, 3 Red Lion-square, London
Pantascopic cameras, pantascopes, photographs, &c.
Cameras dits pantascopiques, système Johnson, pantascopes, épreuves photographiques, etc.
Pantascopische Cameras, Pantascopien, Photographien u. s. w.
Camere oscure a pantascopo, pantascopi, fotografia, ecc.
- 73 PATESON, ROBERT, 50A Fishergate, Preston
Photography
Épreuves photographiques
Photographie
Fotografie
- 74 PENNY, GEORGE STOTHERT, 14 Rodney-terrace, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 75 POUNCY, JOHN, Dorchester
Photography in printing ink and oil colour
Épreuves photographiques imprimées à l'encre et à l'huile en couleur
Photographie in Druckerschwärze und Oelfarbe
Fotografia in inchiostro da stampa, ed in colori ad olio
- 75A READE, Rev. J. B., Rectory, Bishopsbourne
Photographs developed by Gallic acid
Photographies développées avec l'acide gallique
Photographien, entwickelt durch Gallussäure
Fotografie sviluppate per mezzo dell'acido gallico
- 76 ROBINSON, HENRY PEACH, 68 Canonbury-park South, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 77 ROSS, JAMES, Brae-house, Edinburgh
Photographs
Épreuves photographiques
Photographien
Fotografie
- 78 ROSS, THOMAS, 53 Wigmore-street, Cavendish-square, London (Appendix, p. 88)
Photographic lenses and apparatus
Lentilles et appareils de photographie
Photographische Linsen und Apparate
Lenti ed apparati fotografici
- 79 ROUCH, W. W., & Co., 180 Strand, London
Photographic apparatus and chemicals
Appareils et produits chimiques pour la photographie
Photographische Apparate und Chemicalien
Apparati fotografici, e preparati chimici
- 80 ROUCH, W. W., 180 Strand, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 82 *SMITH, WILLIAM HENRY, 12 St. Ann's-gardens, Haverstock-hill, London
Photographs
Épreuves photographiques
Photographier
Fotografie

- 83 SOLOMON, JOSEPH**, 22 Red Lion-sq., London
Photographic materials
Appareils, etc., pour la photographie
Materialien für Photographen
Cose attenenti alla fotografia
- 84 *SPACKMAN, SERGEANT, R.E.**, South Kensington Museum
Specimens of photolithography, &c.
Spécimens de photolithographie, etc.
Photolithographische Abdrücke etc.
Saggi di fotolitografia, ecc.
- 85 SUTTON, EDWIN**, 204 Regent-street, London
Photographic miniatures and photographs on ivory
Portraits photographiques et épreuves photographiques sur ivoire
Photographische Miniaturbilder und Photographien auf Elfenbein
Miniature fotografiche, e fotografia sull' avorio
- 86 SWAN, HENRY**, 40 Charing-cross, London
New optical invention for binocular relief in miniatures
Instrument pour mettre les portraits en relief; nouvelle invention
Neue optische Erfindung für Miniaturen in Relief
Nuova invenzione ottica pel rilievo binoculare delle miniature
- 87 SWAN, JOSEPH WILSON**, 21 Leazes-terrace, Newcastle-on-Tyne
Photographically engraved plates and prints from the same
Gravure héliographique et impressions
Mit Hülfe der Photographie gestochene Platten und Abdrücke davon
Lastre incise fotograficamente, e impressioni dalle medesime
- 88 *TAGLIS, P.**, 166 Great Portland-st., London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 89 TALBOT, WILLIAM HENRY FOX**, Lacock Abbey, Wiltshire
Photographic engravings
Gravures photographiques
Gravirungen mit Hülfe der Photographie
Incisioni fotografiche
- 90 THOMAS, RICHARD WHEELER**, 10 Pall Mall, London
Photographic chemicals and apparatus, patent box tent
Appareils et produits chimiques pour la photographie; tente et boîte pour la photographie (brevetée)
Chemicalien, Apparate und patentirter Zeltkasten für Photographen
Preparazioni chimiche, e apparati fotografici, tenda cassetta (patentata)
- 91 THOMPSON, CHARLES THURSTON**, Official Photographer, South Kensington Museum, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 92 THOMPSON, STEPHEN**, 12 Clarendon-road, Notting-hill, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 93 TOD, CAPTAIN A. G.**, 2 North-parade, Cheltenham
Photographs
Épreuves photographiques
Photographien
Fotografie
- 94 *TWYMAN, JOHN C., & SON**, 87 High-street, Ramsgate
Photographs
Épreuves photographiques
Photographien
Fotografie
- 95 *THE UNITED ASSOCIATION OF PHOTOGRAPHY (Limited)**, 213 Regent-street, London
Photographs, chemicals, and materials
Épreuves photographiques, produits chimiques appareils
Photographien, Chemicalien und Materialien
Fotografie, preparati chimici, e cose attenenti
- 96 VERSCHOYLE, LIEUT.-COLONEL H. W.**, Chapel-street, Belgrave-square, London
Photographs
Épreuves photographiques
Photographien
Fotografie
- 97 WANE, MARSHALL**, Prospect-hill, Douglas, Isle of Man
Photographic portraits
Portraits photographiques
Photographirte Portraits
Ritratti fotografici
- 98 WARDLEY, GEORGE**, 10 St. Ann's-square, Manchester
Photographs
Épreuves photographiques
Photographien
Fotografie
- 99 WARNER, WILLIAM HARDING, ROSS**, Hereford (Appendix, p. 87)
Photographs
Épreuves photographiques
Photographien
Fotografie
- 100 WHITE, HENRY**, 7 Southampton-street, Bloomsbury, London
Photographs
Épreuves photographiques
Photographien
Fotografie

101 *WILLIAMS, THOMAS R., 236 Regent-street,
London
Photographic portraits
Portraits photographiques
Photographirte Portraits
Ritratti fotografici

102 WILSON, GEORGE WASHINGTON, 24 Crown-
street, Aberdeen
Photographs and stereoscopic slides
*Épreuves photographiques, épreuves stéréosco-
piques*
Photographien und stereoscopische Bilder
Fotografie e diaframmi stereoscopici

103 WINTER & SON, Register-square, Beverley
Photography
Épreuves photographiques
Photographie
Cose attenenti alla fotografia

104 WOODBURY, WALTER BENTLEY, Worcester-
park, Kingston, Surrey
Photo-relievo pictures
Épreuves photographiques en relief
Photographische Bilder in Relief
Quadri in fotorilievo

105 WORTLEY, COLONEL STUART, Rosslyn-
house, Grove-end-road, London
Photographs
Épreuves photographiques
Photographien
Fotografie

CLASS X.

Musical Instruments.

Instruments de Musique.

Musikalische Instrumente.

Strumenti Musicali.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillirte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

COMMITTEE—COMITÉ
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Earl Russell, K.G.

Lord Gerald Fitzgerald

Lord Wrottesley

Lord Houghton

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M.P.

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Right Hon. H. A. Bruce, M.P.

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Sir Francis R. Sandford

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Michael Costa, Esq.

John Ella, Esq.

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P. B. B. Peile, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Lord Gerald Fitzgerald.

ASSOCIATE—ASSOCIÉ.

HÜLFSPREISRICHTER—ASSOCIATO.

Hon. Seymour Egerton, 1st Life Guards.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 ALLISON, RALPH, & SONS, 108 Wardour-st.,
London

Pianofortes—*Pianos*

Pianofortes—*Pianoforti*

2 BESSON, F., 198 Euston-road, London (Ap-
pendix, p. 89)

Brass and wood musical instruments

Instruments de musique en cuivre et en bois

Musikalische Instrumente in Messing und Holz

Strumenti musicali d'ottone e di legno

3 BEVINGTON & SONS, 48 Greek-street, Soho,
London

Church chancel finger-organ

Orgue à clavier pour église

Kirchenorgel

Organo a tastiera per coro di chiesa

4 *BOND & Co., 44 Norton-street, Liverpool

Piano—*Piano*

Piano—*Pianoforte*

- 5 BRINSMEAD, JOHN, 4 Wigmore-st., London
Grand, oblique, and upright pianofortes, &c.
Pianos à queue, pianos obliques et droīts, etc.
Flügel, oblique und aufrechte Pianofortes etc.
Pianoforti grandi a coda, obliqui, e verticali
- 6 BROADWOOD, JOHN, & SONS, 33 Great Pul-
teney-street, London (Appendix, p. 90)
Pianofortes
Pianos
Pianofortes
Pianoforti
- 7 *BROOKS, ROBERT, 11 King-street, Luton
Chromatic stop violins
Violons à touche chromatique
Violinen mit chromatischem Griff
Violini a registro cromatico
- 8 BRYCESON BROTHERS & Co., Brook-street,
Euston-road, London
A mediæval gothic organ
Orgue d'église, style moyen âge
Eine Gothische Orgel aus dem Mittelalter
Organo di stile gotico medio evo
- 9 CLAUDE, CHARLES, & SON, 14 Somerstown-
terrace, Ossulton-street, Clarendon-square,
London
Harmoniums
Harmoniums
Harmoniums
Armoni
- 9A DAWES, W., Kingston Grove, Leeds
Patent melody attachment for harmoniums
Jeu breveté pour harmoniums
Patentirtes Accessorium für Harmoniums
Accessorio per armoni (patentati)
- 10 DISTIN, HENRY, & Co., 9, 10, & 11 Great
Newport-street, London
Musical instruments
Instruments de musique
Musikalische Instrumente
Strumenti musicali
- 12 *FARR & GREGORY, Chorlton-hall, Victoria-
park, Manchester
Pianofortes
Pianos
Pianofortes
Pianoforti
- 13 GILMOUR, JAMES, & Co., 158 Argyle-street,
Glasgow
Patent improved harmonium organs
Orgue-harmoniums perfectionnés et brevetés
Patentirte verbesserte Harmonium-Orgeln
Organi armoni perfezionati (patentati)
- 14 *IVORY & PRANGLEY, 275 Euston-rd., London
Pianos
Pianos
Pianos
Pianoforti
- 15 KELLY, CHARLES, 11 Charles-st., Berners-
street, London
Harmoniums
Harmoniums
Harmoniums
Armoni
- 16 KIRKMAN, JOSEPH, & SON, 3 Soho-square,
London
Pianofortes
Pianos
Pianofortes
Pianoforti
- 17 LACHENAL, ELIZABETH, 3 Little James-st.,
Bedford-row, London
English concertinas
Concertinas anglais
Englische Concertinas
Concertine inglesi
- 17A LAKIN, F. H., 213 Union-street, Aberdeen
Pianos—*Pianos*
Pianofortes—*Pianoforti*
- 17B NAISH, —, Wilton
Piano-hammer damper, &c.
Étouffoir de piano, etc.
Pianohammerdämpfer u. s. w.
Spequitojo di piano, ecc.
- 17C RAMSDEN, —, Leeds
Harmonium
Harmonium
Harmonium
Armonio
- 18 READ, MRS. L., 17 Sussex-place, South
Kensington, London
Chromatic harmonium
Harmonium à progression chromatique
Chromatisches Harmonium
Armonio cromatico
- 20 STAIGHT BROTHERS, 35 Charles-street, Hat-
ton-garden, London
Ivory and sharps mounted on pianoforte keys
(patented)
*Touches en ivoire pour claviers de pianos (bre-
vetées)*
Patentirte elfenbeinerne Claviertasten
Tasti da pianoforte (patentate)
- 21 *STIDOLPH, G. F. & I., Cumberland-street,
Woodbridge, Suffolk
Organ—*Orgue*
Orgel—*Organo*
- 23 *VIMEUX, EUGÈNE, 80 Upper Stamford-
street, London
New musical wind instrument
Nouvel instrument à vent
Neues musikalisches Blasinstrument
Nuovo strumento musicale a fiato
- 24 WORNUM, ROBERT, & SONS, The Hall, Store-
street, London
Pianofortes
Pianos
Pianofortes
Pianoforti

CLASS XI.

Medical and Surgical Instruments and Apparatus.

Appareils et Instruments de l'Art Médical.

Medicinische und chirurgische Instrumente und Apparate.

Strumenti ed Apparati Medici e Chirurgici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

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George T. Clark, Esq.

Arthur Farre, Esq. M.D.

William J. Hamilton, Esq.

A. J. B. Beresford Hope, Esq. M.P.

J. W. Hulke, Esq. F.R.C.S.

James Luke, Esq.

John Francis Maguire, Esq. M.P.

John Marshall, Esq. F.R.C.S.

William O. Priestley, Esq. M.D.

Richard Redgrave, Esq. R.A.

Lieut. Gen. E. Sabine, R.A. P.R.S.

S. James A. Salter, Esq. M.D.

James Syme, Esq. F.R.C.S.

F. Seymour Haden, Esq. F.R.C.S. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Sir J. F. Olliffe, M.D.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 *ARBuckle, JOSEPH, 5 Cambridge-street, Glasgow

Orthopædic instruments, &c.

Instruments orthopédiques, etc.

Orthopädische Instrumente etc.

Strumenti ortopedici, ecc.

2 ASH, CLAUDIUS, & SONS, 7, 8, & 9, Broad-street, Golden-square, London

Mineral teeth and dental materials

Dents de pâte minérale, instruments à l'usage des dentistes

Künstliche Zähne und Materialien für Zahn-ärzte

Denti minerali, e materiali da dentista

3 BACON, GEORGE WASHINGTON, 48 Paternoster-row, London

Parlour gymnasiums and trapeze

Appareils gymnastiques et trapèze de salon

Stuben-Gymnasiums und Trapezium

Ginnasio e trapezio da camera

5 CAITHNESS, EARL OF, 17 Hill-street, Berkeley-square, London

Artificial leg

Jambe artificielle

Künstliches Bein

Gamba artificiale

5A CONDY, H. B. (See Class XLIV.)

Air test and water test

Sépomètre d'air ; sépomètre d'eau

Luftprobe und Wasserprobe

Strumenti per provar l'aria e l'acqua

6 CRAPPER & Co., White House, Broad-street, Hanley

Dental appliances

Appareils à l'usage des dentistes

Zahnarzt-Apparate

Meccanismi da dentista

7 CRISP, EDWARDS, M.D., 42 Beaufort-street, Chelsea, London

Eyes of 600 species of animals; a new method of teaching comparative anatomy

Yeux de 600 espèces d'animaux ; nouvelle

méthode d'enseigner l'anatomie comparée

Augen von 600 Thiergattungen; eine neue Methode, um vergleichende Anatomie zu lehren

Occhi di 600 specie d'animali ; nuovo metodo

per insegnare l'anatomia comparata

8 GABRIEL, M. & A., 64 Ludgate-hill, London

Mechanical dentistry

Dents artificielles

Künstliche Zähne

Denti artificiali

9 *HALLAM, FREDK. H., 24 Grove-place, Alhambra-road, London

Dental instruments

Instruments à l'usage des dentistes

Instrumente für Zahnärzte

Strumenti da dentista

10 *HARNETT, WM., 12 Pantion-square, London

Mineral teeth, dental instruments

Dents de pâte minérale ; instruments à l'usage des dentistes

Künstliche Zähne und Instrumente für Zahn-ärzte

Denti di pasta minerale ; strumenti da dentista

12 *LAW, JAMES, S. W. Thistle-lane, Edinburgh

Dental instruments

Instruments à l'usage des dentistes

Instrumente für Zahnärzte

Strumenti da dentista

13 LEMALE, T., & Co., 62 Chandos-st., Strand, London

Mineral teeth

Dents de pâte minérale

Künstliche Zähne

Denti minerali

- 14 LONGDON, F., & Co., Canal-street, Derby
Surgical elastic belts, stockings, &c.
Ceintures et bas élastiques, etc.
Chirurgische elastische Leibbinden, Strümpfe
etc.
Calze e cinti elastici chirurgici, ecc.
- 15 MARSDEN, W. J., & Co., Upperthorpe-road,
Sheffield.
Respirators, sun shades, chest-protectors
Appareils respiratoires, abat-jours, plastrons
Respiratoren, Augenschirme, Brustbeschützer
Respiratori, tese, pettorine
- 16 MASTERS, MOSES, 210 New Kent-road, Lon-
don
Artificial limbs
Membres artificiels
Künstliche Glieder
Membra artificiali
- 17 NORMAN, S., JUN., 3 Oakley-street, Lam-
beth, London
Artificial foot for a wooden leg, lift for short
leg, cork foot, &c.
*Pied artificiel pour une jambe de bois, appareil
pour hausser une jambe courte, pied artificiel
de liège, etc.*
Künstlicher Fuss für ein hölzernes Bein, Un-
terstützung für ein kurzes Bein, Korkfuss
etc.
*Piede artificiale per stampella, rialzo per
gamba corta, piede artificiale di sughero*
- 18 *O'NEILL & THOMPSON, 7 Henry-st., Dublin
Surgical instruments and cutlery
Instruments de chirurgie, coutellerie
Chirurgische Instrumente und Messerschmiede-
waaren
Strumenti chirurgici e coltellineria
- 19 PACHE, CHARLES, 63 Lower Hurst-street,
Birmingham
Artificial eyes, human and animal
Yeux artificiels d'hommes et d'animaux
Künstliche Menschen- und Thieraugen
Occhi artificiali umani e d'animali
- 20 *PATRICK, HUGH WM., 18 Broad-street,
Golden-square, London
Dental specialties
Spécialités de chirurgie dentaire
Gegenstände für Zahnärzte
Specialità per dentista
- 21 REDFORD, GEORGE, M.R.C.S., London
Model of a portable stretcher for the army
Modèle de brancard militaire portatif
Modell einer Tragbahre für das Militair
Modello di barella militare portatile
- 22 REIN, F. C., & SON, 108 Strand, London
Patented acoustical and surgical instruments
and appliances
*Instruments acoustiques, instruments et appa-
reils de chirurgie (brevetés)*
Patentirte acoustische und chirurgische Instru-
mente
*Strumenti e cose attenenti all' acustica ed alla
chirurgia (patentati)*
- 23 REIN, MRS. F. C., 108 Strand, London
Surgical appliances, anatomical supports, &c.
Objets accessoires de chirurgie, bandages, etc.
Chirurgische Hilfsmittel, anatomische Unter-
stützungen etc.
*Cose attenenti alla chirurgia, sostegni anato-
mici, ecc.*
- 24 ROTH, DR. M., 16A Old Cavendish-street,
London
Objects for scientific physical training, hy-
gienic and curative purposes
*Objets de gymnastique scientifique, hygiénique
et curative*
Gegenstände für wissenschaftliche körperliche Bil-
dung, hygienische und heilende Zwecke
Oggetti di ginnasio, per usi igienici e curativi
- 25 SALT, THOMAS PARTRIDGE, 21 Bull-street,
Birmingham
Patent trusses, surgical belts, artificial limbs,
&c.
*Bandages herniaires brevetés, ceintures éla-
stiques, membres artificiels, etc.*
Patentirte Bruchbänder, chirurgische Gürtel,
künstliche Glieder etc.
*Cinti (patentati), cinture chirurgiche, membra
artificiali, ecc.*
- 26 SAVORY & MOORE, 143 New Bond-street,
London (see Class 44, and Appendix, p. 137)
Improved medical field panniers for military
service, medicine chests, &c.
*Ambulances militaires perfectionnées, caisses de
médicaments, etc.*
Medicinische Tragkörbe für den Krieg, Medi-
cinkisten etc.
*Cofani da medici, pel servizio militare, casse
di medicine, ecc.*
- 28 TWINBERROW & SON, 2 Edwards-street,
Portman-square, London
Patent reservoir syringes and syphon syringes
*Clysoportes à réservoir brevetées, et clysoirs à
siphon*
Patentirte Reservoir und Saugespritzen
Siringhe a cisterna ed a sifone patentate

29 WAITE, GEORGE, 2 Old Burlington-street,
London

Surgical instruments and appliances
Instruments et appareils de chirurgie
Wundärztliche Instrumente und Hilfsmittel
Strumenti ed apparecchi chirurgici

30 WRIGHT, HENRY G., M.D., 23 Somerset-
street, Portman-square, London

Medical and surgical apparatus
Instruments de l'art médical
Medicinisches und chirurgische Apparate
Apparecchi medici e chirurgici

31 YOUNG, HENRY, 16 Carthusian-st., London
Chest protectors, corn and bunion plaister, &c.
Plastrons, taffetas pour la guérison des oignons
et des cors aux pieds, etc.

Brustbeschützer, Hühneraugenpflaster etc.
Pettorine, cerotti per calli e bugnoni, ecc.

CLASS XII.

Mathematical Instruments and Appa-
ratus for teaching Science.

Instruments de Précision et Matériel de
l'Enseignement des Sciences.

Mathematische Instrumente und Ap-
parate für den wissenschaftlichen
Unterricht.

Strumenti ed Apparatî Matematici per
l'Insegnamento della Scienza.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillirte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

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T. Cooke, Esq.

Warren De La Rue, Esq.

William J. Hamilton, Esq.

A. J. B. Beresford Hope, Esq. M.P.

John Francis Maguire, Esq. M.P.

Professor Miller

Rev. Canon Moseley

Richard Redgrave, Esq. R.A.

Lieut.-Gen. E. Sabine, R.A. P.R.S.

Lieut.-Col. Strange

Professor Tyndall

Professor Wheatstone

Captain J. F. D. Donnelly, R.E. *Secretary.*

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

C. Brooke, Esq. F.R.S.

ASSOCIATE—ASSOCIÉ

HULFSPREISRICHER—ASSOCIATO.

Lieut.-Col. Strange, F.R.S. F.R.A.S.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 ALLEN, G. T. (see Class 17 and Appendix,
p. 91)

Pyrometer—*Pyromètre*

Pyrometer—*Pirometro*

2 ARBUCKLE, GENERAL, R.A., & ARBUCKLE,
CAPTAIN, Charlton

Barometer, thermometer, pyrophylax, or fire-
sentry

Baromètre, thermomètre, pyrophylax, ou appa-
reil pour sonner l'alarme en cas d'incendie

Barometer, Thermometer, Pyrophylax (ein
Apparat, der Feuersbrunst anzeigt)

Barometro, termometro, pirofilace, o avvisa-
incendio

- 3 BASHFORTH, F., 15 Campbell-terrace, Plumstead, Woolwich
Chronograph—*Chronographe*
Chronograph—*Cronografo*
- 4 BECK, R. & J., 31 Cornhill, London
Philosophical and optical instruments
Instruments d'optique et de précision
Philosophische und optische Instrumente
Strumenti ottici e fisici
- 5 BIRD, PETER HINCKES, 1 Norfolk-sq., London
Thermometers (see also Testing House)
Thermomètres (voir aussi le Bâtiment des Essais)
Thermometer (siehe auch Probierhaus)
Termometri (vedasi Casa degli Esperimenti)
- 5A CHADFEURN, C. H., & SON, 83 Lord-street, Liverpool
Magic lantern (see Testing House)
Lanterne magique (voir le Bâtiment des Essais)
Laterna magica (siehe Probierhaus)
Lanterna magica (vedasi Casa degli Esperimenti)
- 6 COLE, ARTHUR CHAS., 298 Upper Parliament-street, Liverpool
Microscopic objects
Objets microscopiques pour les microscopes
Microscopische Gegenstände
Oggetti microscopici
- 8 CRONMIRE, J. M. & H., 10 Bromehead-street, Commercial-road East, London
Drawing instruments, mathematical scales and rules
Instruments pour le dessin, instruments pour le mesurage
Zeichnen-Instrumente, Massstäbe und Lineale
Strumenti per disegno, scale matematiche e righe
- 9 *CROUCH, HY. & WM., 64 Bishopsgate-street Within, London
Microscopes, object-glasses, &c.
Microscopes, objectifs, etc.
Microscope, Objectiv-Gläser etc.
Microscopi, obbiettivi
- 10 DALLMEYER, JOHN HENRY, 19 Bloomsbury-street, London
Philosophical instruments
Instruments de précision
Philosophische Instrumente
Strumenti fisici
- 12 DESVIGNES, PETER HUBERT, Lewisham, Kent
Philosophical instruments
Instruments de précision
Philosophische Instrumente
Strumenti fisici
- 13 DUNLOP, ROBERT, Cwm Avon, Taibach
Calculating machines
Machines à calculer
Rechenmaschinen
Macchine calcolatrici
- 14 ELLIOTT BROTHERS, 449 Strand, London
Mathematical, optical, and philosophical instruments
Instruments de précision, d'optique, de physique, etc.
Mathematische, optische und philosophische Instrumente
Strumenti matematici, ottici, e fisici
- 15 FRANKHAM & WILSON, 12 Wilson-street, Gray's-inn-road, London
Aneroid mercurial and differential barometers
Baromètres anéroïdes, à mercure et différentiels
Aneroid-Quecksilber- und Differential-Thermometer
Aneroïdi a mercurio e barometri differenziali
- 16 HEATON, RALPH, & SONS, The Mint, Birmingham
Coins—*Monnaies*
Münzen—*Monete*
- 17 HEWSON, REV. W., Whitby (Appendix, p. 92)
Model of Greek-Egyptian sun-dial with steps, in the British Museum
Modèle de cadran solaire greco-égyptien à gradins, dans le Musée Britannique
Modell einer Griechisch-Egyptischen Sonnenuhr mit Stufen, in dem Britischen Museum
Modello di orologio a sole greco-egizio con gradini, esistente nel Museo Britannico
- 17A HORNE & THORNTHWAITHE, 121, 122, 123 Newgate-street, London
Artificial tourmalines
Tourmalines artificielles
Künstliche Tourmalinen
Tourmaline artificiali
- 18 KIMPTON, THOMAS, 6 Bath-street, Newgate-street, London
Mechanical calculator
Machine à calculer
Rechenmaschine
Calcolatore meccanico
- 18A LADD, W., 11 & 12, Beak-street, Regent-street, London
Electric machine
Machine électrique
Electrische Maschine
Macchina elettrica
- 19 LEVI, JOSEPH, & Co., 40 Castle-st., Holborn, London
Optical instruments, &c.
Instruments d'optique, etc.
Optische Instrumente etc.
Strumenti ottici, ecc.
- 20 MOURANT JOHN, Gronville, Jersey
Patent improved measure
Mesure perfectionnée et brevetée
Patentirtes verbessertes Mass
Misura perfezionata patentata

- 21 *NORMAN, JOHN, 178 City-road, London
Objects for the microscope
Objets pour microscopes
Gegenstände für das Microscop
Objetti per microscopio
- 24 ROSS, THOMAS, 53 Wigmore-street, Cavendish-square, London (Appendix, p. 88)
Optical instruments
Instruments d'optique
Optische Instrumente
Strumenti ottici
- 26 *SCOTT, W. L., Analytical Laboratory, Westbourne-park, London
Fire alarm, improved thermometers, musical notation instruments, &c.
Cloche d'alarme en cas d'incendie, thermomètres perfectionnés, instruments pour noter la musique, etc.
Feueralarm, verbesserte Thermometer, musikalische Indicateure etc.
Allarme per incendio, termometri perfezionati, strumenti per annotazioni musicali, ecc.
- 27 SMITH, EDWARD, M. D., 16 Queen Anne-street, London
Spirometer—*Spiromètre*
Spirometer—*Spirometro*
- 28 STATHAM, WM. EDW., 111 Strand, London
(See Class 89, and Appendix, p. 322)
Apparatus used in teaching physics
Appareils pour l'enseignement de la physique
Apparate für den physikalischen Unterricht
Apparati usati nell' insegnamento della fisica
- 30 TYER, EDWARD, 15 Old Jewry-chambers, London
Astronomical observing chair
Fauteuil pour les observations astronomiques
Beobachtungsstuhl für Astronome
Sedia per osservazioni astronomiche

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

Cartes et Appareils de Géographie et de Cosmographie.

Karten, geographische und cosmographische Apparate.

Mappe e Apparati Geografici e Cosmografici.

(For detailed classification, see p. xvi.)
(*Voir le système de classification, p. xvi.*)
(Für detaillirte Classification, siehe Seite xvi.)
(*Vedasi il sistema di classificazione, p. xvi.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Earl of Rosse, K.P.
Earl Russell, K.G.
Lord Houghton
Right Hon. W. F. Cowper, M.P.
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Right Hon. Sir J. S. Pakington, Bart. G.C.B. M.P.
Right Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.
Right Hon. Robert Lowe, M.P.
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Richard Redgrave, Esq. R.A.
Samuel Redgrave, Esq.
Captain G. H. Richards, R.N.
Lieut.-Gen. E. Sabine, R.A. P.R.S.
Edward Stanford, Esq.
Colonel Sykes, M.P.
James Wyld, Esq. M.P.

G. C. T. Bartley, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Capt. G. H. Richards, R.N.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Lieut.-Col. A. C. Cooke, R.E. F.R.G.S.

1 ADMIRALTY, HYDROGRAPHIC OFFICE, Whitehall, London (Appendix, p. 281)

Charts, atlas, sailing directions, globe showing magnetic curves

Cartes, atlas; instructions pour la navigation; tracés des courbes magnétiques sur la sphère

Karten, Atlas, Schiffahrts-Instructionen, eine Erdkugel mit den magnetischen Bögen

Carte, atlanti, istruzioni nautiche, globo dimostrante le curve magnetiche

4 GEOLOGICAL SURVEY OF GREAT BRITAIN, 28
Jermyn-street, London
Geological maps and sections
Cartes géologiques, avec coupes
Geologische Karten und Sectionen
Mappe e profili geologici

5 NELSON, THOS., & SONS, 29 Paternoster-
row, London
Wall maps
Cartes murales
Wandkarten
Mappe a muro

6 ORDNANCE SURVEY OF GREAT BRITAIN,
Southampton (Appendix, p. 93)
Maps, &c.
Cartes géographiques, etc.
Karten etc.
Mappe, ecc.

7 STANFORD, EDWARD, 6 Charing-cross, Lon-
don
Maps, atlases, &c.
Cartes géographiques, atlas, etc.
Karten, Atlasse etc.
Mappe, atlanti, ecc.

GROUP III.

Furniture and other Objects for the Use of Dwellings.*

Meubles et autres Objets destinés à l'Habitation.†

Möbel und andere Hausgeräthe.‡

Mobilia e altri Oggetti d' Uso Domestico.§

CLASS XIV.

Fancy Furniture.

Meubles de Luxe.

Luxusmöbel.

Mobilia di Lusso.

(For detailed classification, see p xvi.)

(*Voir le système de classification*, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(*Vedasi il sistema di classificazione*, p. xvi.)

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Lord Henry C. G. Lennox, M.P.

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Lord De L'Isle and Dudley

Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.

Right Hon. W. E. Gladstone, M.P.

Sir Coutts Lindsay, Bart.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

Right Hon. W. L. Joynt, Lord Mayor of Dublin

John Brown, Esq. Master Cutler of Sheffield

W. Burges, Esq.

William Hawes, Esq.

William Holland, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

Jonathan Pim, Esq. M.P.

William Scholfield, Esq. M.P.

William Tite, Esq. M.P.

M. Digby Wyatt, Esq.

E. P. Bartlett, Esq. *Secretary.*

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

J. H. Pollen, Esq., M.A.

ASSOCIATE—ASSOCIÉ

HULFSPREISRICHTER—ASSOCIATO.

Owen Jones, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 ALDERMAN, JOHN, 16 Soho-square, London
(Appendix, p. 97)

Invalid couch, chairs, and carriages

Bergères, chaises et voitures de malades

Ruhebetten, Stühle und Wagen für Kranke

Cuccette, poltrone, e carriuole da ammalati

2 ARTHUR, FREDERICK, 3 Sackville-st., London

Gothic decoration, section of room

*Décors dans le style gothique, section d'appar-
tement*

Gothische Decoration, Durchschnitt eines
Zimmers

Decoramenti gotici, sezione di stanza

3 ASSER & SHERWIN, 81 Strand, London

Miniature billiard-table

Petit billard

Miniatur-Billard

Bigliardo piccolo

4 BETTRIDGE, JOHN, & Co., 19 Barr-street,
St. George's, Birmingham

Papier-mâché, japanned pianoforte, chairs,
tables, tea-trays, &c.

*Papier-mâché, piano, chaises, tables, plateaux,
vernissés, etc.*

Papier-mâché, lackirtes Pianoforte, Stühle,
Tische etc.

*Carta-pesta, pianoforte verniciato a lacca, sedie,
tavole, ecc.*

5 *BRUNSWICK BROTHERS, 72 Newman-street,
Oxford-street, London

Inlaid cabinet-work

Meubles incrustés

Eingelegte Möbel

Stipetteria intarsiata

6 *CHAMBERS, WILLIAM, Ozell-street, Broad-
street, Birmingham

Metallic bedsteads

Lits de fer et de fonte

Eiserne Bettstellen

Lettiere metalliche

7 CLARK & Co., Rathbone-place, London

Improved show-case, book-case and wardrobe

Montre, bibliothèque et armoire perfectionnées

Verbesserte Aushängkasten, Büchergestell

und Kleiderschrank

Vetrina, libreria, e guardaroba perfezionati

* Ordinary objects for the use of dwellings, the merit of which lies in their useful qualities combined with cheapness, are methodically exhibited in Class 91, Group X.

† Les objets d'usage courant destinés à l'habitation, et qui se recommandent par les qualités utiles unies au bon marché, sont méthodiquement exposés dans la Classe 91, Groupe X.

‡ Gewöhnliche Hausgeräthe, die sowohl praktisch wie wohlfeil sind, sind ausgestellt in Klasse 91, Gruppe X.

§ Gli oggetti ordinari d' uso domestico, il cui merito principale consiste nella utilità combinata all' economia, sono metodicamente esposti alla Classe 91, Gruppo X.

- 8 COLE, HENRY, C.B., South Kensington Museum, London (Appendix, p. 96)
Radiating frames for economising space in exhibiting drawings, medals, &c.
Cadres rayonnants économisant l'espace pour l'exposition des dessins, des médailles, etc.
Kreisartige Gestelle um Platz bei der Ausstellung von Bildern, Medaillen etc. zu sparen
Intelaiature a raggi per risparmiare spazio nell'esporre disegni, medaglie, ecc.
- 9 COLLMANN, L. W., 53 George-st., Portman-square, and 70 Grosvenor-street, London
Architectural decoration, cabinet furniture, &c.
Décor d'architecture, meubles incrustés, etc.
Architectonische Decorationen, Kunstschlerarbeit etc.
Decoramenti architettonici, ebanisteria, ecc.
- 10 CRACE, JOHN GREGORY, 14 Wigmore-street, London
Decorations and cabinet-work
Décor et objets d'ébénisterie
Decorationen und Tischlerarbeit
Decoramenti e stipetteria
- 11 DIXON, THOMAS, 76 Hampstead-rd., London
Nightingale cradles and bedsteads
Berceaux et lits, dits 'Nightingale'
Wiegen und Bettstellen, genannt 'Nightingale'
Cune e lettiera dette 'alla Nightingale'
- 12 DYER & WATTS, 2 Northampton-street, Islington, London
Patent pine and stained furniture
Meubles de bois de sapin et de bois teint, brevetés
Patentirte Möbel aus Fichtenholz, sowie farbig gebeizte
Mobilia di pino e legni colorati (patentati)
- 13 FILMER, THOMAS HENRY, & SON, 31 & 32 Berners-street, London
Patent extending dining table, registered convertible ottoman
Table de salle à manger à rallonges, brevetée; divan à développement, enregistré
Patentirter Esstisch mit Auszug, veränderbare Ottomane (registriert)
Tavola da pranzo espansiva (patentata), divano convertibile (invenzione registrata)
- 14 GILLOW & Co., Upholsterers to the British Commission for the Paris Exhibition, 176 Oxford-street, London
Artistic furniture
Meubles d'ébénisterie d'art
Kunstreiche Möbel
Mobilia artistica
- 14A HAMILTON, WILLIAM, 45 Ship-st., Brighton
Patent folding spring mattresses
Sommiers élastiques se fermant (brevetés)
Zusammenlegbare elastische Matratzen
Materassi elastici ripiegabili (patentati)
- 15 HARLOW & Co., Calcutta Works, Granville-street, Birmingham
Iron and brass bedsteads, children's cots, &c.
Lits de fer et de bronze, berceaux, etc.
Eiserne und messingene Bettstellen, Wiegen etc.
Lettiera di ferro e d'ottone, cuccette da bambini, ecc.
- 16 HAYWARD, CHARLES FORSTER, F.S.A., Montague-street, Russell-square, London
Carved cabinet (see Architectural Court)
Meuble de bois sculpté (voir la Salle d'Architecture)
Schränk mit geschnitzter Arbeit (siehe architectonische Abtheilung)
Stipo intagliato (vedasi Compartimento d'Architettura)
- 17 *HERRING, SON, & CLARK, 109 Fleet-street, London
Furniture, cabinet-work
Meubles, objets d'ébénisterie
Möbel und Kunstschlerarbeit
Mobilia, ebanisteria
- 18 HOLLAND & SONS, 23 Mount-street, Grosvenor-square, London
Furniture—*Meubles*
Möbel—*Mobilia*
- 18A HOWARD & SONS, 26 Berners-street, London
Furniture—*Meubles*
Möbel—*Mobilia*
- 19 HUNTER, W. & J. R., 30 Moorgate-street, London
Cabinet furniture, &c.
Objets d'ébénisterie, etc.
Kunstschlerarbeit
Stipetteria, ecc.
- 20 INGLEDEW, CHAS., 46 Berners-street, London
Dining-room and library chairs, &c.
Chaises de salle à manger, de bibliothèque, etc.
Stühle für das Esszimmer und die Bibliothek etc.
Sedie da sala da pranzo, da biblioteca, ecc.
- 21 JACKSON & GRAHAM, 29 Oxford-st., London (Appendix, p. 96 and cover of this Catalogue)
Carpets and ornamental cabinet furniture
Tapis et objets d'ébénisterie d'art
Teppiche und verzierte Möbel
Tappeti e stipetteria di lusso
- 22 *JOUBERT, AMÉDÉE, & SON, 18 Maddox-st., London
Cabinet-work and patent music-stools and chairs
Objets d'ébénisterie; tabourets de piano et chaises brevetés
Kunstschlerarbeit und patentirte Musik- und andere Stühle
Stipetteria e sgabelli per pianoforte e sedie (patentate)
- 23 LAMB, JAMES, 29 John Dalton-street, Manchester
Decorative furniture—*Objets de décoration*
Verzierte Möbel—*Mobilia decorativa*

- 24** LOVERIDGE, H., & Co., Merridale Works, Wolverhampton
Papier-mâché trays, wares, &c.
Plateaux et autres objets de papier-mâché
Theebretter und andere Gegenstände aus Papier-mâché
Vassoi ed altri oggetti di carta-pesta
- 25** *MAGNUS, GEORGE EUGENE, 39 Upper Belgrave-place, London
Billiard-tables, chimney-pieces, &c.
Billards, cheminées, etc.
Billards, Kaminsimse etc.
Bigliardi, camminetti, ecc.
- 25A** NEVILL, LADY DOROTHY, Dangstein, Petersfield
Box made of oak wood saturated with a green fungus (*Peziza eruginosa*)
Boîte de bois de chêne, saturé avec une plante fongueuse
Kästchen von Eichenholz gemacht, mit einem grünen Schwamme gesättigt
Scatola in legno di quercia saturato con certa pianta fungosa
- 26** NORMAN & Co., 1 Spencer-road, Stoke Newington-green, London
Billiard-tables and fancy cabinet goods
Billards et meubles de luxe
Billards und zierreiche Möbel
Bigliardi e stipetteria di lusso
- 27** PEYTON & PEYTON, Bordesley Works, Birmingham
Brass and iron bedsteads, hat and coat stands
Lits de bronze et de fer, portmanteaux
Messingene und eiserne Bettstellen, Hut- und Rockgestelle
Lettiere d'ottone e di ferro, appiccatoio per abiti e cappelli
- 28** *SEDDON, CHARLES, Grosvenor-street, London
Cabinet (see Architectural Court)
Meuble (voir la Salle d'Architecture)
Schränk (siehe architectonische Abtheilung)
Stipo (vedasi Compartimento d'Architettura)
- 29** SEDLEY, ANGELO J., 38 Conduit-street, Bond-street, London
Equilibrium chairs, &c.
Chaises dites en équilibre, etc.
Equilibriumstühle etc.
Sedie a equilibrio, ecc.
- 30** SILVER, S. W., & Co., Cornhill, and Bishopsgate, London
Household furniture
Meubles de service
Hausmöbel
Mobilia domestica
- 31** SMEE, WILLIAM, & Sons, 6 Finsbury-pavement, London
Cabinet furniture
Objets d'ébénisterie
Kunstschlerarbeit
Stipetteria
- 32** SPIERS & SON, 102 & 103 High-st., Oxford
Cyclopean wash-stands
Lavabos, dits 'cyclopeens'
Waschtische (genannt cyclopisch)
Lavamani, detti ciclopei
- 33** THURSTON & Co., 14 Catherine-st., Strand, London
Billiard-table and fittings
Billard et accessoires
Billard und Zubehör
Bigliardi e accessori
- 34** TROLLOPE, GEORGE, & Sons, Halkin-street West, Belgrave-square, London
Cabinet furniture
Objets d'ébénisterie
Kunstschlerarbeit
Stipetteria
- 35** WARD, JOHN, 5 Leicester-square, London
Invalid chairs
Chaises de malades
Krankenstühle
Poltrone da ammalati
- 36** WEARE & Co. (Limited), 22 St. John's-sq., Wolverhampton
Fixed and portable water-closets
Appareils inodores (water-closets) fixes et portatifs
Fixirte und tragbare Abtritte
Apparati idraulici per latrine, fissi o portatili
- 37** WERTHEIMER, SAMSON, 154 New Bond-st., London
Cabinets, tables, bronzes, vases, &c.
Meubles, tables, bronzes d'art, vases, etc.
Schränke, Tische, bronzirte Artikel, Vasen etc.
Stipi, tavole, bronzi, vasi, ecc.
- 38** WHYTOCK, RICHARD, & Co., 9 George-st., Edinburgh
A bookcase in ebony and ivory
Bibliothèque d'ébène et d'ivoire
Ein Büchergestell in Ebenholz und Elfenbein
Libreria in ebano ed avorio
- 39** WARD, H. (see Class 42.)
Fire-screens made from birds
Écrans d'oiseaux empaillés
Feuerschirme, aus Vögeln gemacht
Parafuochi fatti di uccelli
- 40** WRIGHT & MANSFIELD, 3 Great Portland-street, Oxford-street, London
Cabinet furniture
Objets d'ébénisterie
Kunstschlerarbeit
Stipetteria
- 41** WINFIELD, R. W. & Co. (see Class 24)
Iron furniture
Ameublement de fer
Eiserne Meubel
Mobilia in ferro

CLASS XV.

Upholstery and Decorative Work.

Ouvrages de Tapissier et de Décorateur.

Tapezier- und Decorateur-Arbeit.

Tappezzerie, e Lavori Decorativi.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

*(Vedasi il sistema di classificazione, p. xvi.)*COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

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M.P.

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John G. Crace, Esq.

Solomon A. Hart, Esq. R.A.

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Owen Jones, Esq.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

Francis S. Powell, Esq. M.P.

Very Rev. Dr. Rock

William Scholefield, Esq. M.P.

George E. Street, Esq.

William Tite, Esq. M.P.

E. P. Bartlett, Esq. Secretary.

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

M. Digby Wyatt, Esq. F.S.A.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 AYCKBOURN, FREDERICK, 18 Southampton-street, Strand, London

Improved tubular air beds and pillow bolsters

Sommiers et traversins tubulaires à air perfectionnés

Verbessertes Lufttröhrenbett und Kopfkissen

Letti e capezzali tubulari, ad aria, perfezionati

1A ADAMS, THOMAS, & Co. (Limited), Nottingham

Lace curtains

Rideaux de dentelle

Spitzen-Vorhänge

Cortine di trina

3 CARINGTON, LADY, Whitehall, London

A bed designed and worked by herself

Lit, etc., projeté et exécuté par elle-même

Ein von ihr entworfenes und ausgeführtes Bett

Letto progettato ed eseguito da se stessa

4 FRY, WILLIAM, & Co., 31 Westmoreland-st., Dublin

Curtains—*Rideaux*—Vorhänge—*Cortine*

5 HAMILTON, W., (see Class 14)

Sybarisian couch

Canapé sybarite

Sybaritisches Sofa

Sofà da sibarita

6 HEAL & SON, 196 Tottenham-court-road, London

Bed-room furniture

Ameublement de chambre à coucher

Möbel für Schlafzimmer

Mobili da camera da letto

6A NADAL, J., & Co. (see Class 53)

Ornamental fountain lamp

Fontaine avec lampe d'ornement

Springbrunnen mit verzierter Lampe

Lame con fonte ornata

7 SCOWEN, THOMAS L., Allen-road, Stoke Newington, London

Canopies for carriages, boats, &c.

Bannes de voitures, de bateaux, etc.

Baldachins für Wagen und Boote etc.

Cieli di carrozze, di gondole, ecc.

8 TEMPLETON, J. & J. S., 51 Fordneuk-street, Glasgow

Curtains

Rideaux

Vorhänge

Cortine

9 VERRICCHIO, DIONISIO, Cleveland-yard, Cleveland-street, Fitzroy-square, London

Patent metallic mattress with side action springs

Sommier métallique breveté avec ressorts latéraux

Patentirte metallische Matratze mit Federkraft an der Seite

Materassi metallici con molle ad azione laterale (patentati)

Decorative Work.

Ouvrages de Décorateur.

Decorateur-Arbeit.

Lavori Decorativi.

10 *BROTHERS, CHARLES, 3 Victoria-terrace, Leamington

Embossed enamelled doors; wall decoration

Portes émaillées et sculptées; décors d'architecture

Emallirte Thüren in erhabener Arbeit; Wand-Decoration

*Porte a rilievi smaltate, decorazioni murali*11 CLAYTON & BELL, Regent-street, London
Cartoon for mosaic picture (see Architectural Court)*Carton de tableau en mosaïque (voir la Salle d'Architecture)*

Entwurf für ein Gemälde in Mosaik (siehe architectonische Abtheilung)

Cartone per quadro in mosaico (vedasi Compartimento d'Architettura)

12 COULTON, I. L., 7 Robert-st., Hampstead-road, London

Decorative screens and designs

Paravents de décoration, et dessins

Decorative Schirme und Entwürfe

Paraventi e ornati decorativi

13 DEER, FREDERICK A., Neath, Glamorgan-shire
Leather picture frames
Cadres de cuir pour tableaux
Lederne Bilderrahmen
Cornici di cuoio

14 HARLAND & FISHER, Southampton-street, London
Architectural decoration and furniture (see Architectural Court)
Décors d'architecture, et meubles (voir la Salle d'Architecture)
Architectonische Verzierungen und Möbel (siehe architectonische Abtheilung)
Mobilia e decorazioni architettoniche (vedasi Compartimento d'Architettura)

15 HEATON, BUTLER, & BAYNE, Garrick-street, Covent-garden, London
Architectural decoration (see Architectural Court)
Décors d'architecture (voir la Salle d'Architecture)
Architectonische Verzierungen (siehe architectonische Abtheilung)
Decorazione architettonica (vedasi Compartimento d'Architettura)

16 JACKSON, GEORGE, & SONS, 49 Rathbone-place, London
Ceiling and wall decoration; papier-mâché and carton-pierre
Ornements de plafond et décorations murales; papier-mâché et carton-pierre
Zimmerdecken- und Wand-Decorationen; Papier-mâché und Steinpappe
Decorazione di soffitti e muri; carta-pesta, e cartone-lapideo

17 LOVEGROVE, JOHN JAMES, 6 Pembroke-place, Spring-grove, Middlesex
Decorations
Décors
Decorationen
Decoramenti

18 *OWEN, ARTHUR JAMES, & Co., 116 New Bond-street, London
Decorations and furniture
Décors et meubles
Decorationen und Möbel
Decoramenti e mobilia

19 *READ, WILLIAM, 9 Spencer-place, Brixton-road, London
Imitations of inlaid wood, marbles, &c.
Imitations de bois, de marbres, etc., incrustés
Nachahmung von eingelegter Arbeit in Holz, Marmor etc.
Imitazioni di intarsio in legno, pietra, ecc.

20 RICHARDSON, RICHARD, Newcastle-on-Tyne
Imitations of wood and marbles
Imitations de bois et de marbres
Nachahmung von Holz und Marmor
Imitazioni di legno e marmi

21 RORKE, JOHN, 73 Oakley-street, Lambeth, London
Improved projecting letters for shop-fronts, &c.

Lettres en relief perfectionnées pour les façades de magasins, etc.

Verbesserte vorstehende Buchstaben für Läden etc.

Lettere in rilievo perfezionate per mostre di botteghe, ecc.

22 ROWLEY, CHARLES, Bond-street, New-cross, Manchester
Decorative furniture and picture-frames
Meubles de luxe et cadres
Verzierte Möbel und Bilderrahmen
Mobilia decorativa e cornici

23 TAYLOR, JOHN, 45 Connaught-terrace, Edgware-road, London
Imitations of woods and marbles
Imitations de bois et de marbres
Nachahmung von Holz und Marmor
Imitazioni di legni e marmi

23A WOOLLAMS, W., & Co., High-street, Manchester-square, London (see Architectural Court)
Architectural decorations in paper
Papiers peints pour tentures et décoration
Architectonische Decorationen in Papier
Decoramenti architettonici in carta

Church Furniture, &c.

Décors, etc., d'Église.

Kirchenmöbel etc.

Arredi da Chiesa, ecc.

24 BAKER, REV. R. S., Hargrave Rectory, Kimbolton
Church eagle lectern, carved in wood
Lutrin d'église de bois sculpté
Kirchenpult in Holz geschnitten
Leggio da chiesa ad aquila, intagliato in legno

25 *BLOMFIELD, A. W., 8 Adelphi-terrace, London
Pastoral staff (see Architectural Court)
Crosse d'évêque (voir la Salle d'Architecture)
Krummstab (siehe architectonische Abtheilung)
Pastorale (vedasi Compartimento d'Architettura)

26 COX & Co., Southampton-street, London
Ecclesiastical furniture (see Architectural Court)
Meubles et décors pour les services religieux (voir la Salle d'Architecture)
Kirchengeräthe (siehe architectonische Abtheilung)
Arredi ecclesiastici (vedasi Compartimento d'Architettura)

27 JONES & WILLIS, Great Russell-st., London
Ecclesiastical furniture (see Architectural Court)
Meubles et décors pour les services religieux (voir la Salle d'Architecture)
Kirchenmöbel (siehe architectonische Abtheilung)
Arredi ecclesiastici (vedasi Compartimento d'Architettura)

- 28 O'CONNOR, A. & W. H., 4 Berners-street, London
Ecclesiastical decoration (see Architectural Court)
Décors pour les services religieux (voir la Salle d'Architecture)
Kirchendecoration (siehe architektonische Abtheilung)
Decoramento ecclesiastico (vedasi Compartimento d'Architettura)
- 29 SMITH, FRANK & Co., 13 Southampton-street, Strand, London
Ecclesiastical embroidery (see Architectural Court)
Ornaments d'église brodés (voir la Salle d'Architecture)
Stickereien für Kirchen (siehe architektonische Abtheilung)
Ricamo ecclesiastico (vedasi Compartimento d'Architettura)

CLASS XVI.

Crystal, Fancy Glass, & Stained Glass.
Cristaux, Verrerie de Luxe et Vitraux.
Crystall-, Fantasie- und buntes Glas.

Cristalli, Cristalli di Lusso e Cristalli Colorati.

(For detailed classification, see p. xvi.)

(*Voir le système de classification*, p. xvi.)

(Fürdetaillirte Classification, siehe Seite xvi.)

(*Vedasi il sistema di classificazione*, p. xvi.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.

Lord Stanley, M.P.

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M.P.

Right Hon. W. E. Gladstone, M.P.

Sir Philip de M. G. Egerton, Bart. M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

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R. L. Chance, Esq.

John R. Clayton, Esq.

E. W. Cooke, Esq. R.A.

William Hawes, Esq.

Dr. A. W. Hoffman

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

John E. Millais, Esq. R.A.

F. W. Moody, Esq.

Nathaniel Powell, Esq.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

R. H. Soden Smith, Esq. Secretary.

Alan S. Cole, Esq., Secretary (Stained Glass).

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO

E. W. Cooke, Esq. R.A. F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Henry Chance, Esq.

1 AIRE & CALDER BOTTLE COMPANY, 83 Upper Thames-street, London
Glass bottles and utensils
Bouteilles et ustensiles de verre
Flaschen und andere Glaswaaren
Bottiglie e utensili di vetro

2 CHANCE BROTHERS & Co., near Birmingham
Window, optical, and ornamental glass; shades and miscellaneous articles in glass; stained glass windows (see Testing House)
Verre à vitres, verre d'optique et d'ornement; globes et verroterie, vitraux peints (voir le Bâtiment des Essais)

Fensterglas, optische Gläser und verziertes Glas; Glasglocken und verschiedene andere Artikel in Glas

Cristalli da finestra, ottici, e d'ornamento; campane ed articoli vari di cristallo; finestre a vetri colorati (vedasi Edificio degli Esperimenti)

3 DEFRIES, J., & SONS, London
Chandeliers, lamps, lustres, table glass, china, earthenware, &c.

Lustres, lampes, candélabres, gobeletterie, porcelaines, faïences, etc.

Candelaber, Lampen, Trinkgläser, Porcellan, irdenes Geschirr etc.

Lampade, lumi, viticci, cristallami da tavola, porcellane, maiolica, ecc.

4 DOBSON, J., 19 St. James's-street, London
Engraved and cut glass, lustres, and lamps
Cristaux taillés et gravés, lustres et lampes
Geschliffenes und geschliffenes Glas, Kronleuchter und Lampen
Cristalli incisi e arruotati, viticci e lampade

5 GARDNER, H. & J., 453 Strand, London
Glass, china, and chandeliers
Cristaux, porcelaines et lustres
Glas, Porcellan und Candelaber
Cristalli, porcellane, e lampade

7 GREEN, JAMES, 35 Upper Thames-street, London
Cut and engraved table glass, chandeliers, &c.
Gobeletterie de cristal taillé et gravé, lustres, etc.
Geschliffene und geschnittene Trinkgläser, Candelaber etc.
Cristalli da tavola arruotati e incisi, lampade, ecc.

8 GREENE, HENRY, 16 King William-street, City, London
Table glass, hanging lustres
Gobeletterie, lustres
Trinkgläser und Kronleuchter
Cristalli da tavola e viticci a muro

9 *HARTLEY, JAMES, & Co., Sunderland
Sheet, rough plate, and coloured glass; stained glass windows (see Testing House)
Verres à vitres ordinaires, glaces brutes, vitres colorées, vitraux peints (voir le Bâtiment des Essais)

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- Fensterglas, Glasplatten und gefärbtes Glas
Cristallo in lastre, rozzo, e colorati
- 10 MARCH, THOMAS CHARLES, London
Crystal framed mirrors, plateaux, and contrivances for arranging flowers
Glaces encadrées, plateaux, et corbeilles à fleurs
Mit Glas gefasste Spiegel, Plateaux und Vorkehrungen zum Aufstellen von Blumen
Specchi in cornici di cristallo, vassoi, e recipienti per fiori
- 11 MILLAR, JOHN, & Co., 2 South-street, St. Andrew-street, Edinburgh
Cut and engraved glass
Cristaux taillés et gravés
Geschliffene und gravirte Gläser
Cristalli incisi e arruotati
- 12 MORINI, C. DE, 87 Newman-street, Oxford-street, London
Diaphanic stained glass (see Testing House)
Vitreaux peints diaphanes (voir le Bâtiment des Essais)
Buntes durchsichtiges Glas (siehe Probierhaus)
Cristalli colorati diafani (vedasi Edificio degli Esperimenti)
- 13 NEWMAN, P. H., 46 Rathbone-place, London
Stained glass (see Testing House)
Vitreaux peints (voir le Bâtiment des Essais)
Buntes Glas (siehe Probierhaus)
Cristalli colorati (vedasi Edificio degli Esperimenti)
- 13A OSLER, F. & C., 45 Oxford-street, London
Chandeliers in cut crystal glass
Lustres de cristal taillé
Kronleuchter aus geschnittenem Crystallglas
Lampade di cristallo arruotato
- 14 PELLATT & Co., 25 Baker-street, London
Engraved table glass, &c.
Gobeletterie, cristaux gravés, etc.
Gravirte Trinkgläser etc.
Cristalli da tavola incisi, ecc.
- 15 PETRE & TUCKER, 34 Stamford-st., London
Crystal mirrors, flower and fruit stands, table decorations, &c.
Glaces, surtout de table, ornées de fleurs et de fruits, etc.
Crystallspiegel, Gefässe für Blumen, Früchte, Tisch-Decorationen etc.
Specchi di cristallo, recipienti per fiori e frutti, ornamenti per tavola
- 16 PHILLIPS, W. P. & G., & PEARCE, 358 Oxford-street, London (Appendix, p. 98, and Advertisement inside the Cover of this Catalogue)—(see Architectural Court)
Engraved and cut glass, lustres and lamps
Verres taillés et gravés, lustres et lampes
- Gravirtes und geschliffenes Glas, Kronleuchter und Lampen
Cristalli arruotati e incisi, lucerne e lumi
- 17 POWELL, JAMES, & SONS, Whitefriars, London
Table glass; cut, engraved, coloured, and chemical glass
Gobeletterie; cristaux taillés, gravés et colorés; appareils de chimie
Trinkgläser, geschliffenes, gravirtes, buntes und chemische Glaswaaren
Cristalli da tavola; cristalli arruotati, incisi, colorati, e per la chimica
- 18 COPELAND, W. T., & SONS, 160 New Bond-street, London
Cut and engraved glass
Cristaux taillés et gravés
Geschliffene und gravirte Glaswaaren
Cristalli arruotati e incisi
-
- Stained Glass Windows.
Vitreaux.
Bunte Fenster.
Finestre a Vetri Colorati.
(In 'Grand Vestibule.')
- 18A BAILLIE & Co., 118 Wardour-street, London
- 19 CLAUDET, HOUGHTON, & SON, 89 High Holborn, London
- 21 COTTIER, D., Carrick-street, Glasgow
- 22 COX & SON, 28 Southampton-st., London
- 23 DURY, T., Warwick
- 24 EDMUNDSON & SONS, New Wakefield-street, Manchester
- 25 FIELD & ALLAN, Leith
- 26 FORREST, JAMES A., & Co., 58 Lime-street, Liverpool
- 27 HARDMAN & Co., Newhall-hill, Birmingham
- 28 HEATON, BUTLER, & BAYNE, Garrick-street, Covent-garden, London
- 29 LAVERS & BARRAUD, Endell-street, London
- 30 LYON, J. T., 40 Fitzroy-square, London
- 31 MORRIS & Co., 26 Queen-square, Bloomsbury, London
- 32 POWELL & SONS, Whitefriars, London
- 33 WARD & HUGHES, 67 Frith-street, Soho-square, London

CLASS XVII.

Porcelain, Earthenware, and other
Fancy Pottery.

*Porcelaines, Faïences et autres Poteries
de Luxe.*

Porcellan, Töpferwaaren und andere
geschmackvolle Töpfereien.

*Porcellana, Terraglia, ed altra Ceramica
di Lusso.*

(For detailed classification, see p. xvi.)

(Voir le système de classification, Seite xvi.)

(Für detaillirte Classification, siehe p. xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

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Mr. Alderman Copeland

Frederick Doulton, Esq. M.P.

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Lonis Huth, Esq.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

Charles Mills, Esq.

Alfred Morrison, Esq.

J. C. Robinson, Esq. F.S.A.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

Godfrey Wedgwood, Esq. Jun.

R. H. Soden Smith, Esq. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Rt. Hon. W. E. Gladstone, D.C.L. M.P.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

J. C. Robinson, Esq. F.S.A.,

1 ADAMS, JOHN, & Co., St. James-street, Broad-
street, Hanley

Jasperware and cameos, stone, majolica, &c.

*Poteries imitant le jaspé, camées, grès, ma-
joliques, etc.*

Nachgeahmte Jaspis- und Cameo-Artikel,
Steingut, Majolica (eine Art Faïence)

*Porcellane diaspro e cameo, grès, maioliche,
ecc.*

2 ALLEN, G. T., Watcombe, near Torquay (Ap-
pendix, p. 91)

Terra cotta articles

Objets en terra cotta

Gegenstände aus Terra-Cotta

Oggetti in terra cotta

3 BISHOP'S WALTHAM CLAY COMPANY (Limited)

Bishop's Waltham, Hants

Pottery, terra cotta and ornamental bricks

*Poteries, objets de terra cotta, briques d'orne-
ment*

Steingut, Gegenstände aus Terra-Cotta, ver-
zierte Backsteine

*Ceramica, oggetti in terra cotta, mattoni da
lusso*

4 BROWNFIELD, W. COBRIDGE, Staffordshire

Potteries

Stoneware

Poteries de grès

Steingut

Vasellame di grès

5 COPELAND, W. T., & SONS, Stoke-upon-Trent
and 160 New Bond-street, London

Porcelain vases, ceramic statuary, earthen-
ware, &c.

*Vases de porcelaine, statuettes de céramique,
faïences, etc.*

Porcellan-Vasen, ceramische Statuen, Töpfer-
waaren etc.

*Vasi di porcellana, statuaria, ceramica, terra-
glie, ecc.*

6 DOULTON & WATTS, Lambeth, Surrey

Stoneware for general and chemical pur-
poses, &c.

*Poteries de grès pour les ustensiles de chimie,
etc.*

Steingut für gewöhnliche und chemische
Zwecke

Porcellana di grès per utensili per chimica

7 GOODE, THOMAS, & Co., 19 South Audley-st.,
London

Fine porcelain and majolica

Objets de porcelaine et de majolique

Feines Porcellan und Majolica

Porcellane fini e maiolica

9 JONES, GEORGE, Trent Pottery, Stoke-upon-
Trent

Earthenware, granite, and majolica

Faïences, grès et majoliques

Irdene Geschirre, Granit und Majolica

Terraglie, granito, maioliche

10 MALKIN & Co., Newport Works, Burslem

Patent encaustic and tessellated tiles, &c.

*Carreaux de mosaïque incrustés et émaillés,
etc. (brevetés)*

Emaillirte würflige Ziegel (patentirt) etc.

Pianelle ad encausto e a tasselli (patentate)

11 MINTON & Co., Stoke-upon-Trent

China and earthenware, majolica, enamelled
tiles, mosaics, &c.

Porcelaines, faïences, majoliques, carreaux de mosaïque incrustés et émaillés, etc.

Porcellan, Töpferwaaren, Majolica, emaillirte Ziegel, mosaische Arbeit etc.

Porcellane e terraglie, maiolica, pianelle smaltate, mosaici, ecc.

12 PINDER, BOURNE, & Co., Burslem
Earthenware

Faïences

Irdene Geschirre

Terraglie

13 PRICE, JOSEPH & CHARLES, & BROTHERS,
Thomas-street, Bristol

Stoneware

Poteries grès

Steingut

Vasellame di grès

14 PRIMAVESI, F., & SONS, Cardiff and Swansea

Earthenware, printed, &c.

Faïences, décorées, etc.

Gemusterles Irdenes Geschirr

Terraglie colorite ed altre

15 ROYAL WORCESTER PORCELAIN WORKS (see
Class 16, No. 8)

Porcelain

Porcelaines

Porcellan

Porcellane

16 WEDGWOOD, JOSIAH, & SONS, Etruria,
Stoke-upon-Trent (Appendix, p. 99)

Jasper, majolica, stoneware, &c.

Porcelaines opaques imitant le jaspe, majoliques, grès, etc.

Jaspiswaare, Majolica, Steingut etc.

Diaspro, maiolica, vasellame di grès

CLASS XVIII.

Carpets, Tapestry, and other Stuffs for Furniture.

Tapis, Tapisseries et autres Tissus d'Ameublement.

Teppiche, Tapezerei und andere Stoffe für die Möblirung.

Tappeti, Tappezzerie ed altre Stoffe per Mobilia

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

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Peter Graham, Esq.

William Hawes, Esq.

Michael D. Hollins, Esq.

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H. L. Lapworth, Esq.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

John Whitwell, Esq.

Ernest Corbière, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Peter Graham, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BOYLE & SMITH, 9 Great Marlborough-street,
London

Carpets

Tapis

Teppiche

Tappeti

2 BRINTON & LEWIS, Kidderminster

Wilton pile, Brussels, chenille carpets and
rugs

*Tapis de Bruxelles, moquettes, tapis et foyers,
de chenille*

Wilton-Sammet Teppiche, Brüsseler Teppiche,
Chenille-Teppiche und Decken

*Tappeti e tappetini Wilton, felpati di Brus-
selle, e vellutati*

3 GREGORY & Co., 212 Regent-street, London

Brussels and velvet pile carpets

Tapis de Bruxelles et tapis veloutés

Brüsseler Teppiche und solche mit sammet-
ner Oberfläche

Tappeti di Brusselle, e a felpa vellutata

- 4 *HARRISON, CHARLES, Stourport
Brussels and velvet pile carpets
Tapis de Bruxelles et tapis veloutés
Teppiche von Brüssel und mit sammetner
Oberfläche
Tappeti di Brusselle, e a felpa vellutata
- 5 HENDERSON & Co., Durham
Royal Wilton carpet
Moquette, dite 'Royale'
Wilton-Teppiche genannt 'Königliche'
Tappeto Wilton detto 'Reale'
- 6 HOFF & SONS, James-street, Louth, Lin-
colnshire
Carpets
Tapis
Teppiche
Tappeti
- 7 HUMPHRIES, JAMES, & SONS, Mill-street,
Kidderminster, and 3 King Edward-street,
Newgate-street, London
Carpets and rugs
Tapis et foyers
Teppiche und Decken
Tappeti e tappetini
- 8 JACKSON & GRAHAM (see Class 14, Appendix,
p. 96, and back of Cover of this Catalogue)
Carpets
Tapis
Teppiche
Tappeti
- 9 LAPWORTH BROTHERS, 22 Old Bond-street,
London
Carpets
Tapis
Teppiche
Tappeti
- 10 MORTON & SONS, Kidderminster
Brussels and velvet pile carpets
Tapis de Bruxelles et tapis veloutés
Brüsseler Teppiche, und solche mit sam-
metner Oberfläche
Tappeti di Brusselle, e a felpa vellutata
- 11 PATENT WOOLLEN CLOTH COMPANY, Leeds
Felted wool carpets, &c.
Tapis de feutre de laine, etc.
Wollene Filzteppiche
Tappeti a feltro di lana, ecc.
- 12 ROBINSON, VINCENT, & Co., 38 Welbeck-st.,
London
Indian carpets and mattings
Tapis des indés
Indische Teppiche und Mattenwerk
Tappeti e stuoi indiani
- 13 SOUTHWELL, H. & M., Bridgnorth
Carpets
Tapis
Teppiche
Tappeti
- 14 TAPLING, BEALL, & Co., 1 Gresham-street
West, London
Axminster carpets, and wall decorations
Tapis d'Axminster et ornemens d'appartement
Axminster Teppiche und Wand-Decorationen
Tappeti Axminster, e decorazioni murali
- 15 TEMPLETON, JAMES, & Co., Glasgow and
London
Carpets, hearth-rugs, &c.
Tapis, foyers, etc.
Teppiche und Decken-Kamine etc.
Tappeti, tappetini, ecc.
- 16 TEMPLETON, J. & J. S., 51 Fordneuk-street,
Glasgow
Axminster and Brussels carpets
Tapis d'Axminster et de Bruxelles
Axminster und Brüsseler Teppiche
Tappeti di Axminster, e di Brusselle
- 17 WATSON, BONTOR, & Co., 35 & 36 Old
Bond-street, London
Carpets—*Tapis*
Teppiche—*Tappeti*
- 18 WILKINSON, JOHN, SON, & Co., Leeds (Ap-
pendix, p. 10)
Felt carpets
Tapis de feutre
Filzteppiche
Tappeti a feltro
- 19 WILLIS, H. R., & Co., 6 Church-street, Kid-
derminster
Hearth-rugs—*Tapis de foyer*
Decken vor die Kamine—*Tappetini*
- 20 WOODWARD & GROSVENOR, Stour Vale
Mills, Kidderminster, and 145, Cheapside,
London
Brussels and velvet pile carpets
Tapis de Bruxelles et tapis veloutés
Brüsseler Teppiche und solche mit sam-
metner Oberfläche
Tappeti di Brusselle ed a felpa vellutata
- 21 WOODWARD, PALMER, & RADFORD, Water-
side Mills, Kidderminster, and 145 Cheap-
side, London
Carpets and rugs
Tapis et foyers
Teppiche und Decken
Tappeti e tappetini

Floor-Cloth, &c.
Toiles Cirées, etc.
Fussdecken etc.
Tele Incerate, ecc.

- 22 BRITANNIA RUBBER & KAMPTULICON COM-
PANY, 40 Cannon-street, London
Kamptulicon elastic floor-cloth
Tapis de pied élastique, dit 'Kamptulicon'
Elastische Fussdecken, genannt 'Kamptulicon'
Incerato da pavimento in 'Kamptulicon' elastico
- 23 CHORLEY & DEBENHAM, Avenue-road, Cam-
berwell, London
Floor-cloth
Toiles cirées pour planchers
Decken für den Fussboden
Incerato da pavimento
- 24 CORK CARPET COMPANY (Limited), Ab-
church-chambers, Abchurch-lane, London
Cork carpet—*Tapis de liège*
Korkteppiche—*Tappeto in sughero*

- 25 COW, HILL, & Co., 46 & 47 Cheapside, London
Serrated rubber door mat
Natte en caoutchouc à surface raboteuse
Rauhe Thürmatte von Caoutchouc gemacht
Stuoia in gomma elastica dentata
- 27 DEED, JOHN S., & SONS, 451 Oxford-street, London
Cocoa-nut fibre matting and mats, sheepskin rugs
Tapis et nattes faits de fibres de coco; tapis de peau de mouton
Mattenwerk und Matten von Cocosnussfasern, Schaffeldecken
Stoie e stoini di fibra di noce di cocco, tappetini di pelle di pecora
- 27A FIRTH & SONS (see Class 30)
Floor cloth
Toile pour tapis
Fussdecken
Incerato da tappeto
- 28 HERSEE & SMYTH, Mitcham, Surrey
New patent floor-cloth
Toile cirée brevetée
Neue patentirte Fussdecke
Nuovo incerato da pavimento (patentato)
- 29 JONAS, SIMONSEN, & Co., 2 Bow-lane, London
Imitation leather
Imitations du cuir
Nachgemachtes Leder
Imitazione di cuoio
- 30 KOHNSTAMM, HEIMAN, 48 Cannon-street, London
American leather-cloths
Draps de cuir américain
Amerikanisches Ledertuche
Tela-cuoio americano
- 31 LEATHER CLOTH COMPANY (Limited), 4 Cannon-street, London
Leather-cloth
Draps de cuir végétaux
Ledertuch
Tela-cuoio
- 32 NAIRN, MICHAEL, & Co., Kirkcaldy (Appendix, p. 100)
Floor-cloths
Toiles cirées
Fussdecken
Incerati da pavimento
- 33 TAYLER, HARRY, & Co., 42 St. Paul's Churchyard, London
Kamptulicon floor-cloth
Tapis de pied, dit 'Kamptulicon'
'Kamptulicon'-Fussdecken
'Kamptulicon' da pavimento
- 34 TRELOAR, THOMAS, 67 Ludgate-hill, London
Matting and mats
Tapis et nattes
Mattenwerke und Matten
Stuoie stoini
- 35 TRESTRAIL, CHARLES, & Co., 19 Walbrook, London
Kamptulicon, for various purposes
'Kamptulicon,' pour divers usages
'Kamptulicon' für verschiedene Zwecke
'Kamptulicon' per vari oggetti
- 36 TULL, WILLIAM, & Co., John-street, Roupell-street, Lambeth, London
Kamptulicon floor-cloth
Tapis de pied, dit 'Kamptulicon'
'Kamptulicon'-Fussdecken
'Kamptulicon' da pavimento
- 37 WEBB, EDWARD, Copenhagen-st., Worcester
Hair-cloth and curled hair
Tissus de crin et crin frisé
Haartücher und Haarlocken
Tela di crino, e crino torto
- 38 WHITELEY, T. R. (Trade Manager) West Riding Prison, Wakefield
Cocoa mats and mattings, Manilla mattings
Tapis et nattes de fibres de coco, et de chanvre de Manille
Matten und Mattenwerke von Cocosnuss- und Manillafasern
Stuoie e stoini di cocco, stuoie di Manilla
- 39 WILDEY & Co., Holland-street, Blackfriars-road, London
Manufactures from the cocoa-nut husk
Objets faits de fibres de coco
Gegenstände aus Cocosnusschülsen
Lavori in guscio di noce di cocco

CLASS XIX.

Paperhangings.
Papiers Peints.
 Tapeten.
Carte da Parati.

(For detailed classification, see p. xvii.)
 (Voir le système de classification, p. xvii.)
 (Für detaillirte Classification, siehe Seite xvii.)
 (Vedasi il sistema di classificazione, p. xvii.)

COMMITTEE—COMITÉ
 AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.
 Lord Stanley, M.P.
 Right Hon. Sir Stafford H. Northcote, Bart. C.B.
 M.P.
 Right Hon. W. E. Gladstone, M.P.
 Sir C. Wentworth Dilke, Bart. M.P.
 Edgar A. Bowring, Esq. C.B.
 Right Hon. W. L. Joynst, Lord Mayor of Dublin
 John Brown, Esq. Master Cutler of Sheffield
 John G. Crace, Esq.
 Samuel Fisher, Esq.
 William Hawes, Esq.
 J. Eliot Hodgkin, Esq.
 Michael D. Hollins, Esq.
 A. J. B. Beresford Hope, Esq. M.P.
 Samuel M. Hubert, Esq.
 Owen Jones, Esq.
 Wright Mellor, Esq.
 Philip W. S. Miles, Esq.
 William Scholefield, Esq. M.P.
 W. B. Simpson, Esq.
 William Tite, Esq. M.P.
 E. P. Bartlett, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO.

J. G. Crace, Esq.

1 COOKE, W., Grove Works, Leeds
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

2 HEYWOOD, HIGGINBOTTOM, SMITH, & Co.
 (Limited), Hyde-road, Manchester, and 10
 Avenue Parmentier, Paris
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

3 HORNE, ROBERT, 41 Gracechurch-st., London
 Pompeian decoration, block-printed on paper
Papiers pour tentures imprimés à la planche,
style pompéien
 Pompejische Decoration, von Holz auf Papier
 gedruckt
Carte stampate a decorazione pompeiana

4 JEFFREY & Co., 115 Whitechapel, and 64
 Essex-road, London
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

5 LAND, JOHN, 93 Cannon-street, London
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

6 MARSDEN, CHARLES, 224 Kingsland-road,
 Shoreditch, London
 Imitation of marble paperhanging
Papiers peints imitant les marbres
 Nachahmung von Marmor auf Tapeten
Carte da parati a marmo

7 POTTER, C. & J. G., Belgrave Mills, Over
 Darwen, Lancashire
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

8 SCOTT, CUTHBERTSON, & Co., Whitelands
 Works, Chelsea, London
 Paperhangings and decorations in relief
Papiers peints et décorations en relief
 Tapeten und Decorationen in Relief
Carte da parati e decoramenti in rilievo

9 SNAPE, WM., & Co., Livesey Fold, Darwen,
 Lancashire
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

10 WOOLLAMS, JOHN, & Co., 69 Marylebone-
 lane, London
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

11 WOOLLAMS, H. W., & Co., 110 High-street,
 near Manchester-square, London
 Paperhangings
Papiers peints pour tentures
 Tapeten
Carte da parati

CLASS XX.**Cutlery.***Coutellerie.***Messerschmiedewaaren.***Cottellineria.*

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Fürdetaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

**COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.**

Lord Henry C. G. Lennox, M.P.

Lord Stanley, M.P.

Lord Wharncliffe

Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.

Right Hon. W. E. Gladstone, M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

Right Hon. W. L. Joynst, Lord Mayor of Dublin

Charles Asprey, Esq.

John Brown, Esq. Master Cutler of Sheffield

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

J. J. Mechi, Esq.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

Fitzmaurice West, Esq.

C. A. Pierce, Esq. *Secretary.***JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.**

G. Wostenholm, Esq.

ASSOCIATE—ASSOCIÉ**HÜLFSPREISRICHTER—ASSOCIATO.**

C. Asprey, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.**1 BROOKES & CROOKES, Atlantic Works, St.**

Philip's-road, Sheffield

*Cutlery**Coutellerie**Messerschmiedewaaren**Cottellineria***2 DAVIS, J. C., 69 Leadenhall-street, London***Cutlery and knife-machines**Coutellerie et appareils d'aiguisage**Messerschmiedewaaren und Messerschär-*
*fungs-Apparate**Cottellineria e macchina da coltelli***2A *DIXON, JAMES, & SONS, Sheffield***Cutlery**Coutellerie**Messerschmiedewaaren**Cottellineria***3 MACDANIEL, CHARLES, & Co., 343 Oxford-st.,**

London

*Cutlery**Coutellerie**Messerschmiedewaaren**Cottellineria***4 MAPPIN, WEBB, & Co., Royal Cutlery Works,**
Sheffield, 77 Oxford-street, and 71 Cornhill,

London

*Cutlery, electro-silver plate**Coutellerie; objets argentés par la galvano-*
*plastie**Messerschmiedewaaren, galvanisch versilberte*
*Gegenstände**Cottellineria, argentature galvano-plastique***5 MORTON, GEORGE & JOSEPH, 39 Cheapside,**
London*Cutlery—Coutellerie**Messerschmiedewaaren—Cottellineria***6 *O'NEILL & THOMPSON, 7 Henry-st., Dublin***Cutlery—Coutellerie**Messerschmiedewaaren—Cottellineria***CLASSES XXI. and XXXVI.****Gold and Silver Plate, Jewellery, Pre-**
cious Stones, &c.*Orfèvrerie, Joaillerie et Bijouterie.**Gold- und Silbergeschirr, Geschmeide,*
*Edelsteine etc.**Oggetti d'Oro e d'Argento, Gioie, Pietre*
Preziose, ecc.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Fürdetaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

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M.P.

Right Hon. W. E. Gladstone, M.P.

Sir William Stirling Maxwell, Bart. M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

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John Brown, Esq. Master Cutler of Sheffield

Frederick Elkington, Esq.

C. F. Hancock, Esq.

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

John Hunt, Esq.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

Alfred Morrison, Esq.

William Scholefield, Esq. M.P.

H. Danby Seymour, Esq. M.P.

William Tite, Esq. M.P.

R. H. Soden Smith, Esq. *Secretary.***JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.**

Earl Dudley.

Percy W. Doyle, Esq. C.B.

ASSOCIATES—ASSOCIÉS**HÜLFSPREISRICHTER—ASSOCIATI.**

G. J. Cayley, Esq.

N. H. M. S. Maskelyne, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.**1 BENSON, J. W. (see Class XXIII.)***Jewellery—Bijouterie—Geschmeide—Gioie***2 BROGDEN, JOHN, 16 Henrietta-street, Covent-**
garden, London*Jewellery—Bijouterie—Geschmeide—Gioie*

- 3 *BRYAN, CHARLES, Mulgrave-place, West Cliff, Whitby
Jet ornaments
Objets faits de jais
Gagat-Ornamente
Ornamenti di giavazza
- 4 *BUTLER & Co., 13 St. James-street, London
Gold pens, gold and silver pencil-cases, card-cases, etc.
Plumes d'or, porte-crayons, étuis à cartes de visite, etc., en or et argent
Goldene Federn, goldene und silberne Bleistift-halter, Karten-Étuis
Penne d'oro, matitatoi d'oro e d'argento, stucchi da carte da visite, ecc.
- 5 CROUCH & SON, Edinburgh
Pebble jewellery
Bijouterie de pierres dures
Geschmeide aus Kiesel (Agat etc.)
Gioie in pietra dura
- 5A DIXON, JAMES, & SONS, Sheffield
Britannia metal goods
Objets en métal britannia
Gegenstände in Britannia-Metall
Oggetti in metallo detto 'Britannia'
- 6 *DONNE, WILLIAM, & SONS, 51 Cheapside, London
Gold and silver engraving
Orfèvrerie d'or et d'argent gravé
Gravirungen in Gold und Silber
Incisione in oro e argento
- 8 ELKINGTON & Co., 22 Regent-street, London
Gold and silver plate; the International Volunteer Challenge Trophy (the property of the United Kingdom for annual rifle competition)
Orfèvrerie d'or et d'argent; Prix du Concours International de Tir des Volontaires—(ce prix, qui a la forme d'un bouclier, est la propriété du Royaume-Uni, et est offert pour le concours annuel)
Goldene und silberne Gefässe, der Schützenpreis der Freiwilligen aller Nationen (das Eigenthum des Vereinigten Königreichs für das jährliche Schützenfest)
Ori e argenti; Premio di Sfida Internazionale dei Volontari (proprietà del Regno Unito pel concorso annuo al Tiro)
- 9 EMANUEL, HARRY, 18 New Bond-street, London
Jewellery and plate
Bijouterie et orfèvrerie
Juwelen und Silbergeschirr
Gioie, e argenterie
- 10 *GREGORY, JAMES R., 15 Russell-street, Covent-garden, London
Precious stones
Pierres fines
Edelsteine
Pietre preziose
- 11 HANCOCK, C. F., SON, & Co., 38 Bruton-street, and 152 New Bond-street, London
Jewellery and works of art in gold and silver
Bijouterie et objets d'art en or et en argent
Juwelen und Kunstgegenstände in Gold und Silber
Gioie e lavori d'arte in oro e in argento
- 12 HARDMAN & Co., Newhall-hill, Birmingham
Ecclesiastical metal plate-work (see Architectural Court)
Orfèvrerie ecclésiastique (voir la Salle d'Architecture)
Metallene Kirchengefässe (siehe architectonische Abtheilung)
Lavori ecclesiastici in metallo argentato (vedasi Compartimento d'Architettura)
- 13 *HOLLIDAY, W., 14 Nailour-street, Islington, London
Silver work (see Architectural Court)
Orfèvrerie d'argent (voir la Salle d'Architecture)
Silberne Gegenstände (siehe architectonische Abtheilung)
Argenteria (vedasi Compartimento d'Architettura)
- 14 HOWELL, JAMES, & Co., 5 Regent-street, London
Jewellery, dressing-cases, clocks, watches, artistic works in ormolu, &c.
Bijouterie, nécessaires, pendules, montres, objets d'art en or moulu, etc.
Geschmeide Toilettenkästchen, Wand- und Taschenuhren, kunstreiche Werke in Ormolu, etc.
Gioie, cassette da toaletta, orologi, orioli, lavori d'arte in metallo dorato
- 15 HUNT & ROSKELL, 156 New Bond-st., London
Works of art in silver
Objets d'art en argent
Kunstgegenstände in Silber
Lavori d'arte in argento
- 16 JACOB, A., & Co., 11 Ely-place, Holborn, London
Gilt jewellery
Bijoux dorés
Vergoldete Gegenstände
Bigiotherie dorate
- 17 *LOWE, FREDERICK, 13 Wilderness-row, London
Transparent and opaque enamels (see Architectural Court)
Emaux transparents et opaques (voir la Salle d'Architecture)
Durchsichtige und undurchsichtige Emailen (siehe architectonische Abtheilung)
Smalti trasparenti e opachi (vedasi Compartimento d'Architettura)
- 18 *LUND, WALDEMAR, & Co., 60 Chandos-street, Charing-cross, London
Aureburnean jewellery, &c.
Bijouterie d'or et d'ivoire, etc.
Geschmeide aus Gold und Elfenbein
Gioie auroburnee, ecc.

19 MAPPIN, WEBB, & Co., Royal Cutlery Works, Sheffield
Plate and fine cutlery
Orfèvrerie et coutellerie de luxe
Silbergeschirr und feine Messerschmiedewaaren
Argenterie e coltellerie fini

20 *MARSHALL, W., & Co., 24 and 25 Princes-street, Edinburgh
Jewellery
Bijouterie
Juwelen
Gioie

21 NEAL, JOHN, 18 Edgware-road, London
Jewellery, silver work, &c.
Bijouterie, objets en argent, etc.
Juwelen Gegenstände in Silber etc.
Gioie, lavori in argento, ecc.

22 *NEWBY, THOMAS, 10 Parade, Birmingham
Gold and silver pencil-cases, &c.
Porte-crayons et autres objets d'or et d'argent
Goldene und silberne Bleistifthalter
Matitatoi d'oro e d'argento

24 PHILLIPS BROTHERS, 23 Cockspur-street, London
Jewellery—*Bijouterie*
Juwelen—*Gioie*

25 *RANDEL, W. & J., 50 Vittoria-street, Birmingham
Jewellery and chain works
Bijouterie et objets de chaînes
Juwelen und Geschmeide aus Korallen
Gioie e lavori in corallo

26 SHAW & FISHER, 43 Suffolk-road, Sheffield
Electro-plate and Britannia metal
Orfèvrerie argentée par la galvanoplastie; objets en métal Britannia
Galvanisirte Gegenstände und Gegenstände in Britanniametall (eine weisse Metallcomposition)
Argentature galvano-plastiche, e metallo detto 'Britannia'

26A SKIDMORE'S ART MANUFACTURES Co., Coventry
Gold and silver plate (see Architectural Court)
Orfèvrerie (voir la Salle d'Architecture)
Gold- und Silbergeschirr (siehe architectonische Abtheilung)
Vasellami d'oro e argenteria (vedasi Compartimento d'Architettura)

27 SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, John-street, Adelphi, London (Appendix, p. 256)
The Swiney cup, designed by Daniel Maclise, R.A. Presented, with gold coin in it to the amount of 100l., every five years to the author of the best published treatise on Jurisprudence
La Coupe Swiney (dessin de D. Maclise, R.A.). Une coupe semblable renfermant une somme

de 100 livres sterling est présentée tous les cinq ans à l'auteur qui ait publié le meilleur Traité sur la Jurisprudence

Ein Preis, der 'Swiney cup' (Becker) genannt, von Daniel Maclise, von der Königlichen Academie, entworfen. Dieser Becher wird jede fünf Jahre, Goldstücke zu dem Betrage von 100l. enthaltend, dem Verfasser der besten veröffentlichten Abhandlung über Jurisprudenz zuerkannt

La tazza detta di Swiney dal disegno di Daniele Maclise, R.A. Si dà per cinque anni, e con un contenuto di 100 lire sterline, all'autore il quale avrà pubblicato il miglior trattato sopra la Giurisprudenza

28 *STAIGHT BROTHERS, 35 Charles-st., Hatton-garden, London
Imitation coral or coralline
Corail d'imitation, ou coralline
Coralline oder unechte Corallen
Imitazioni di corallo o corallina

29 THOMAS, W. J., 136 Oxford-st., London
Diamonds
Diamants
Diamanten
Diamanti

30 *TURNBULL BROTHERS, 51 Hatton-garden, London
Jet ornaments
Bijoux de jais
Gagat-Ornamente
Ornamenti di giavazza

31 WATHERSTON & SON, 12 Pall Mall East, London
Jewellery and silver plate
Bijouterie et argenterie
Juwelen und silberne Geschirre
Gioie e argenteria

32 WHEATLEY, JAMES, 65 English-st., Carlisle
Jewellery, silver plate, &c.
Bijouterie, orfèvrerie d'argent, etc.
Juwelen, silberne Geschirre etc.
Gioie, argenteria, ecc.

33 *WILEY, WILLIAM EDWARD, Albert Works, Graham-street, Birmingham
Pencil-cases, gold pens, &c.
Porte-crayons, plumes d'or, etc.
Bleistifthalter, goldene Federn etc.
Matitatoi, penne d'oro, ecc.

34 WILKINSON, T., & Co., 15 Great Hampton-street, Birmingham, and 41 Tavistock-street, Covent-garden, London
Electro-plate dinner and tea services, cake-baskets, knives, spoons, forks, &c.
Services de table, services à thé, corbeilles, etc., argentés par la galvanoplastie
Galvanisirte Tafel- und Theegeschirr, Kuchenkörbchen, Messer, Löffel, Gabeln etc.
Serviti da pranzo e da tè, panierini da paste dolci, coltelli, cucchiari, forchette, ecc., in metallo argentato alla galvano-plastica

Racing Cups—*Prix de Course.*
Wettrennen-Preise—*Premi da Corsa.*

Exhibitor <i>Exposant</i> Austeller <i>Espositore</i>	Where won, and when <i>Lieu et Année</i> Wo gewonnen, und wann <i>Il Luogo e l'Anno</i>	Manufacturér <i>Fabricant</i> Fabricant <i>Fabbricante</i>
Angell, G.	Shrewsbury, 1864	—
" "	Stockbridge, 1865	—
" "	Ascot, 1866	—
Annesley, The Earl of	Goodwood, 1860	Garrard & Co., London
Blenkiron, W.	Newcastle, 1866	E. Emmanuel & Co., London
Brayley, E.	Goodwood, 1865	London & Ryder, London
" "	Warwick, 1865	E. Emmanuel & Co., London
" "	Hereford, 1866	Hunt & Roskell, London
* Cartwright, W. S.	Bath, 1865	Garrard & Co., London
" "	Ascot, 1865	Garrard & Co., London
" "	Goodwood, 1865	Hunt & Roskell, London
" "	Brighton, 1865	Hunt & Roskell, London
Chaplin, Henry	York, 1865	S. Smith, York
	Goodwood, 1866	Hancock, Son, & Co., London
Christie, Capt.	Ascot, 1860	Garrard & Co., London
" "	Goodwood, 1862	Hancock, Son, & Co., London
Douglas, J. H.	Goodwood, 1857	Garrard & Co., London
Fisher, F.	Goodwood, 1856	Hunt & Roskell, London
Gray, G.	York, 1866	H. Preston, York
" "	Liverpool, 1864	Hancock, Son, & Co., London
Hodgman, G.	Ascot, 1864	Hancock, Son & Co., London
" "	Shrewsbury, 1866	Angell, London
Jackson, J.	Ascot, 1862	Garrard & Co., London
F'Anson, W.	York, 1864	J. Bell, York
Lafitte, C.	Goodwood, 1866	—
Lagrange, Comte de	Ascot, 1866	Garrard & Co., London
Lupin, Auguste	Goodwood, 1864	Garrard & Co., London
Masterman, T.	Stockton, 1865	E. Emmanuel & Co., London
Montgomery, A. de	Stockton, 1863	E. Emmanuel & Co., London
Naylor, R. C.	Goodwood, 1863	Garrard & Co., London
" "	Doncaster, 1863	Garrard & Co., London
" "	(not stated) 1863	Garrard & Co., London
" "	Yachting Race, 1863	Garrard & Co., London
Newcastle, The Duke of	Doncaster, 1866	—
Parr, T.	Ascot, 1856	Garrard & Co., London
Sutton, R.	Ascot, 1866	Garrard & Co., London
" "	Bath, 1866	Hunt & Roskell, London
Townley, Col.	Doncaster, 1861	Hunt & Roskell, London
Zetland, The Earl of	Ascot, 1855	Garrard & Co., London

CLASS XXII.

Bronzes and other Art Castings and Repoussé-Work.

Bronzes d'Art, Fontes d'Art diverses et Ouvrages en Métaux Repoussés.

Bronzene und andere gegossene Kunstgegenstände und Repoussé-Arbeit.

Bronzi ed altri Oggetti d'Arte, Gettati e Mortellati.

(For detailed classification, see p. xvii.)

(*Voir le système de classification, p. xvii.*)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione, p. xvii.*)

COMMITTEE—COMITÉ
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Right Hon. W. E. Gladstone, M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

Right Hon. W. L. Joynst, Lord Mayor of Dublin

John Brown, Esq. Master Cutler of Sheffield

Professor Donaldson

Frederick Elkington, Esq.

C. Drury E. Fortnum, Esq.

George Godwin, Esq.

Solomon A. Hart, Esq. R.A.

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Baron Marochetti, A.R.A.

Wright Mellor, Esq.

Philip W. S. Miles, Esq.

William Scholefield, Esq. M.P.

Alfred Seymour, Esq. M.P.

William Tite, Esq. M.P.

R. H. Soden Smith, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATI.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

1A ART UNION OF LONDON (see Class 6)

Bronze statuettes

Statuettes de bronze

Bronze-Statuette

Statuette di bronzo

1B FOWKE, THOMAS, Park Lodge, Percy Cross, Fulham, London

Bronze statuettes, &c.

Statuettes de bronze, etc.

Bronze-Statuetten u. s. w.

Statuette di bronzo

* All these cups were won by 'Ely.'

Tous ces prix ont été remportés par 'Ely.'

Alle diese Preise wurden von 'Ely' gewonnen.

Tutti questi premi si sono guadagnati da 'Ely.'

- 1 FRANCHI, G., & SON, 15 Myddelton-street, Clerkenwell, London

Electrotype bronze doors for the South Kensington Museum, from the general design left by Godfrey Sykes, and executed after his death by his assistants John Gamble and Reuben Townroe; other electrotypes

Portes de bronze destinées au Musée de South Kensington, à Londres, produites par la galvanoplastie d'après le projet de feu Godfrey Sykes, et exécutées après sa mort par ses collaborateurs John Gamble et Reuben Townroe; reproductions galvanoplastiques

Galvanoplastische Thüren für das Museum in South-Kensington nach den allgemeinen Entwürfen, welche von Godfrey Sykes entworfen und nach seinem Tode von seinen Assistenten John Gamble und Reuben Townroe ausgeführt worden; andere galvanoplastische Gegenstände

Porte di bronzo a galvano-plastica pel Museo di South Kensington, dietro il progetto di fu Godfrey Sykes, eseguite dopo la sua morte dai suoi assistenti John Gamble e Reuben Townroe; ed altri oggetti a galvano-plastica

- 2 HOOLE, HENRY, & Co., Green-lane, Sheffield
Case for hot-water pipes, after the designs of Mr. A. Stevens, made for the South Kensington Museum

Cage de calorifère à circulation d'eau chaude, fabriquée pour le Musée de South Kensington, d'après les dessins de Mr. A. Stevens

Gehäuse für warme Wasserröhren, nach einem Entwurf des Herrn A. Stevens, gemacht für das Museum in South Kensington

Cassa pei condotti a acqua calda eseguito pel Museo di South Kensington dietro il progetto del Sig. A. Stevens

- 3 SKIDMORE'S ART MANUFACTURES & CONSTRUCTIVE IRON Co., Coventry

Portion of canopy for Memorial to the Prince Consort

Partie de la voûte du Monument élevé à la mémoire du Prince-Époux

Theil des Baldachins für das Denkmal des Prinzgemahls

Parte della volta del monumento eretto alla memoria del Principe Consorte

CLASS XXIII.

Clocks and Watches.

Horlogerie.

Stutz-, Wand- und Taschenuhren.

Orologi ed Oriuoli.

(For detailed classification, see p. xvii.)

(*Voir le système de classification*, p. xvii.)

(Für detaillierte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione*, p. xvii.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.

Lord Stanley, M.P.

Lord Wrottesley

Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.

Right Hon. W. E. Gladstone, M.P.

Sir C. Wentworth Dilke, Bart. M.P.

Edgar A. Bowring, Esq. C.B.

Right Hon. W. L. Joynt, Lord Mayor of Dublin

John Brown, Esq. Master Cutler of Sheffield

Mr. Alderman Carter

Charles Frodsham, Esq.

William Hawes, Esq.

R. Haswell, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

E. D. Johnson, Esq.

Admiral Manners

Mellor Wright, Esq.

Philip W. S. Miles, Esq.

J. Moore, Esq.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

R. H. Soden Smith, Esq. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

C. Frodsham, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ADAMS, F. B., & SONS, 21 St. John's-square, Clerkenwell, London

Watches, &c.

Montres, etc.

Taschenuhren etc.

Oriuoli, ecc.

- 3 *BENNETT, JOHN, F.R.A.S., 65 Cheapside, London

Chronometers, clocks, watches, and regulators

Chronomètres, pendules, montres et régulateurs

Chronometer, Stutz-, Wand- und Taschenuhren, Schneckenfedern

Cronometri, orologi, orioli, e regolatori

- 4 BENSON, JAMES WM., 58 Ludgate-hill, and 25 Old Bond-street, London
Clocks, watches, chains, &c. (also in Architectural Court)
Pendules, montres, chaînes, etc. (voir la Salle d'Architecture)
Stutz-, Wand- und Taschenuhren, Uhrketten etc. (siehe architectonische Abtheilung)
Orologi, orioli, catene, ecc. (vedasi anche Compartimento d'Architettura)
- 5 BLACKIE, GEORGE, 24 Amwell-street, Clerkenwell, London
Chronometers, watches, balances, and regulators
Chronomètres, montres, balances et régulateurs
Chronometer, Taschenuhren, Unruhen und Regulatoren
Cronometri, orioli, pendole, e regolatori
- 6 *BRIGHT, HENRY, 2 Union-parade, Leamington
Clocks kept in motion by electricity, and requiring no acid battery
Horloges électriques sans batteries
Electrische Uhren, ohne Säurebatterien
Orologi a movimento elettrico, senza batteria con acidi
- 7 CLAXTON, ROBERT, 65 Myddelton-street, Clerkenwell, London
Marine chronometer jewellerys
Pierres fines pour chronomètres marines
Chronometer für Schiffe
Pietre preziose per cronometri navali
- 9 DENT, M. F., & Co., 33 Cockspur-street, London (Appendix, pp. 102-7)
Chronometers, watches, clocks
Chronomètres, montres, pendules
Chronometer, Taschen-, Stutz- und Wanduhren
Cronometri, orioli, orologi
- 10 FRODSHAM, CHARLES, 84 Strand, London (Appendix, p. 108)
Chronometers, astronomical clocks, watches, compensation pendulums
Chronomètres, pendules astronomiques, montres, balanciers compensateurs
Chronometer, astronomische und andere Uhren, Compensations-Pendulums
Cronometri, orologi astronomici, orioli, pendole a compensazione
- 12 *GUILLET, JULES JEAN LOUIS, 11 Wilming-ton-square, London
Watches
Montres
Taschenuhren
Orioli
- 12A HANCOCK, F. C., & Co. (see Class 21)
Ornamental clocks
Pendules d'ornement
Stutzuhren
Orologi d'ornamento
- 13 HOLDSWORTH, SAMUEL, 54 Spencer-street, Clerkenwell, London (Appendix, p. 108)
Chronometer and watch jewels and materials
Pierres fines et mouvements de chronomètres et de montres
Steine und Materialien für Chronometer und Taschenuhren
Pietre preziose e materiali per cronometri e orioli
- 14 HOWELL, JAMES, & Co. (see Class 21, No. 14)
Clocks and travelling timepieces
Horloges et pendules de voyage
Stutz- und Wanduhren und Reiseuhr
Orologi e pendoli da viaggio
- 15 JOHANNSEN, HANS CHRISTIAN, 33 Arling-ton-square, New North-road, London
Chronometers
Chronomètres
Chronometer
Cronometri
- 16 *JONES, JOHN, 338 Strand, London
Watches and clocks
Montres et pendules
Taschen- und Wanduhren
Orioli e orologi
- 17 KULLBERG, VICTOR, 12 Cloudeley-terrace, Islington, London (Appendix, p. 109)
Chronometers and watches with improvements therein
Chronomètres et montres avec mouvements perfectionnés
Verbesserte Chronometer und Taschenuhren
Cronometri e orioli con perfezionamenti
- 18 MERCER, THOS., 5 King Edward-terrace, Liverpool-road, London
Marine and other chronometers
Chronomètres marines, etc.
Schiffs- und andere Chronometer
Cronometri navali, ed altri
- 20 NICOLE & CAPT, 14 Soho-square, London
Keyless watches, and chronograph
Montres se remontant sans clé, et chronographe
Taschenuhren ohne Schlüssel, und Chronograph
Orioli senza chiave, e cronografo
- 21 ORAM, G. J., 19 Wilmington-sq., London
Watches and chronometers
Montres et chronomètres
Taschenuhren und Chronometer
Orioli e cronometri

22 PARKINSON & FRODSHAM, 4 Change-alley, Cornhill, London

Regulators, quarter clocks, watches, and chronometers

Régulateurs, pendule sonnant les quarts, montres et chronomètres

Regulatoren, Schlaguhren, Taschenuhren und Chronometer

Regolatori, orologi coi quarti d' ora, oriuli e cronometri

23 POOLE, JOHN, 57 Fenchurch-street, London

Chronometers and watches

Chronomètres et montres

Chronometer und Taschenuhren

Cronometri e oriuli

25 SEWILL, JOHN, 61 South Castle-street, Liverpool

Chronometers and watches

Chronomètres et montres

Chronometer und Taschenuhren

Cronometri e oriuli

26 VIVIER, OCTAVE, 21 Sekforde-st., Clerkenwell, London

Chronometers, watches, chronographs, &c.

Chronomètres, montres, chronographes, etc.

Chronometer, Taschenuhren, Chronographen etc.

Cronometri, oriuli, cronografi, ecc.

27 WALKER, JOHN, 68 Cornhill, and 230 Regent-street, London

Chronometers, watches, clocks

Chronomètres, montres, pendules

Chronometer, Taschen-, Stutz- und Wanduhren

Cronometri, oriuli, orologi

28 WEBSTER, RICHARD, 74 Cornhill, London

Chronometers, watches, clocks

Chronomètres, montres, pendules

Chronometer, Taschen-, Stutz- und Wanduhren

Cronometri, oriuli, orologi

29 WHITE, EDWARD, 20 Cockspur-st., London

Clocks, chronometers, watches

Pendules, chronomètres, montres

Stutz- und Wanduhren, Chronometer, Taschenuhren

Orologi, cronometri, oriuli

CLASS XXIV.

Apparatus and Processes for Heating and Lighting.

Appareils et Procédés de Chauffage et d'Éclairage.

Apparate und Verfahren zum Heizen und Erleuchten.

Apparati e Processi di Calefazione e d'Illuminazione.

(For detailed classification, see p. xiv.)

(*Voir le système de classification, p. xiv.*)

(Für detaillirte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione p. xiv.*)

COMMITTEE—COMITÉ. AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.

Lord Stanley, M.P.

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Right Hon. W. E. Gladstone, M.P.

Sir C. Wentworth Dilke, Bart. M.P.

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T. Twining, Esq.

Captain Pelly, R.E.

Captain Donnelly, R.E.

Captain Festing, R.E.

Captain Webber, R.E. *Secretary.*

JUROR—MEMBRE DU JURY.

PREISRICHTER—GIURATO.

Professor J. Tyndall, LL.D. F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Rear Admiral Ryder, C.B. R.N.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 ADAMS, W. S., & SON, 41 Marshall-street
Cooking apparatus, Captain Warren's principle (see Testing House)

Cuisine, système du Capitaine Warren (voir le Bâtiment des Essais)

Kochapparat, Capitain Warren's Princip

Apparato culinario, sistema del Capitano Warren

- 2 ADMIRALTY, Whitehall, London (Appendix, p. 261)
Ships' stoves and cooking apparatus, supplied by various manufacturers
Poêles et cuisines de navires, fournis par divers fabricants
Schiffsöfen und Kochherde, geliefert von verschiedenen Fabricanten
Stufe e apparati culinari forniti da vari fabbricanti
- 3 *BACKHOUSE, NOAH, St. Matthew's-street, Ipswich
Ships' cooking stoves and kitchen ranges
Cuisines de navires et grilles de cuisine
Schiffs-Kochöfen und Küchenroste
Stufe-cucine da nave e focolari da cucina
- 4 BARTON, WILLIAM, 24 Bargate, Boston
Cooking range, with steam and bath apparatus (see Testing House)
Grille de cuisine, avec appareil pour chauffer un bain, etc.
Kochherd, mit Dampf- und Badeapparat
Focolare, con apparato per vapore e bagno
- 5 BARWELL & Co., Eagle Foundry, Northampton
Register stoves, &c.
Poêles à régulateur, etc.
Öfen mit Register etc.
Stufe a registro, ecc.
- 7 BENHAM & SONS, 19 Wigmore-street, London (see Testing House)
Stoves, fenders; ventilating globe lights
Grilles, gardes-feu; globes ventilateurs pour l'éclairage au gaz
Öfen, Feuergatter; ventilirende Lichtschirme
Stufe, parafoochi, lumi a globi ventilatori
- 8 BEST & HOBSON, 100 Charlotte-street, Birmingham
Chandeliers, gas fittings, &c.
Lustres, becs à gaz, etc.
Kronleuchter, Gasgeräthschaften etc.
Lampade e fornimenti per gas
- 8A BLEWS, W., & SONS, Birmingham (see Class 40)
Chandeliers and gas-fittings
Lustres et becs à gaz
Kronleuchter und Gaseinrichtungen
Lampade e fornimenti per gas
- 9 BOWSER, W., & SON, 6 Adelphi-chambers, John-street, Strand, London, and at Glasgow
Cooking apparatus used in H.M. Navy
Cuisine en usage dans la Marine Royale
Kochherd gebraucht in der königlichen Flotte
Apparato culinario usato dalla Marina Reale
- 10 BROWN & GREEN, George-street, Luton (see Testing House)
Kitchen ranges and portable cooking stoves
Grilles de cuisine et appareils culinaires portatifs
Kochherd und transportirbare Kochöfen
Focolari da cucina, e Stufe-cucine portatili
- 11 BRYANT & MAY, Fairfield Works, Bow
Various kinds of matches (see Testing House)
Alumettes diverses
Verschiedene Arten von Streichhölzern
Varie specie di fiammiferi
- 12 *BUCKLEY, Major, Barracks, Chatham
Terra-cotta stove (see Testing House)
Calorifère de terra cotta
Ofen von Terra-Cotta
Stufa in terra cotta
- 12A CHADBURN, C. H., & SON (see Class 12)
Magic lantern (see Testing House)
Lanterne magique (voir le Bâtiment des Essais)
Zauberlaterne (siehe Proberhaus)
Lanterna magica (vedati Casa degli Esperimenti)
- 13 CHESTER, HARRY, 63 Rutland-gate
Economical cottage grate; day and night school grate (see Testing House)
Cheminée d'habitation rurale, et cheminée d'école économisant le combustible (voir le Bâtiment des Essais)
Sparherd für Hütten; Tag und Nacht brennender Schulofen (siehe Proberhaus)
Grata economica per casetta, grata da scuola per giorno e notte (vedasi Casa degli Esperimenti)
- 14 CLARK, F. A., Phoenix Lead Mills, Hammer-smith, London
Composition gas tubes
Tuyaux à gaz
Gasröhren aus Metall-Legirung
Tubi del gas di composizione
- 15 CLIFF & SON, Wortley, near Leeds
Grate, with beehive back, with front by Messrs. Longdon of Sheffield (see Testing House)
Cheminée à dos de ruche, la grille fabriquée par MM. Longdon, de Sheffield (voir le Bâtiment des Essais)
Herd mit bienenstockartiger Rückwand (siehe Proberhaus)
Grata coll' indietro ad alveare e il davanti fatto dai Sigri. Longdon, di Sheffield (vedasi Casa degli Esperimenti)
- 16 CRICHLEY, HENRY, & Co., Sheffield Stove Grate Works, Birmingham
Hall stands, tables, stove grates, fenders, &c.
Porte-parapluies pour vestibules, tables, grilles de poêles, gardes-feu, etc.
Hut- und Schirmstand für die Vorhalle, Tische, Roste für Öfen, Feuergatter etc.
Appiccarobe da vestibulo, tavole, grate da Stufe, parafoochi, ecc.
- 17 DEFRIES & SONS, 147 Houndsditch, London
Patent crystal illumination device. Patent lamp for mineral oil (see Testing House)
Devise en cristal brevetée pour les illuminations. Lampe brevetée pour brûler l'huile de schiste (voir le Bâtiment des Essais)
Patentirter Entwurf zur Illumination mit Crystallglas. Patentirte Lampe für Steinöl
Insegna in cristallo per illuminazione (patentata)

- 18 DUCKHAM, H. A. F., 10 Oxney Villas, St. John's Road, Upper Holloway, London
Gas meters and regulators with testing appliances (see Testing House)
Compteurs à gaz, et régulateurs avec appareils d'essai (voir le Bâtiment des Essais)
Gasmesser und Regulatoren, mit Probiervorrichtung (siehe Proberhaus)
Misuratori e regolatori di gas, con apparati per prove (vedasi Casa degli Esperimenti)
- 19 FIELD, J. C. & J., Lambeth Marsh (Appendix, p. 134)
Candles (see Testing House)
Chandelles (voir le Bâtiment des Essais)
Lichter (siehe Proberhaus)
Candele (vedasi Casa degli Esperimenti)
- 20 FORREST, MESSRS., Gas Fitters, 5 Neville's-court, London
Apparatus for lighting the gas in the South Kensington Museum, invented by the late Captain Fowke, R.E.; apparatus for lighting fires without paper or wood, invented by Captain Donnelly, R.E. (see Testing House)
Appareil servant à allumer le gaz dans le Musée de South Kensington, à Londres, inventé par feu le Capitaine Fowke; appareil pour allumer le feu sans bois ni papier, inventé par le Capitaine Donnelly, R.E. (voir le Bâtiment des Essais)
Gasbeleuchtungs-Apparat für das Museum in South Kensington, Erfindung des verstorbenen Capitän Fowke; Apparat zum Feueranzünden ohne Papier oder Holz, Erfindung des Capitän Donnelly (siehe Proberhaus)
Apparato per accendere il gas nel Museo S. K., inventato dal fu Capitano Fowke (Genio Militare); apparato per accendere il fuoco senza carta nè legna, inventato dal Capitano Donnelly (Genio Militare) (vedasi Casa degli Esperimenti)
- 21 FREEMAN, THOMAS, 8 Vine-street Piccadilly, London
Crystal glass illuminations (one specimen made for the South Kensington Museum)
Appareils d'illumination de cristal (dont un spécimen a été fabriqué pour le Musée de South Kensington)
Illumination mit Crystallglas (ein Exemplar, für das Museum in South Kensington gemacht)
Illuminazione di cristallo (onde un modello è stato), fabricato pel Museo South Kensington
- 22 GARDINER, H. & J., 453 Strand, London
Chandeliers, Museum, South Kensington
Lustres
Armleuchter
Lampade
- 23 GLOVER, GEORGE, & Co., Ranelagh-road London (see Testing House)
Standard gasometers, patent dry gas meters, photometers, governors, and other apparatus
Gazomètres modèles, compteurs à gaz brevetés, photomètres, régulateurs et autres appareils
- Standard Gasmesser, patentirte trockene Gasmesser, Photometer, Regulatoren und andere Apparate
Gasometri tipo, misuratori di gas a secco patentati, fotometri, regolatori, ed altri apparati
- 25 GREEN, EDWARD, & SON, Calder Vale, Wakefield
Green's patent fuel economiser, and patent fire grate
Appareil breveté de Green pour économiser le combustible; grille brevetée
Green's patentirter Brennmaterial-Ersparer und patentirter Rost
Risparmia-combustibile patentato di Green, e grata da fuoco patentata
- 26 HER MAJESTY'S SECRETARY OF STATE FOR WAR, War Office, London (Appendix, p. 289)
Grate for soldiers' rooms, married soldiers' range, drying closet (see Testing House)
Cheminée pour les logements militaires, grille de cuisine pour les soldats mariés, étuves pour sécher le linge
Herde für Soldatenzimmer, Herde für verheirathete Soldaten, Trockenkammer
Grata per camerate militari, focolare per soldati ammogliati, gabinetto per asciugare
- 27 JEAKES & Co., 51 Great Russell-street, Bloomsbury, London
Cooking ranges and stoves, as arranged for the South Kensington Museum
Grilles et poêles de cuisine, en usage au Musée de South Kensington
Kochherde und Oefen arrangirt für das Museum in South Kensington
Focolari e stufe da cucina, disposte come pel Museo South Kensington
- 28 JOHNSTON, FRASER, & Co., 66 Gordon-street, Glasgow
Lobby lanterns, gas stoves, translucent lamp, &c.
Lampes pour antichambres, poêles à gaz, lampe diaphane, etc.
Lampen für die Halle, Gasöfen, durchscheinende Lampen etc.
Lampioni per vestibolo, stufe a gas, lumi traslucanti, ecc.
- 28A KENSETT, JAMES, Beaumont-sur-Oise, France
Patent candlesticks
Chandeliers brevetés
Patentirte Leuchter
Lampade patentate
- 29 KING & BROWN, 27 Edward's-street, Portman-square, London (see Testing House)
Patent Brighton lamp
Lampe brevetée, dite de Brighton
Patentirte Brightoner Lampe
Lume detto di Brighton (patentato)
- 30 LEONI, SIGISMUND (see Class 53)

- 32 LONDON WARMING AND VENTILATING COMPANY (Limited),** W. Woodcock, Secretary, 12 Abingdon-street, London (see Testing House)
Warming apparatus (Gurney's patent), &c.
Calorifères (brevet Gurney), etc.
Erwärmungs-Apparat (Gurney's Patent) etc.
Calefattori (patente Gurney), ecc.
- 33 LEAMINGTON KITCHEN RANGE COMPANY**
A cottage range; improved kitchen ranges
Grille de cuisine pour habitations rurales; grilles de cuisine perfectionnées
Ein Herd für eine Hütte; verbesserte Küchenherde
Focolare da cassetta; oculari da cucina perfezionati
- 34 *MULLINER, HENRY,** Chapel-street, Leamington (see Testing House)
Improved kitchen cooking ranges
Grilles de cuisine perfectionnées
Verbesserte Kochherde
Focolari da cucina
- 35 MUSGRAVE BROTHERS,** Ann-street, Belfast (see Testing House), (Appendix, pp. 304-5)
Slow combustion stoves (patent)
Calorifères à combustion lente (brevetés)
Langsam brennende Oefen (patent)
Stufe a combustione lenta (patentate)
- 36 MCSHERRY, M.,** Limerick
Kitchen range
Grille de cuisine
Küchenherd
Focolari da cucina
- 38 PERKINS, LOFTUS,** 6 Seaford-street, London
Military portable oven (see Testing House)
Four portatif pour l'usage de l'armée
Tragbare Militäröfen
Forno militare portatile
- 39 PHILLIPS, THOMAS,** 55 Skinner-st., London (see Testing House)
Apparatus for roasting and heating by gas
Appareil à gaz pour le rôtissage des viandes et pour le chauffage
Gasapparat zum Rösten und Heizen
Apparato per arrostitore e riscaldare a gas
- 40 PHILLE, CHARLES JAMES,** 20 Caroline-street, Birmingham
Lamps—*Lampes*
Lampen—*Lumi*
- 41 RADCLYFFE & Co.,** Old Town Foundry, Leamington
Prize kitcheners
Fourneaux et ustensiles de cuisine
Preis Kochherde
Cucine premiate
- 42 ROWATT, THOMAS, & SON,** Lothian-road, Edinburgh
Paraffine lamps and mineral oil
Lampes pour brûler la paraffine. Huile de schiste
Paraffinlampe und Steinöl
Lumi a parafina e a olio minerale
- 43 *RUSSELL, GEORGE F.,** 16 Newton-street
Vegetable gasometer, &c., for domestic purposes (see Testing House)
Appareil pour la production du gaz extrait de matières végétales, etc., pour la consommation domestique
Vegetabilischer Gasometer etc. für häusliche Zwecke
Gasometro vegetabile, ecc., per uso domestici
- 44 SCHOLL, JOHN,** 41 Berwick-street, Soho, London (see Testing House)
Patent platinum gas perfectors
Bees à gaz perfectionnés de platine (brevetés)
Patentirter Platin-Gasbrenner
Perfezionatori del gas in platino (patentati)
- 45 SOLOMON, JOSEPH,** 22 Red Lion-square, London (see Testing House)
Lamps for burning magnesium metal
Lampes à brûler le magnésium
Lampen zum Brennen von Magnesium
Lumi a magnesio
- 46 STEEL & GARLAND,** Wharnccliffe Works, Sheffield
Stove-grates, fenders, &c.
Grilles de poêles, gardes-feu, etc.
Roste für Oefen, Feurrätter etc.
Grate da stufe, parafuochi
- 47 STRODE & Co.,** Gas Fitters, 16 St. Martin's-le-Grand, London (see Testing House, and also Architectural Court)
Sun burner
Globe pour l'éclairage au gaz
Sonnengleicher Gasbrenner
Becco da gas detto solare
- 48 SUGG, WILLIAM,** Vincent-street, Westminster (see Testing House)
Photometers, street lamp governor, patent valve, pressure gauges, mechanical ventilator
Photomètres, appareil pour régler l'éclairage de la voie publique, soupape brevetée, manomètres, ventilateur mécanique
Photometer, Regulator für Strassenlampen, patentirtes Ventil, Manometer, mechanische Ventilatoren
Fotometri, regolatori da lampioni di strade, valvola patentata, staze di pressione, ventilatore meccanico
- 49 SULLIVAN, JOHN,** St. Helier, Jersey
Patent lamps, and corkless stopper bottles
Lampes brevetées, bouteilles bouchées par un ressort sans liège
Patentirte Lampen, Flaschen, die sich ohne Stopfer verschliessen
Lumi patentati, e turaccioli da bottiglie senza sughero
- 50 THE GENERAL IRON FOUNDRY COMPANY,** 43 Upper Thames-street, London (see Testing House)
Stoves—*Calorifères*
Oefen—*Stufe*

51 TRINITY HOUSE, CORPORATION OF THE, London (Appendix, p. 285)
Lamps of various kinds, supplied by different manufacturers

Lampes diverses fournies par plusieurs fabricants

Lampen verschiedener Art, geliefert von verschiedenen Fabrikanten

Lumi di varie specie forniti da vari fabbricanti

53 *TYERMAN, FREDERICK, 38 Gracechurch-st., London

Standard table lamp, with Tyerman's patent economiser for Argand burners

Lampe modèle, munie d'un appareil économique (brevet Tyerman) pour les brûleurs Argand

Anerkannnte Tischlampe mit Tyerman's patentirtem Ersparer für Argandsche Lampen

Lume da tavola tipo col risparmiatore di Tyerman patentato per i becchi di Argand

54 WARRINER, G., Ventilating Furnace Bar Company, 9 Mincing-lane, London (see Testing House)

Furnace with ash-pit, showing bars

Fourneau avec cendrier et barres visibles

Schachtofen mit Aschenloch, und sichtbarem Stangenrost

Fornace con cinerario, con barre visibili

55 WAVISH BROTHERS, Torpoint, Cornwall (see Testing House)

Lamps for maritime and other purposes

Lampes pour l'usage de la marine, etc.

Lampen für Schiffe und andere Zwecke

Lanterne per usi navali ed altri

56 WELCH, E. J. C., Lancaster-house, Harrow (see Testing House)

Gas carburetted apparatus

Appareil à augmenter le pouvoir éclairant du gaz

Gas-Verkohlungs-Apparat

Apparato per carburare il gas

57 *WILKIE & SOAMES, Thames Soap Works, East Greenwich

Stearaffine candles. Greenwich sperm candles

Bougies de stéaraffine. Bougies de sperm, dites de Greenwich

Stearaffin-Lichter, Greenwicher Wallrath-Lichter

Candele di stearaffina. Candele spermaceti di Greenwich

58 WINFIELD, R. W., & Co., Cambridge-street, Birmingham

Chandeliers and gas fittings

Lustres, becs et accessoires pour l'éclairage au gaz

Armleuchter und Gasausrüstung

Lampade e fornimenti da gas

59 WRAY, G. O., Downing College, Cambridge

Candles and candle holder (see Testing House)
Chandelles et porte-chandelle (voir le Bâtiment des Essais)

Lichter und Lichtknechte (siehe Proberhaus)

Candele e portacandela (vedasi casa degli Esperimenti)

60 YOUNG BROTHERS, 34 Queen-street, Cheap-side, London (see Testing House)

Smoke-preventing fire-places; lamps, gas burners

Grilles de foyer fumivores; lampes, becs à gaz

Rauch verhindernde Feuerherde; Lampen, Gasbrenner

Focolari parafumo; lumi, beccchi da gas

61 YOUNG, JAMES, Bathgate, Edinburgh (see Testing House)

Lamps to burn paraffine oil; paraffine candles

Lampes pour brûler l'huile de paraffine, chandelles de paraffine

Paraffinlampen, Paraffinlichter

Lumi a olio di parafina, candele di parafina

CLASS XXV.

Perfumery.

Parfumerie.

Parfümerien.

Profumerie.

(For detailed classification, see p. xvii.)

(*Voir le système de classification, p. xvii.*)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione, p. xvii.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

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Sir C. Wentworth Dilke, Bart. M.P.

Sir H. Drummond Wolff, K.C.M.G.

Edgar A. Bowring, Esq. C.B.

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John Brown, Esq. Master Cutler of Sheffield

William Hawes, Esq.

Michael D. Hollins, Esq.

A. J. B. Beresford Hope, Esq. M.P.

Mellor Wright, Esq.

Philip W. S. Miles, Esq.

W. Olding, Esq. M.D.

S. Piesse, Esq. Ph.D.

Eugene Rimmel, Esq.

William Scholefield, Esq. M.P.

William Tite, Esq. M.P.

C. A. Pierce, Esq. *Secretary.*

JUROR—MEMBRE DU JURY PREISRICHTER—GIURATO.

Dr. Odling

1 ATKINSON, JAMES & EDWARD, 24 Old Bond-street, London

Perfumery, soaps, &c.

Parfums, savons, etc.

Riechwasser, Seifen etc.

Profumerie, saponi, ecc.

- 2 BENBOW & SON**, 12 Little Britain, London
Fancy soaps, perfumes
Savons de toilette, parfums
Wohlriechende Seifen und Parfümerien
Saponi di lusso, profumi
- 3 CLEAVER, F. S., & SON**, 32 Red Lion-street, Holborn, London
Fancy soaps, perfumes
Savons de toilette, parfums
Wohlriechende Seifen und Parfümerien
Saponi di lusso, e profumi
- 4 GIBBS, DAVID & WILLIAM**, 76 Milton-street, London, E.C.
Toilet soaps
Savons de toilette
Toiletten-Seifen
Saponi da toeletta
- 5 LEWIS, JAMES**, 6 Bartlett's-buildings, Holborn, London
Soaps, perfumes, pomades
Savons, parfums, pommades
Seifen, Parfümerien, Pomaden
Saponi, profumi, pomate
- 6 PEARs, A. & F.**, 91 Great Russell-st., London
Transparent soap
Savons transparents
Durchsichtige Seife
Sapone trasparente
- 7 PERKS, SAMUEL**, Hitchin, Herts
Essential oil of lavender, &c.
Huile essentielle de lavande, etc.
Lavendelöl etc.
Olio essenziale di lavanda
- 8 PIESSE & LUBIN**, 2 New Bond-street, London
Perfumery
Parfums
Parfümerien
Profumerie
- 9 PRICE, NAPOLEON, & Co.**, 27 Old Bond-street, London
Perfumery and fancy soap
Parfums et savons de toilette
Parfümerien und wohlriechende Seifen
Profumerie e saponi di lusso
- 10 RANSOM, WILLIAM**, Hitchin, Herts
Essential oils and lavender perfumery
Huiles essentielles et essence de lavande
Etherische Oele und Lavendel-Parfümerie
Oli essenziale e profumerie di lavanda
- 11 REMINGTON, ARTHUR**, 21 David-place, St. Helier's, Jersey
Eau de Cologne, lavender water, toilet vinegar, &c.
Eau de Cologne, eau de lavande, vinaigre de toilette, etc.
Kölnisches Wasser, Lavendelwasser wohlriechende Essige etc.
Acqua di Colonia, di lavanda, aceto da toeletta, ecc.
- 12 RIMMEL, EUGENE**, 96 Strand, London
Perfumery and toilet soaps, perfume fountains, &c.
Parfums et savons de toilette, fontaines parfumées, etc.
Parfümerien, Toiletten-Seifen, wohlriechende Springbrunnen etc.
Profumerie e saponi da toeletta, fontane aromatiche, ecc.
- 13 WARRICK BROTHERS**, 3 Garlick-hill, London
Essential oils, &c.
Huiles essentielles, etc.
Etherische Oele etc.
Oli essenziali, ecc.
- 14 WHARRY, JAMES**, Market-pl., Chippenham
English oil of lavender, lavender water, pomatus, &c.
Huile anglaise de lavande, eau de lavande, pommades, etc.
Englisches Lavendelöl, Lavendelwasser, Pomaden etc.
Olio di lavanda Inglese, acqua di lavanda, pomate, ecc.
- 15 YARDLEY & Co.**, 7 Vine-street, Bloomsbury, London
Fancy soaps, lavender water, &c.
Savons de toilette, eau de lavande, etc.
Wohlriechende Seifen, Lavendelwasser etc.
Saponi di lusso, acqua di lavanda, ecc.

CLASS XXVI.

Leather-work, Fancy Articles, and
Basket-work

*Objets de Maroquinerie, de Tabletterie et
de Vannerie.*

Lederarbeit, Modeartikel und Körbe
*Lavori in Pelle, Oggetti di Lusso, e
Lavori di Vimini.*

(For detailed classification, see p. xvii.)
(*Voir le système de classification, p. xvii.*)
(Für detaillirte Classification, siehe Seite xvii.)
(*Vedasi il sistema di classificazione, p. xvii.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.
Lord Stanley, M.P.
Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.
Right Hon. W. E. Gladstone, M.P.
Sir C. Wentworth Dilke, Bart. M.P.
Sir Thomas Phillips
Sir H. Drummond Wolff, K.C.M.G.
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Samuel H. Hicks, Esq.
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Mellor Wright, Esq.
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William Scholefield, Esq. M.P.
William Tite, Esq. M.P.
C. A. Pierce, Esq. Secretary.

JURORS—MEMBRE DU JURY
PREISRICHTER—GIURATO.

J. M. Stanley, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.
F. West, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 BETJEMANN, GEORGE, & SONS, 36 Penton-
ville-road, London

Desks and dressing-cases, fancy furniture
*Pupitres et nécessaires de toilette, petits meubles
de fantaisie*

Schreib- und Toiletten-Kästchen, kleine
Schmucksachen

Leggii, cassette da toaletta, mobilia di lusso

2 BIGNELL, JOHN, 13 Piccadilly, London

Purses, pocket-books, writing-cases, despatch-
boxes, &c.

*Bourses, portefeuilles, papeteries, nécessaires de
voyage, etc.*

Geldbörsen, Taschenbücher, Papeterien De-
peschenbüchsen etc.

Borse, taccuini, scrivanie, segreteria

3 CHATWIN, HENRY, 30 Darwin-street, Bir-
mingham

Pearl, ivory, and tortoise-shell card-cases,
needle-cases, dressing-cases, albums, &c.

*Étuis à cartes-de-visite, et à aiguilles, en écaïlle,
nacre et ivoire; nécessaires de toilette, albums
Visitenkartenetuis in Perlen, Elfebeine
oder Schildpatt, Nadelbüchsen, Toiletten-
kästchen, Albums etc.*

*Buste da carte da visita, agorai, cassette da
toeletta, album, ecc., in madreperla, in avorio
e in tartaruga.*

4 CLARKE, JOHN ROBERT, 26 Trafalgar-street,
Walworth, London

Inlaid and mosaic Tunbridge ware
*Objets incrustés et de mosaïque, dits de Tun-
bridge*

Eingelegte und mosaische Gegenstände (Tun-
bridge-Waare)

*Lavori all' uso di Tunbridge a intarsio e a
mosaico*

6 HAMILTON & Co., 10 Greek-street, Soho,
London

Painters' brushes—*Brosses à l'usage des peintres
Lackirerpinsel—Pennelli di pittori*

7 HOWELL, JAMES, & Co. (see Class 21,
No. 12)

Dressing-cases, &c.
Nécessaires de toilette, etc.

Toilettenkästchen etc.

Cassette da toeletta, ecc.

8 JENNER & KNEWSTUB, 33 St. James's-street,
London

Dressing-cases, travelling-bags, despatch-
boxes, writing-cases, &c.

*Nécessaires de toilette et de voyage, coffrets,
papeteries, etc.*

Toilettenkästchen, Reisetaschen, Depeschen-
büchsen, Schreibmaterialienbehälter etc.

*Cassette da toeletta, e sacchi da viaggio, segre-
terie, scrivanie, ecc.*

9 JOHNSON & ROWE, 17 Warwick-sq., London

Pocket-books, purses, writing-cases, despatch-
boxes, fancy leather goods

*Portefeuilles, portemonnaies, papeteries, néces-
saires de voyage et objets de maroquinerie*

Taschenbücher, Börsen, Schreibmaterialien-
behälter Depeschen-Kästchen, geschmack-
volle Lederarbeit

*Taccuini, borse, scrivanie, segreteria, lavori in
pelle di lusso*

10 JOSEPH, S., & SON, 2 Great St. Thomas
Apostle, London

Dressing-cases, fancy cabinet and leather
goods

*Nécessaires de toilette, coffret et objets de
maroquinerie*

Toilettenkästchen, Nippsachen und Leder-
artikel

*Cassette da toeletta, stipo di lusso, e lavori in
pelle*

11 LEUCHARS, WILLIAM, 38 & 39 Piccadilly,
London

Dressing-cases, travelling-bags, &c.

Nécessaires de toilette, de voyage, etc.

Toilettenkästchen, Reisetaschen etc.

Cassette da toeletta, sacchi da viaggio, ecc.

12 MOORAN, J., Villa-street, Birmingham
Inlayer's materials, &c.
Matériel du travail d'incrustation, etc.
Materialien für eingelegte Arbeit etc.
Materiali pell' intarsio, ecc.

13 SCHÄFER, P. & F., 6 Golden-square, London
Bags, dressing-cases, fancy leather goods
Sacs de voyage, nécessaires de toilette, objets de maroquinerie
Taschen, Toilettenkästchen, geschmackvolle Lederartikel
Sacchi, cassette da toilette, lavori di lusso in pelle

Carvings.
Sculptures.
Schnitzereien.
Intagli.

14 BAYLIS, W. H.
Architectural works in wood carving (see Architectural Court)
Ornements de bois sculpté pour l'architecture (voir la Salle d'Architecture)
Architectonische Arbeiten in Holz geschnitten (siehe architectonische Abtheilung)
Lavori architettonici in legno intagliato (vedasi Compartimento d'Architettura)

15 *COSSENS, EDWARD JOSEPH, 15 Little Queen-street, High Holborn, London
Two carved models, representing French and English basket-sellers
Deux figurines sculptées représentant des vendeuses de paniers
Zwei geschnitzte Modelle von Französischen und Englischen Korbverkäuferinnen
Due modelli in intaglio rappresentanti panierai Francese e Inglese

16 FARRANT, RICHARD ELISHA, 16 Queen's-row, Buckingham-gate, London
Turned and carved articles in wood, &c.
Objets divers de bois tourné et sculpté, etc.
Gedrehte und geschnitzte Holzgegenstände etc.
Articoli in legno, ecc., torniti e intagliati ecc

17 FENTUM, MARTIN, 85 New Bond-street, London
Ivory turnings and carvings
Objets divers tournés et sculptés en ivoire
Elfenbeinerne gedrehte und geschnitzte Artikel
Torniture e intagli in avorio

18 GOGGIN, JEREMIAH, 74 Grafton-street, Dublin
Bog-oak ornaments
Bijoux en chêne pétrifié d'Irlande
Ornamente von Braunkohle
Oramenti in quercia petrificata irlandese

20 KAY & REID, Glasgow (see Class 66)
Wood carving
Sculptures en bois
Holzschnitzerei
Intagli in legno

21 KENDALL, T. H., Warwick
Wood carving (see Architectural Court)
Sculptures en bois (voir la Salle d'Architecture)
Holzschnitzereien (siehe architectonische Abtheilung)
Intaglio in legno (vedasi Compartimento d'Architettura)

22 *PERRY, WILLIAM, 5, North Audley-street, London
Wood carvings (see Architectural Court)
Sculptures en bois (voir la Salle d'Architecture)
Holzschnitzereien (siehe architectonische Abtheilung)
Intaglio in legno (vedasi Compartimento d'Architettura)

23 ROGERS, GEORGE ALFRED, 33 Maddox-street, London
Carvings in wood—*Sculptures en bois*
Holzschnitzereien—*Intagli in legno*

25 *SCOTT, HENRY D., 24 High-street, Boston
Wood carvings
Sculptures en bois
Holzschnitzereien
Intaglio in legno

26 STAIGHT BROTHERS, 35 Charles-st., Hatton-garden, London
Ivory carvings and engravings, ivory combs, statuettes, busts, bas-reliefs
Sculptures et gravures sur ivoire, peignes, statuettes, bustes et bas-reliefs en ivoire
Schnitzereien und Gravirungen in Elfenbein, elfenbeinerne Kämmе, Statuetten, Büsten, Bas-reliefs
Intagli e incisioni in avorio, pettini, statuette, busti, bassorilievi in avorio

27 TANK, JAMES, 42 Lower Ormond Quay, Dublin
Bog-oak carving
Sculptures en chêne pétrifié d'Irlande
Schnitzereien in Braunkohle
Intagli in quercia petrificata irlandese

28 *WALLIS, T. W., Louth, Lincolnshire
Wood carvings (see Architectural Court)
Sculptures en bois (voir la Salle d'Architecture)
Holzschnitzereien (siehe architectonische Abtheilung)
Intagli in legno (vedasi Compartimento d'Architettura)

29 WARD, MARCUS, & Co. (see Class 6, and Appendix, pp. 50–51)
Leather work, albums, etc.
Ouvrages en cuir, albums, etc.
Lederarbeit, Stammbücher, etc.
Lavori in cuoio, album, ecc.

30 *WORMLEIGHTON, W., 19 St. James's-street, Birmingham
Wood carving (see Architectural Court)
Sculptures en bois (voir la Salle d'Architecture)
Holzschnitzerei (siehe architectonische Abtheilung)
Intaglio in legno (vedasi Compartimento d'Architettura)

- Combs, Brushes, Basket-Work.
Peignes, Objets de Brosserie, de Vannerie.
 Kämme, Bürsten, Korbwaaren.
Pettini, Spazzole, Lavori in Vimini.
- 31** BARNARD, CHARLES, & Co., 12 Three Colt-street, Old Ford North, Bow
 Horsehair flesh gloves, pads, and brushes
Gants et brosses de crin pour frictions
 Pferdehaarene Waschhandschuhe, Wülste, und Bürsten
Guanti, cuscinetti, e spazzole di crine
- 32** BEENY, EDWARD, JUN., Hooe, Sussex
 Sussex baskets
Paniers dits de 'Sussex'
 Sussex-Körbchen
Panieri detti 'Sussex'
- 33** CHILD, WILLIAM HENRY, 21 Providence-row, Finsbury, London
 Toilet and other brushes
Brosses de toilette, etc.
 Toiletten- und andere Bürsten
Spazzolette da toaletta ed altre
- 34** COATE & Co., 41 Lisle-street, Leicester-square, London
 Hair, tooth, and cloth brushes
Brosses à tête, à dents et à habits
 Haar-, Zahn- und Kleiderbürsten
Spazzole da capelli, da denti e da abiti
- 35** CONDRON, T. & R., 51 Bingfield-street, London, N.
 Toilet and Panstrepton brushes
Brosses de toilette et brosses dites 'panstrepton'
 Toiletten- und Panstrepton-Bürsten
Spazzole dette 'Panstrepton,' e da toaletta
- 36** GREENSLADE, E. A. & W., Thomas-street, Bristol
 Painters' and saddlers' brushes
Brosses à l'usage des peintres et des selliers
- Malerpinsel und Sattlerbürsten
Pennelli e spazzole da pittori e da sella
- 37** HEINRICH, JOHANN, 161 Camberwell-road, and 11 Princes-street, Soho, London
 Tortoise shell combs
Peignes d'écaulle
 Schildpatzkämme
Pettini di tartaruga
- 38** KENT, GEORGE BARTON, & Co., 11 Great Marlborough-street, London (Appendix, p. 110)
 Brushes
Brosses
 Bürsten
Spazzole
- 39** *KING, F. & J. L., 56 Wells-street, Oxford-street, London
 Bass brushes and brooms
Balais et brosses
 Binsenbürsten und Besen
Scopette e scope
- 40** MULLINER, H., Chapel-st., Leamington Spa
 Patent adjusting brushes for all uses
Brosses brevetées s'ajustant à divers usages
 Sich adjustirende Bürsten für alle Gegenstände (Patent)
Spazzole adattabili a tutti gli usi (patentate)
- 41** PEMBERTON, ABRAHAM, 15 Broad-street, Worcester
 Stable brushes
Brosses d'écurie
 Pferdebürsten
Scopette da scuderia
- 42** PIERRE, A., 2 King's Road, Brighton
 Self-acting hair brushes
Brosses à tête agissant d'elles-mêmes
 Selbstwirkende Haarbürsten
Spazzole da capelli funzionando da se

GROUP IV.

Clothing (including Fabrics*) and other Objects worn on the Person.
Vêtements (Tissus compris†) et autres Objets portés par la personne.
 Kleidung (einschliessend Zeuge‡) und andere Gegenstände der Bekleidung.

Panni (inclusi Tessuti §) e altri Oggetti per uso d' Abbigliamento.

President of the Jury <i>Président du Jury</i> President des Preis- gerichts <i>Presidente de' Giurati</i>	}	DUKE OF MANCHESTER.
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Associate <i>Associé</i> Zweiter Vice- Präsident. <i>Associato</i>	}	RT. HON. SIR W. HUTT, K.C.B., M.P.
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CLASS XXVII.

Cotton Thread and Fabrics.

Fils et Tissus de Coton.

Baumwollene Garne und Fabricate.

Fili e Tessuti di Cotone.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe, Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.

Right Hon. George J. Goschen, M.P.

Right Hon. Thomas Gabriel, Lord Mayor of London

Right Hon. W. L. Joynet, Lord Mayor of Dublin

Edward Akroyd, Esq. M.P.

Henry Ashworth, Esq.

Thomas Bazley, Esq. M.P.

Somerset A. Beaumont, Esq.

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Thomas Field Gibson, Esq.

Lewis Heymann, Esq.

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Darnton Lupton, Esq.

Wright Mellor, Esq.

John Lytle, Esq.

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Edmund Potter, Esq. M.P.

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Malcolm Ross, Esq.

Richard Russell, Esq.

William Scholefield, Esq. M.P.

Harry Walker, Esq.

G. Wallis, Esq. Secretary

JUROR—MEMBRE DU JURY PREISRICHTER—GIURATO

Malcolm Ross, Esq.

ASSOCIATE—ASSOCIÉ HULFSPREISRICHTER—ASSOCIATO.

G. Wallis, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

* Articles of clothing, as ordinarily worn, the merit of which lies in their useful qualities combined with cheapness, are methodically exhibited in Class 91, Group X.

† Les objets d'usage courant destinés au vêtement, et qui se recommandent par les qualités utiles unies au bon marché, sont méthodiquement exposés dans la Classe 91, Groupe X.

1 ASHWORTH, EDMUND, & SONS, Egerton Mills, Bolton

Sewing cotton and yarn

Fils de coton à coudre, cotons filés

Nähzwirn und Garne

Cotone da cucire, e scempio

2 BAZLEY, HENRY, & Co., Ancoats, Manchester

Cotton yarns

Fils de coton

Baumwollene Garne

Fili scempi di cotone

3 BROOK, JONAS, & BROTHERS, Meltham Mills, Huddersfield

Sewing cotton

Fils de coton à coudre

Nähzwirn

Cotone da cucire

4 CLARK & Co., Paisley

Sewing cotton, &c.

Fils de coton à coudre, etc.

Nähzwirn etc.

Cotone da cucire, ecc.

5 COATS, J. & P., Ferguslie Works, Paisley

Sewing cotton

Fils de coton à coudre

Nähzwirn

Cotone da cucire

6 THE COTTON SUPPLY ASSOCIATION, Manchester

Cotton samples, cotton gin, cotton processes

Échantillons de cotons, machine à égrener le coton, préparation du coton

Rohe Baumwolle, Egrenirmaschine, Verarbeitungsprocesse etc.

Campioni di cotone, sgranatoio da cotone, preparazioni del cotone

‡ Gewöhnliche Bekleidungsgegenstände, die sich durch Nützlichkeit und Wohlfeilheit auszeichnen, sind in Klasse 91, Gruppe X. ausgestellt.

§ Oggetti d'abbigliamento, quali sono ordinariamente usati, il cui merito consiste nelle loro qualità utili combinate coll' economia, sono esposti metodicamente alla Classe 91, Gruppo X.

- 7 DICKINS & Co., Spring Vale Works, Middleton, Manchester
Dyed and polished cotton yarns
Fils de cotons teints et lustrés
Gefärbte und geglättete baumwollene Garne
Filo di cotoni tinti e lustrati
- 8 EVANS, WALTER, & Co., Derby (App. p. 111)
Cotton thread
Fils de coton
Baumwollenzwirn
Filo di cotone
- 9 FAULKNER, HENRY, & Co., 6 Castle-court, Lawrence-lane, London
Cotton twine
Ficelle de coton
Packzwirn
Cordella di cotone
- 10 *HEATON, T. & J., Lostock, near Bolton
Fine yarns—*Cotons filés*
Feine Garne—*Filo scempio fino*
- 11 JOHNSON, J. MARSHALL, Mirfield, near Huddersfield
Cotton granderelle, twist, and double warps
Trame de coton, chaîne et double-chaîne
Vorgespinnste, einfache und doppelte Ketten-garne
Granderelle, ritorto, e ordito doppio di cotone
- 13 TOLSON, WILLIAM, Fazeley, Staffordshire
Cotton yarns, boot-webs, &c.
Cotons filés, toiles pour cordonniers, etc.
Baumwollene Garne, Gewebe für Schuhe
Filo scempio di cotone, nastro a spina da stivali
- 14 TOWNSEND, THOS., & SON, West Orchard Mills, Coventry
Grey, dyed, and dressed cotton yarns
Fils de coton gris, teints et apprêtés
Graue, gefärbte und appretirte baumwollene Garne
Filo scempio di cotone, greggio, tinto, e insaldato

- 15 WATERS, J. & E., & Co., 31 Portland-street, Manchester
Sewing cottons
Cotons à coudre
Nähzwirn
Cotone da cucire

Cotton Fabrics.
Tissus de Coton.
Baumwollenfabricate.
Tessuti di Cotone.

- 16 ARMITAGE, E., & SONS, Manchester
Cotton and linen manufactures
Tissus de coton et de lin
Baumwollene Güter
Cotonami
- 17 BARLOW & JONES, 81 Fountain-street, Manchester
Quilts, quiltings, cotton blankets, sheetings, counterpanes, damasks, &c.

Courte-pointes, piqués, draps de lit, couvre-pieds et couvertures de coton; tissus de coton damassés, etc.
Durchnähte Decken, Piqués, baumwollene Bettdecken, Bettleinwand, gesteppte Decken, Damaste
Coltroni, roba da coltroni, sottocoperte di cotone, tele da lenzuola coperte, roba damascata, ecc.

- 18 BARLOW, SAMUEL, & Co., 64 Major-street, Manchester
Cotton goods—*Tissus de coton*
Baumwollene Güter—*Cotonami*
- 19 CHRISTY, W. M., & SONS, 14 Back Mosley-street, Manchester
Cotton and linen manufactures
Tissus de coton et de fil
Baumwollene und leinene Fabricate
Manifatture di cotone e di lino

- 20 CREWDSON & WORTHINGTON, 12 Back Mosley-street, Manchester
White calicoes—*Calicots blancs*
Weisse Kattune—*Calicò bianchi*

- 21 GLOVER, WM. HENRY, & Co., Queen-street, Albert-square, Manchester
Turkish towels and Terry cloth
Essuie-mains de Turquie, tissus épinglés
Türkische Handtücher, Terrytücher
Asciugamani alla Turca, e tele ruvide dette 'Terry'

- 22 HALL & UDALL, Manchester and Oldham
Velvets, velveteens, &c.
Velours, velours de coton croisé, etc.
Sammet, unechter Sammet oder Halbsammet
Velluti, leggeri e gravi, ecc.

- 23 HAWKINS, J., & SONS, Greenbank Mills, Adelphi-street, Preston
Cotton shirtings and twills
Tissus de coton pour chemises, tissus croisés
Baumwollene Hemdenzeuge, geköperte Zeuge
Tele di cotone, a spina, o da camicie

- 24 HORROCKSES, MILLER, & Co., Preston and London
Longcloths and twilled shirtings and sheetings
Calicots et tissus de coton croisés pour chemises, et draps de lit
Schirtinge und geköperte Hemdenzeuge und Betttücher
Cambri, e tele a spina di cotone per camicie e lenzuola

- 25 JOHNSON, JABEZ, & FILDES, 44 Spring-gardens, Manchester
Quilts, quiltings, toilet covers, flannel shirtings, &c.
Courte-pointes, piqués, tissus pour l'ameublement, chemises de flanelle, etc.
Decken, Steppdecken, Toilettendecken, flanelle Hemdenzeuge etc.
Coltroni, roba da coltroni, copertine da toeletta, flanelle da camiciole

26 KESSELMAYER & MELLODEW, 1 Peter-street,
Manchester
Cotton velvets, velveteens, cords, moleskins
Velours de coton croisé, velours à côtes, mole-
skins, etc.

Sammet, Halbsammet (Felbel), Cords, baum-
wollene gerippte Westenzeuge
Velluti, leggeri e gravi, cordonati, e mezzopanni
di cotone

27 LANGWORTHY BROTHERS & Co., 12 Char-
lotte-street, Manchester
Cotton and linen cloth goods, cords, vel-
veteens, drills, &c.

Tissus de coton, toiles et coutils, velours à côtes,
velours de coton croisé, etc.

Baumwollene und leinene Waaren, Cords,
Halbsammet (Felbel), Zwillich etc.

Manifatture in tele di lino e di cotone, cor-
dinati, velluti gravi, e roscendoc di cotone

28 MARTIN & JOHNSON, Fletcher-street Mill,
Bolton

Dimities, damasks, satteens, shirtings, twills,
&c.

Tissus de coton damassés, basins, satins, croisés,
tissus de coton pour chemises, etc.

Geköperter Barchent, Damaste, Atlass, Hem-
denstoffe geköpernte Zeuge etc.

Dobletti, damascati, satinati, robe da camicie,
a spina, ecc.

29 RADCLIFFE, S., & SONS, Lower House Mills,
Oldham

Calicoes, sheetings, &c.

Calicots, draps de lit, etc.

Schirtinge, Beltleinwand etc.

Tela da camicie e da lenzuoli, ecc.

30 SAMUELS, HENRY, 12 Bond-st., Manchester

Cotton velvet, velveteens, cords, drills, &c.

Velours de coton, velours de coton croisé, velours
à côtes, coutils, etc.

Baumwollensammet, Halbsammet, Cords,
Zwillich etc.

Velluto leggero e grave, cordonati, e roscendoc
di cotone, ecc.

31 SMITHSON, J., & Co., Court-street, Bradford

Shirtings, mixed fabrics, &c.

Calicots pour chemises, tissus mêlés, etc.

Schirtinge, gemischte Zeuge etc.

Tela per camicie, tessuti misti, ecc.

CLASS XXVIII.

Thread and Fabrics of Flax, Hemp, &c.
Fils et Tissus de Lin, Chanvre, etc.

Zwirn und Fabricate von Flachs, Hanf
etc.

Filo e Tessuti di Lino, Canapa, ecc.

(For detailed classification, see p. xviii.)
(*Voir le système de classification, p. xviii.*)
(Für detaillirte Classification, siehe Seite xviii.)
(*Vedasi il sistema di classificazione, p. xviii.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

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William Spotten, Esq.

ASSOCIATE—ASSOCIÉ HÜLFSPREISRICHTER—ASSOCIATO.

G. Wallis, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 AINSWORTH, THOMAS, Cleator Mills, White-
haven

Linen yarn, thread, boot-webs, tapes

Fils de lin, fils à coudre, tissus pour cordonniers,
rubans, passementerie

Zeinenes Garn, Zwirn, Schuhleinwand und
schmale Bänder

Filo scempio, e torto, nastro a spina da stivali,
passamani

2 BELL, WILLIAM L. & HENRY H., & Co.
Bedford-street, Belfast

Linen goods

Tissus de lin

- Leinene Zeuge
Manifatture di lino
- 3 BROWN, JOHN S., Bedford-street, Belfast
Damask table linen, linen, diaper, cambric handkerchiefs, &c.
Nappes et serviettes damassés pour service de table, tissus de lin, toiles ouvrées, mouchoirs de batiste, etc.
Damastene Tischtücher, Leinwand, geblümete Leinwand, batistene Taschentücher etc.
Roba da tovaglie damascata, tele di lino, roba operata, fazzoletti di tela battista, ecc.
- 4 CASH, J. & J., 70 Hertford-street, Coventry
Cambric, frillings
Batiste, garnitures
Batist, Garnituren
Tela battista, guarnizioni
- 5 CHARLEY, JOHN & WILLIAM, & Co., Seymour Hill, Dunmurry, near Belfast
Bleached and brown linen
Tissus de lin écrus et blancs
Gebleichte und ungebleichte Leinwand
Tele di lino imbiancate e gregge
- 6 COSTERTON, CHARLES FISHER, Scolé, Nor
Flax in all stages, and yarn
Lins à divers degrés de préparation, fils de lin
Flachs in den verschiedenen Stufen der Verarbeitung und Garn
Lino in tutti gli stadi, e filo scempio
- 7 EBDY, CHARLES, Durham
Samples of cord and curled hair
Échantillons de cordes, crin à rembourrer
Muster von Bindfaden und gelocktem Haar
Campioni di cordella, e crine arricciato
- 8 FENTON, SON, & Co., & FENTON, S. G., & Co., Linen Hall, Belfast
Linens and linen yarns
Fils de lin et tissus de lin
Leinwand und leinene Garne
Tele di lino, e filo di lino scempio
- 9 GIRDWOOD, W., & Co., Oldpark Print Works, Belfast
Flaxen fabrics, bleached, printed, padded, &c.
Toiles blanches, imprimées, etc.
Flachsene Stoffe, gebleicht, gedruckt etc.
Tessuti di lino, imbiancati, stampati, imbottiti, ecc.
- 10 GLASGOW JUTE COMPANY (Limited), Baltic and Clyde Linen Works, Glasgow
Jute yarns and jute fabrics
Fils de jute (chanvre des Indes), tissus de jute
Garne und Stoffe von Jute
Tessuti e filo scempio di canapa d'India (jute)
- 11 HOUNSELL, H. E., Bridport
Twines, cords, nets, &c. (see Agricultural Building)
Ficelles, cordes, filets, etc. (voir le Bâtiment d'Agriculture)
Bindfaden, Schnuren, Netze u. s. w. (siehe das Gebäude für Ackerbau)
Cordelle, ficelle, reti, ecc.
- 12 JAFFE BROTHERS, 10 Donegall-square South, Belfast
Linen goods
Tissus de lin
Leinene Stoffe
Manifatture di lino
- 12A *LEEDS CHAMBER OF COMMERCE, Leeds
Linen manufactures—*Tissus de lin*
Leinene Stoffe—*Manifatture di lino*
- 13 *LUDOFF, H., Leeds
Specimens of flax, &c., and linen yarns, threads, &c., spun by Messrs. Marshall & Co., Wilkinson & Co., Titley, Tatham, & Walker, of Leeds, and by Messrs. J. & G. Metcalfe, Pateley Bridge, near Leeds
Fils de lin, fil, etc.
Muster von Flachs etc., leinene Garne, Zwirne etc.
Campioni di lino, ecc., e filo scempio, torto, ecc.
- 14 MATIER, HENRY, & Co., Clarence-place, Belfast
Linens, handkerchiefs, damasks, embroideries, towels, &c.
Tissus de lin, mouchoirs, toiles damassées, broderies, serviettes, etc.
Leinwand, Taschentücher, Damaste, Stickeren, Handtücher etc.
Tele di lino, fazzoletti, damascati, ricami, asciugamani, ecc.
- 15 MOORE & WEINBERG, Donegall-square, Belfast
Flaxen manufactures
Tissus de lin
Leinene Manufacturwaaren
Manifatture di lino
- 16 NICOLLE, LIEUT.-COLONEL EDWARD, Midvale, St. Heliers, Jersey
Fibres, cloths, and cordage of China grass, and improved manilla
Fibres végétales, tissus et cordages de mâ ou China grass, abaca ou chanvre de Manille, etc.
Fasern, Tüche und Seilerwaaren von China-gras und verbesserte Manilla
Fibre, tele, e cordami d'erba cinese, e canapa di Manilla (abaca) perfezionata
- 17 PEGLER, CHARLES, & Co., Leeds
Linen damask—*Toiles damassées*
Leinendamast—*Damascati di lino*
- 18 SOUTTER, R. & R., 21 & 23 Broad-street, Ratcliff, London, E.
Tarpaulin, cotton and linen oil-cloth, &c.
Toiles goudronnées, toiles cirées, etc.
Theertuch, baumwollene und leinene Wachseleinwand etc.
Tele incatramate, incerati di lino e di cotone
- 19 STEPHENS & Co., Asker Mills, Bridport
Flax sail-canvas, twines, and shoe thread
Toiles à voile, ficelles, fil pour cordonniers
Leinene Segeltuch, Packzwirn und Schuhdraht
Tele da vela di lino, cordelle, e filo torto da scarpe

20 TUCKNEY, JOHN, & Co., 47 Duke-street,
Manchester-square, London
The Fox Hunt table-cloths, napkins, &c.
Nappes, dites 'Fox Hunt,' serviettes de table,
etc.
Fuchsjagd-Tischtücher, Servietten etc.
Tovaglie e tovaglioli detti alla 'Fox Hunt'
(caccia alla volpe)

CLASS XXIX.

Combed Wool and Worsted Fabrics.
Fils et Tissus de Laine Peignée.
Stoffe aus gekämmter und gesponne-
ner Wolle.
Tessuti in Lana Pettinata e Stame.

(For detailed classification, see p. xviii.)
(*Voir le système de classification*, p. xviii.)
(Für detaillirte Classification, siehe, Seite xviii.)
(*Vedasi il sistema di classificazione*, p. xviii.)

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Thomas Bazley, Esq. M.P.
Somerset A. Beaumont, Esq.
W. H. Clabburn, Esq.
Thomas Field Gibson, Esq.
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Harry Walker, Esq.

G. Wallis, Esq. *Secretary.*

JUROR—MEMBRE DU JURY PREISRICHTER—GIURATO.

W. Morris, Esq.

ASSOCIATE—ASSOCIÉ HÜLFSPREISRICHTER—ASSOCIATO.

J. Law, Esq.

1 AKROYD, JAMES, & SON, Halifax
Worsted fabrics, mixed fabrics of cotton and
worsted, worsted yarns
Tissus de laine, tissus de laine et coton, fils de
laine peignée

Wollenzeuge, aus Wolle und Baumwolle ver-
fertigte Stoffe, Wollengarne
Tessuti di stame, tessuti misti di cotone e stame
filo scempio di stame

2 THE BRADFORD CHAMBER OF COMMERCE,
Bradford

Worsted, alpaca, and mohair goods; mixed
fabrics; combed wool, worsted yarns, &c.
Tissus de laine peignée, d'alpaca, de poil de
chèvre; tissus mélangés; fils de laine peignée
Wollen-, Alpaca- und Kameelhaarzeuge ge-
mischte Zeuge, gekämmte Wolle, Wollen-
garn etc.
Manifatture di stame, alpaca, e pel di capra,
tessuti misti, lane pettinate, filo scempio di
stame, ecc.

3 *FRANCE, JAMES, Dewsbury

Worsted yarns
Fils de laine peignée
Gesponnene Garne
Filo scempio di stame

4 *HOLT, AMOS, & Co., Cardigan Mill, East
Ardley, near Wakefield
Manufactured mohair fabrics
Tissus de poil de chèvre
Kameelgarn-Zeuge
Tessuti manifatturati in pel di capra

5 MIDDLETON, ANSWORTH, & Co., 33 St. Paul's
Churchyard, London
Fabrics for dresses, mantles, horsehair crino-
line, &c.

Tissus pour robes, manteaux, châles, crinoline
de crin, etc.
Stoffe für Kleider, Mäntel, Crinoline von
Pferdehaaren
Tessuti per abiti, mantiglie, crinoline di crine,
ecc.

6 MITCHELL & SHEPHERD, Bradford

Worsted yarns and stuffs
Fils de laine et étoffes
Wollene Garne und Stoffe
Filo scempio, e stoffe di stame

7 *NIGHTINGALE & Co., 64 Wardour-street,
London

Horsehair mats for wine presses, &c.
Tissus de crin pour pressoirs, etc.
Pferdehaarmatten für Weinpressen etc.
Stoia di crino per torcoli, ecc.

8 SMITHSON, JOSEPH, & Co., Brunswick Mills,
Halifax, and 3 Court-street, Bradford
Winseys, skirtings, woollen shirtings, &c.
Cachemires d'Ecosse, tissus pour robes, chemises
de flanelle, etc.
Casimirstoffe für Damenkleider, wollene
Hemdenstoffe etc.
Winseys, stoffe da abiti, roba per camiciole di
lana

9 TAYLOR, C. F., & Co., Shipley, near Bradford
Wool, worsted yarns, and stuffs
Laine, fils de laine et draps
Wolle, wollene, Garne und Zeuge
Lana, fili scempi di stame, e stoffa

10 WATERS, J. & E., & Co. (see Class 27)

Braids
Passementerie
 Posamentierwaaren
Passamanó

CLASS XXX.

Carded Wool and Woollen Fabrics.

Fils et Tissus de Laine Cardée.

Gekrämpelte Wolle und Wollenwaaren.

Lane e Tessuti di Lana Cardati.

(For detailed classification, see p. xviii.)

(*Voir le système de classification*, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione*, p. xviii.)

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H. S. Way, Esq.

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PREISRICHTER—GIURATO

Edward Huth, Esq.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

H. S. Way, Esq.

NOTE.—Names marked with an asterisk are those of
 persons who do not exhibit in this class.

1 *ABLETT, W. H., Mead End House, Eastwick,
 near Harlow

Patterns of textile fabrics

Echantillons de tissus

Muster von gewobenen Stoffen

Campioni di materiali da tessere, tessuti

2 ARMITAGE, JAMES, & Co., Huddersfield

Fancy fabrics of woollen and worsted

Tissus de laine façonnés

Wollene Modewaaren

Tessuti di lusso in lana e stame

2A ASPINALL, BROTHERS, 15 Russell-street,

Leeds

Union woollen cloths, etc.

Tissus de laine mélangés, etc.

Halbwollene Tuche

Panni di Cana e cotone detti union

3 BAINES & HIRST, Morley, near Leeds

Union cloths

Tissus mélangés

Halbwollene Tuche

Panni di lana e cotone detti union

4 BAKER & MAY, Old Ford-road, Bow

Patent hair felt

Feutre de poil breveté

Patentirter Haarfilz

Feltro di pelo (patentato)

5 BARNICOT & KENYON, Huddersfield

Fancy fabrics of wool, Bedford cords, &c.

*Tissus de laine façonnés, velours à côtes, dit
 'de Bedford,' etc.*

Wollene Modewaaren, Bedfords (gerippte
 Stoffe) etc.

*Tessuti di lusso in lana, tessuti cordonati detti
 'Bedford'*

6 THE BATLEY CHAMBER OF COMMERCE

Finished woollen cloths

Draperie

Appretirte wollene Tuche

Panni di lana finiti

7 BERRY & TURNER, Huddersfield

Fancy fabrics of woollen and angola

Tissus façonnés de laine et d'angola

Modewaaren aus Wolle und Angola

Tessuti di lusso di lana e d'angola

8 *BERRY, WALTER, Ossett, near Wakefield

Woollens and unions for winter clothing

*Tissus de laine et tissus mélangés pour vêtements
 d'hiver*

Wollene und halbwollene Winterstoffe

*Panni lani e panni lana e cotone per abiti da
 inverno*

9 BINNS, GODFREY, & SON, Huddersfield

Fancy fabrics of woollen and angola

Tissus façonnés de laine et d'angola

Modestoffe aus Wolle und Angola

Tessuti di lusso di lana e d'angola

10 BIRCHALL, J. D., & Co., Leeds

Fancy coatings, meltons, cloths, &c.

Draps de fantaisie pour habits, draps divers

Modestoffe für Röcke, Meltons, Tuche etc.

*Roba di lusso da vestiti, panni detti meltons,
 panni, ecc.*

11 BLISS, WILLIAM, & SON, Chipping Norton,
 Oxon

Tweeds, serges, shawls, and saddlers' woollens

Tweeds, serges, châles, couvertures de chevaux

Tweeds, Sarsche, Umschlagetücher, Wollen-
 waaren für Sattler

*Panni cascinet detti tweeds, sargie, scialli, e
 coperte da sellai*

- 12 BROWN, J. & H., & Co., Selkirk, N.B.
 Scotch tweeds
Tweeds écossais
 Schottische Tweeds
Cascinet scozzesi detti tweeds
- 13 BULL & WILSON, 52 St. Martin's-lane, London
 Fancy trouserings, cloths, and coatings
Draps façonnés pour pantalons, draps d'habits
 Modestoffe für Hosen und Röcke, Tuche
Roba da pantaloni, panni, e roba da vestiti, di lusso
- 14 BYERS, ANDREW, & SON, Langholm, N.B.
 Scotch tweeds and mauds
Tweeds et autres tissus écossais
 Schottische Tweeds etc.
Cascinet scozzesi detti tweeds, e mauds
- 15 CAMBRIAN FLANNEL COMPANY (Limited), Newtown, Montgomeryshire
 Flannels—*Flanelles*
 Flanelle—*Flanelle*
- 16 CARR, ISAAC, & Co., Twerton Mills, near Bath
 Woollen cloths—*Tissus de laine*
 Wollene Tuche—*Panni di lana*
- 17 *CHILD, J. & J., Shelley, near Huddersfield
 Fancy mantles, cloths, skirts of wool, worsted and cotton mixed
Draps, manteaux et jupes de laine, et tissus de laine peignée, avec mélange de coton
 Modemäntel, Tuche, Damenkleiderstoffe aus Wolle, und aus mit Baumwolle gemischter Wolle
Mantiglie, panni, sottane di lana, stame e cotone misti, di lusso
- 18 *CLAFTON, J. W., & Co., Ossett
 Woollens and unions
Draps de laine, tissus mêlés
 Wollene und halbwoollene Waaren
Panni lani e panni lana e cotone
- 19 CLAY, J. TRAVIS, Rastrick, near Huddersfield
 Fancy fabrics of woollen and worsted
Draps de laine façonnés
 Wollene Modezeuge
Tessuti di lusso di lana e stame
- 20 CROGGON & Co. (see Class 52)
 Felt for roofing, clothing boilers, &c.; dry-hair and inodorous felt
Feutres pour couvertures, chaudières, etc.; poils séchés et feutres inodores
 Filz zum Dachdecken, zum Bedecken der Dampfkessel etc.; geruchloser Filz von trockenem Haar
Feltro per tettoie, caldaie, ecc., feltro di pelo asciutto e inodoro
- 21 CROSLAND, W. & H., Huddersfield
 Fancy woollen fabrics
Draps de laine façonnés
 Wollene Modezeuge
Tessuti di lusso in lana
- 22 CROWTHER, JAMES, & SONS, Huddersfield
 Plain and fancy woollen fabrics
Draps de laine unis et façonnés
 Mode- und einfache Wollenstoffe
Tessuti di lana ordinari e di lusso
- 23 DAVIES, ROBERT S., & SONS, Stonehouse, Gloucestershire
 Cloths and doeskins
Draps et tissus de laine pour pantalons, etc.
 Tuche und Hosenstoffe
Panni e cuoiolani
- 24 DAWN, WILLIAM, 10 Little Knight-street, London
 Patterns of woollen and worsted fabrics
Échantillons de tissus de laine, et de tissus de laine peignée
 Muster von Stoffen aus Wolle und gedrehtem Garne
Campioni di tessuti in lana e stame
- 25 DAY, NEPHEW, & SON, Dewsbury
 Pilots, witneys, &c.
Draps forts pour paletots, et autres tissus de laine
 Pilots, Witneys etc.
Panni grossi per soprattuti
- 26 DAY, WATKINSON, & Co., Huddersfield
 Bedfords, hunting cords, and drab box cloths
Velours à côtes dit 'de Bedford,' draps pour voitures, et pour la chasse
 Gerippte Tuche (Bedfords), Tuche für Reitanzüge, starke Tuche für Kutschen
Panni detti 'Bedfords,' cordonati da caccia, e panni grigi chiari da serpa
- 27 DAY, HOWGATE, & HOLT, Dewsbury
 Fancy woollen fabrics
Tissus de laine façonnés
 Wollene Modestoffe
Tessuti di lusso in lana
- 28 DIXON, NICHOLLS, & Co., Morley, and 11 Russell-street, Leeds
 Union cloths
Tissus mêlés
 Halbwoollene Tuche
Panni lana e cotone detti union
- 29 FERRABEE, JAMES, Port Mill, Brimscombe, near Stroud (Appendix, p. 205)
 Carded wool, woollen yarn, cloth, &c.
Laine cardée, fils de laine, draps, etc.
 Gekrempelte Wolle, Wollengarn, Tuch etc.
Lana cardata, filo scempio di lana, panno, ecc.
- 30 FIRTH, EDWIN, & SONS, Heckmondwike, near Leeds
 Fancy fabrics of woollen, mohair, &c.
Tissus façonnés de laine, de poil de chèvre, etc.
 Modestoffe aus Wolle und Kameelgarn etc.
Tessuti di lusso in lana, pel di capra, ecc.
- 31 GLENDINNING, JOHN, Langholm, N.B.
 Scotch tweeds and mauds
Tweeds écossais, cachemires d'Écosse
 Schottische Tweeds und Mauds
Cascinet scozzesi detti tweeds e mauds

- 32 GEISSLER, H.,** Kirkburton, near Huddersfield
Fancy fabrics of wool, mohair, and cotton
Tissus façonnés de laine, de poil de chèvre, et de coton
Modestoffe aus Wolle, Kameelgarn und Baumwolle
Tessuti di lusso in lana, pel di capra, e cotone
- 33 HAIGH, GEORGE,** Slaithwaite, near Huddersfield
Fancy fabrics of woollen and angola
Tissus façonnés de laine et d'angola
Modestoffe aus Wolle und Angola
Tessuti di lusso in lana e angola
- 34 HALL & FRATER,** Langholm, Dumfriesshire
Scotch tweeds and plaids
Tweeds écossais, cachemires d'Écosse
Scottische Tweeds und Plaids
Panni lani scozzesi detti tweed; scialli scozzesi detti plaids
- 35 HALL & UDALL,** Manchester and Oldham
Felt goods, ducks, drills, &c.
Feutres, couitils, drills, etc.
Filzwaaren, Sacktuch, Zwillich etc.
Manifatture di feltro, panni tralicci detti ducks, panni a spina, ecc.
- 36 HARGREAVE & NUSSEYS,** Leeds
Meltons, cloths, &c.
Draps pour paletots, tissus de laine, etc.
Meltons, Tuche etc.
Panni detti meltons, panni, ecc.
- 37 HARRISON, GEORGE, & Co.,** 31 North Bridge-street, Edinburgh
Scotch tweeds
Tweeds écossais
Schottische Tweeds
Cascinet scozzesi detti tweeds
- 38 *HARROP, GEORGE,** Ossett
Woollens and unions
Tissus de laine, et tissus mêlängés
Wollene und halbwoollene Tuche
Panni lani, e panni lana e cotone detti union
- 39 HEPWORTH, BENJAMIN,** New Wakefield Mills, Dewsbury (Appendix, p. 114)
Carriage and travelling rugs
Couvre-pieds pour voyageurs
Kutschen und Reisedecken
Coperte da carrozza e da viaggio detti rugs
- 40 *HILEY, CHARLES,** Idle, near Leeds
Coloured cloths
Tissus de laine teints
Bunte Tuche
Panni colorati
- 41 HINCHCLIFFE, ELLIOT, & Son,** Black Dog Mills, Leeds
Union pilot cloths
Tissus mêlängés forts pour paletots
Halbwoollene Tuche für Paletots
Panni pilot lana e cotone, detti union
- 43 HOUSTON, HENRY, & Son,** Frome, Somerset
Woollen cords, doeskins, &c.
- Velours de laine, tissus de laine, etc.*
Cords (gerippte Tuche), Doeskins etc.
Panni lani cordonati, cuoiolani, ecc.
- 44 HOWGATE, JAMES, & SONS,** Dewsbury
Plain and fancy woollen fabrics
Draps unis et façonnés
Einfache und Modezeuge aus Wolle
Tessuti di lana ordinari e di lusso
- 45 HOWSE, MEAD, & SONS,** 19 St. Paul's Churchyard, London
Superfine woollen cloth and fancy woollen fabrics
Draps, et tissus de laine façonnés
Sehr feine wollene Tuche und Modestoffe
Panno di lana sopraffine, e tessuti di lana di lusso
- 46 HUNT & WINTERBOTHAM,** Cam and Dursley Mills, Gloucestershire
Superfine black cloths, doeskins, scarlets, billiards, &c.
Draps noirs, tissus de laine pour billards, etc.
Sehr feine schwarze Tuche und Hosenstoffe, Scharlach- und Billard-Tuche etc.
Panni neri sopraffini, cuoiolani, scarlatti, da bigliardo, ecc.
- 47 *ILLINGWORTH, GEORGE,** Ossett
Woollens and unions
Tissus de laine, tissus mêlängés
Wollene und halbwoollene Stoffe
Panni lani, e panni lana e cotone detti union
- 48 JOHNSTON, JAMES,** New Mill, Elgin, N.B.
Tweeds and plaids
Tweeds et tartans
Tweeds und gewürfelte bunte Tücher (Plaids)
Cascinet scozzesi detti tweeds, e scialli, detti plaids
- 49 *JORDAN, JAMES,** Huddersfield
Fancy fabrics of wool, mohair, silk, and cotton
Tissus façonnés de laine, de poil de chèvre, de soie et coton
Modestoffe aus Wolle, Kameelgarn, Seide und Baumwolle
Tessuti di lusso in lana, pel di capra, seta e cotone
- 50 KELL & Co.,** Huddersfield
Fancy fabrics of all wool, wool and cotton, mohair, wool, and cotton, and angola
Tissus façonnés de laine pure, de laine et coton, de poil de chèvre mêlängé de laine et de coton, et d'angola
Modestoffe aus reiner Wolle, Wolle und Baumwolle, Kameelgarn, Wolle und Baumwolle, und Angola
Tessuti di lusso di tutta lana, lana e cotone, pel di capra lana e cotone e angola
- 51 KELSALL & KEMP,** Rochdale
Plain and fancy flannels
Flanelles unies et façonnées
Einfache und Modelflanelle
Flanelle ordinarie e di lusso

52 LAING & IRVINE, Hawick, N.B.

Tweeds

Tweeds

Tweeds

Cascinet scozzesi detti tweeds

53 *LANGLEY, J., & SON, Ossett

Woollens and unions

Tissus de laine, et tissus mêlâgés

Wollene und halbwoollene Stoffe

Panni lani, e panni di lana e cotone detti union

54 LAVERTON, ABRAHAM, Westbury, Wiltshire

Fancy coatings

Drap de nouveauté pour habits

Modetücher für Röcke

Roba di lusso per abiti

55 LAWTON, GEORGE (executors of the late),

Vale Mills, Micklehurst, Mossley, near

Manchester

Flannels, yarns, &c.

Flanelles, fils, etc.

Flanelle, Garne etc.

Flanelle, filo scempio, ecc.

56 LEATHLEY, JAMES, Gildersome, near Leeds

Union cloths

Tissus mêlâgés

Halbwoollene Tuche

Panni di lana e cotone detti union

57 *THE LEEDS WOOLLEN ASSOCIATION, Leeds

Woollen cloths, pilots, union cloths, &c.

Tissus de laine, draps forts pour paletots, tissus
mêlâgés, etc.

Wollene Tüche, Ueberrockstoffe, halbwoollene

Tuche etc.

Panni di lana, panni pilot, panni lana e cotone detti union

58 MAHONY, MARTIN, & BROTHERS, 3 Camden-

quay, Cork

Tweeds, &c.

Tweeds, etc.

Tweeds etc.

Cascinet detti tweeds, ecc.

59 MANBY, JOHN, & Co., 19 Rue Auber, Paris

Scotch tweeds, shawls, tartans, &c.

Tweeds écossais, tartans, châles, etc.

Schottische Tweeds, Shawls, Tartans etc.

*Cascinet scozzesi detti tweeds, scialli, quadri-
giati detti tartans*

60 MARLING & Co., Ebley Mills, near Stroud,

Gloucestershire

Woollen cloths, doeskins, meltons, beavers

Tissus de laine, draps pour pantalons, paletots

Wollene Tuche, Hosenstoffe, Meltons, Biber

*Panni di lana, cuoiolani, panni detti meltons,
castoro*

61 MARLING, LEONARD & Co., Stanley Mills,

near Stonehouse, Gloucestershire

Woollen cloths, beavers, meltons, doeskins,

*Tissus de laine, castors, draps pour pantalons,
paletots, etc.*

Wollene Tuche, Biber, Rock- und Hosen-
zeuge etc.

Panni di lana, castoro, meltons, cuoiolani, ecc.

62 MCINTYRE, HOGG, & Co., 122 Brunswick-

street, Glasgow

Shirts—*Chemises*

Hemden—*Camicie*

63 MELLOR, T., & SONS, Thongs Bridge, near

Huddersfield

Fancy woollen goods and fabrics of wool and
silk mixed

*Tissus de laine façonnés et tissus de laine avec
mêlange de soie*

Wollene Modezeuge und Stoffe aus Wolle und
Seide

*Manifatture di lusso in lana, tessuti di lana e
seta miste*

64 MITCHELL, JAMES, & Co., Galashiels, N.B.

Scotch woollens

Cachemires d'Ecosse

Schottische Wollenstoffe

Tessuti scozzesi di lana

65 MORRISON, J. & R., Galashiels, N.B.

Scotch tweeds

Tweeds écossais

Schottische Tweeds

Scozzesi detti tweeds

65A NESS, J. L., & Co., Bannockburn Mills,

Glasgow

Scotch tweeds—*Tweeds écossais*

Schottische Tweeds—*Scozzesi detti tweeds*

66 *NETTLETON, OLIVER, Ossett

Woollens and unions

Tissus de laine et tissus mêlâgés

Wollene und halbwoollene Stoffe

Panni lani, e panni lana e cotone detti union

67 PLATT, JAMES, & Co., 78 St. Martin's-

lane, London (Appendix, p. 112)

Scotch tweeds; riding trousers

Tweeds écossais; pantalons de cavaliers

Schottische Tweeds; Reithosen

*Cascinet scozzesi detti tweeds; pantaloni da
equitazione*

68 PODD, THOMAS, & Co., Bath-lane, Leicester

Yarns spun from sheeps' wool

Fils de laine fils

Von Schafswolle gesponnene Garne

Filo scempio filato dalla lana di pecora

69 RANDALL & WAY, 127 Cheapside, London

Fancy cloths—*Drap de nouveauté*

Modetuche—*Tessuti di lusso in lana*

70 RHODES, D., & SONS, Dewsbury

Seal skins, travelling rugs

Peaux de phoque, couvre-pieds de voyage

Seehundsfelle und Reisedecke

Pelle di foca, coperte per viaggi

71 RILEY BROTHERS, Fenay Mills, near Hud-

dersfield

Fancy woollen fabrics

Tissus de laine façonnés

Wollene Modewaaren

Tessuti di lusso in lana

- 72 ROBERTS, JOWLINGS, & Co., Stroud**
Superfine wool-dyed black and blue cloths
Draps teints, noirs et bleus
Schwarze und blaue sehr feine Tuche, in der Wolle gefärbt
Panni sopraffini tinti in lana neri e blu
- 73 ROMANES & PATERSON, 59 North-Bridge, Edinburgh**
Scotch textile fabrics
Tissus de laine écossais
Schottische Manufacturwaaren
Tessuti scozzesi
- 74 SALTER, SAMUEL, & Co., Trowbridge**
Fancy trouserings and coatings
Draperie de nouveauté pour pantalons et habits
Modezeuge für Röcke und Hosen
Roba di lusso da pantaloni ed abiti
- 75 SANDERSON, R. & A., & Co., Galashiels**
Scotch tweeds, mauds, and cloakings
Tweeds écossais, cachemires, et manteaux
Schottische Tweeds, Mauds und Mäntelstoffe
Cascinet scozzesi detti tweeds, mauds, e roba da mantelli
- 76 SCHOFIELD, J., & SONS, Huddersfield**
Fancy tweeds and flannel shirtings
Tweeds et chemises de flanelle façonnés
Mode-Tweeds und flannelene Hemdenstoffe
Cascinet tweeds di lusso e tela da camicia
- 77 SCOTT, A., & SON, Morley, near Leeds**
Union cloths
Tissus mélangés
Halbwollene Tuche
Panni lana e cotone detti union
- 78 SCOTT, F. & R., & Co., Island Bridge Mills, Dublin**
Tweeds, friezes, &c.
Tweeds, frises, etc.
Tweeds, Frieze etc.
Cascinet scozzesi detti tweeds, carpite
- 79 SCOTT, JAMES, & SONS, Waverley Mills, Langholm**
Plain and fancy tweeds
Tweeds unis et façonnés
Einfache und Mode-Tweeds
Cascinet tweeds ordinari e di lusso
- 80 SCOTT, ROBERT, Huddersfield**
Fancy woollen fabrics—*Draperie de nouveauté*
Wollene Modestoffe—*Tessuti di lusso in lana*
- 81 SCOTT, WALTER, Troqueer Mills, Dumfries**
Scotch tweeds
Tweeds écossais
Schottische Tweeds
Cascinet scozzesi detti tweeds
- 81A SHAW & SPIVEY, Huddersfield**
Woollen fabrics—*Tissus de laine*
Wollenfabricate—*Tessuti di lana*
- 82 SMALPAGE & SON, 41 and 43 Maddox-street, Bond-street, London (Appendix, p. 113)**
The 'Beaufort Stalking Coat,' military outfitting, and woollen goods
Veste de chasse dit 'Beaufort,' équipement militaire et tissus de laine
- Beaufort-Jagdrock, militärische Ausrüstung und wollene Tuche**
Abito da caccia detto 'Beaufort,' abiti militari, e tessuti di lana
- 83 *SMITH, ROBERT, & SON, Park Vale and Hayford Mills, Stirling**
Winseys and fancy petticoatings
Tissus de laine, et tissus façonnés pour jupes
Winseys und Modestoffe für Unterröcke
Tessuti di lana, tessuti di lusso per sottane
- 84 SMITH, THOMAS, & SONS, Leeds**
Union cloths
Tissus mélangés
Halbwollene Tuche
Panni lana e cotone detti union
- 85 SMITH, WILLIAM, JUN., Morley, Yorkshire**
Union cloths
Tissus mélangés
Halbwollene Tuche
Panni lana e cotone detti union
- 86 STOCKDALE, WILLIAM, High Burton, near Huddersfield**
Fancy fabrics of woollen, worsted, and mohair
Tissus de laine façonnés, de poil de chèvre et de laine peignée
Modestoffe aus Wolle, Wollengarn und Kameelgarn
Tessuti di lusso in lana, stame, e pel di capra
- 7 STOCKWELL, J. & E., Morley, near Leeds**
Union cloths
Tissus mélangés
Halbwollene Tuche
Panni lana e cotone detti union
- 88 STRACHAN & Co., Lodgemore and Frome Hall Mills, Stroud**
Woollen cloths—*Tissus de laine*
Wollene Tuche—*Panni di lana*
- 89 SYKES, E. T., Victoria Mills, Rashcliffe, Huddersfield**
Fancy woollens
Draps façonnés
Wollene Modestoffe
Pannilani di lusso
- 90 TAYLOR, J. E., BROTHERS, Almondbury, near Huddersfield**
Fancy fabrics of all wool, and wool, mohair, and cotton
Tissus de laine pure, et tissus de laine, poil de chèvre et coton
Modezeuge aus reiner Wolle, und Wolle, Kameelgarn und Baumwolle
Tessuti di lusso di tutta lana, e lana, pel di capra, e cotone
- 91 TAYLOR, JOHN, & SONS, Huddersfield**
Fancy fabrics of woollen, worsted and wool, and silk mixed
Tissus façonnés de laine, tissus de laine peignée avec mélange de soie
Modewaaren aus Wolle, Wolle und Wollengarn, und Seide
Tessuti di lusso in lana, stame e lana e seta misti

- 92 TAYLOR & LODGE**, Newsome, near Huddersfield
Wool and silk coatings, trouserings, and fancy vestings
Tissus de laine et de soie pour habits, pantalons, etc.
Wollene und seidene Stoffe für Röcke, Hosen und Westen
Roba da abiti e pantaloni in seta e lana, e roba di lusso da sottovesti
- 93 TERRY & SHAW**, Huddersfield
Plain and fancy woollen fabrics
Tissus de laine unis et façonnés
Einfache und Modewaaren aus Wolle
Tessuti di lana ordinari e di lusso
- 94 THACKRAH, ELLIS, & Co.**, Dewsbury
Fancy fabrics of woollen and wool and mohair mixed
Tissus façonnés de laine, et de laine avec mélange de poil de chèvre
Modestoffe aus Wolle, Wolle und Kameelgarn
Tessuti di lusso in lana, e lana e pel di capra misti
- 95 THOMSON & DODDS**, Priest Royd Mill, Huddersfield
Fancy woollen goods
Tissus de laine façonnés
Wollene Modetuche
Manifatture di lusso in lana
- 96 TOLSON, HAIGH, & BROOKE**, Mold-green, near Huddersfield
Fancy woollens and yarn vestings
Tissus de laine façonnés et fils de laine pour habits
Wollene Modewaaren und leinene Westensstoffe
Panni lani e sottoveste di filo di lana di lusso
- 97 VICKERMAN, B., & SONS**, Huddersfield
Fancy woollen and worsted fabrics
Tissus de laine façonnés
Modewaaren aus Wolle und Wollengarn
Tessuti di lusso in lana e stame
- 97A WADE, ADAM**, Porto Bello Mills, Wakefield
Union pilot cloth
Tissus forts mélangés
Halbwoollene Tuche, 'union pilot' genannt
Panno lana e cotone detto 'union pilot'
- 98 WADE, JOSEPH, & SON**, Wakefield
Union cloths
Tissus mélangés
Halbwoollene Tuche
Panno lana e cotone detto union
- 99 *WALKER, HENRY, & SON**, Mirfield, near Huddersfield
Fancy fabrics of woollen and mohair
Tissus façonnés de laine et poil de chèvre
Modewaaren aus Wolle und Kameelgarn
Tessuti di lusso in lana e pel di capra
- 100 WALKER, J., & SONS**, Lindley, near Huddersfield
Fancy fabrics of mohair, alpaca and mohair, for cloakings, &c.
Tissus de poil de chèvre, d'alpaca et de poil de chèvre, pour manteaux, etc.
Modewaaren aus Kameelgarn, Alpaca und Kameelgarn für Mäntel etc.
Tessuti di lusso in pel di capra, alpaca, e pel di capra per mantelli
- 101 WALKER, HENRY**, Slaithwaite, near Huddersfield
Fancy fabrics of woollen and angola
Tissus façonnés de laine et d'angola
Modetücher aus Wolle und Angola
Tessuti di lusso in lana e angola
- 102 WATSON, RHODES, & Co.**, Rods Mills, Morley
Union cloths
Tissus mélangés
Halbwoollene Tuche
Panni lana e cotone detti union
- 103 WEBSTER, JOSEPH, & SON**, Gildersome, near Leeds
Pilots, union cloths, ponchas, &c.
Draps forts pour paletots, tissus mélangés, etc.
Paletot- und halbwoollene Tuche, Ponchas etc.
Pilot, panno lana e cotone detto union, e mantelli poncho
- 104 *WILLIAMS, JOHN, NEPHEW, & Co.**, 34 Charlotte-street, Manchester
Flannels, blankets, and soft-spun woollens
Flanelles, couvertures, molletons
Flannelle, wollene Bettdecken und Molletons
Flanelle, coperte, e roba di lana filata molle
- 105 WILSON, JOHN J. & WM.**, Castle Mills, Kendal
Railway rugs, horse clothing, &c.
Couvre-pieds, couvertures de chevaux, etc.
Reisedecken, Pferdedecken etc.
Coperte detti rugs per ferrovie, coperte da cavalli, ecc.
- 106 *WILSON, JOSHUA, JUN.**, Ossett
Woollens and unions
Tissus de laine, tissus mélangés
Wollene und halbwoollene Stoffe
Panni lani e panni lana e cotone detti union
- 107 ZOSENHEIM BROTHERS**, Huddersfield and Leeds
Plain and fancy woollen fabrics
Tissus de laine unis et façonnés
Einfache und Modestoffe aus Wolle
Tessuti di lana ordinari e di lusso

CLASS XXXI.

Silk and Silk Manufactures.

Soies et Tissus de Soie.

Seide und Seidenwaaren.

Seta, e Seta Manifatturata.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

*(Vedasi il sistema di classificazione, p. xviii.)*COMMITTEE—COMITÉ
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ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

C. S. Haden, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

Raw Silk and Silk Yarns.

Soies Grèges et Fils de Soie.

Rohseide und Seidenfäden.

Seta cruda, e Fil di Seta.

- 1 BIRCHENOUGH, J., 75 Aldermanbury, London
Silk handkerchiefs, scarfs, shawls, &c.
Mouchoirs, écharpes, châles, etc., de soie
Seidene Taschentücher, Halstücher, Shawls etc.
Fazzoletti, ciarpe, scialli, ed altri di seta

- 2 BROUGH, NICHOLSON, & Co., Leek, Staffordshire
Sewing silks, twists, silk bindings, &c.
Soies à coudre, cordonnets, galons de soie, etc.
Nähseide, seidene Schnur, Borten etc.
Seta da cucire, torta, e nastri di seta

- 3 CARR, THOMAS, & Co., 8 Fountain-street, Leek
Machine twists, sewing silks, thrown silks, bindings, silk cloth for waterproofing, braids, trimmings, &c.

Cordonnets, soies à coudre, soies moulînées, galons de soie, tissus de soie pour vêtements imperméables, lacets, etc.

Maschinenschnur, Nähseide, Kettenseide, Borten, Seidenzeuge, um Kleider wasserdicht zu machen, Bändchen, Besatz etc.

Sete torte a macchina, sete da cucire, organzini, nastri, tessuto di seta per impermeabili, passamano, guarnizioni, ecc.

- 4 HANDS, SON, & Co., Burges, Coventry

Dyed skein silk

Soie teinte en écheveaux

Gefärbte Seide in Strängen

Seta tinta in matassa

- 5 HOWE, JOSEPH, & Co., Spon-street, Coventry

Dyed skein silk—*Soie teinte en écheveaux*

Gefärbte Seide in Strängen

Seta tinta in matassa

- 6 LISTER & Co., Wellington Mills, Halifax

(Appendix, p. 115)

Silk waste products

Produits de déchets de soie

Produkte von Seidenabfällen

Prodotti di filaticcio

- 7 MASON, GEORGE, Manor House, Yately,

Farnborough

Raw silk grown in England

*Soies grèges, provenant de vers à soie élevés en**Angleterre*

Rohe Seide in England gebaut

Seta cruda prodotta in Inghilterra

Silk Manufactures.

Tissus de Soie.

Seidenwaaren.

Manifatture di Seta.

- 8 CARTER & PHILLIPS, Coventry

Silk ribbons—*Rubans de soie*Seidene Bänder—*Nastri di seta*

- 9 CHADWICK, JOHN, 12A Mosley-street, Manchester

Silk manufactures by power-loom

Tissus de soie fabriqués à la mécanique

Maschin-Seidenwaaren

Manifatture di seta fatte a telaio meccanico

- 10 CLABBURN, SONS, & CRISP, Norwich, and 145 Cheapside, London

Shawls, paramattas, and fabrics for dresses

Châles, paramattas, et tissus pour robes

Shawls, Paramattas, Seidenzeuge für Kleider

Scialli, paramattas, e tessuti per abiti

- 11 COURTAULD, S. & Co., 19 Aldermanbury, London

Crapes and aérophanes

Crêpes et aérophanes

Seidenkreppflor und Aerophanes

Crespi e aerofani

- 12 THE COVENTRY ELASTIC WEAVING COMPANY (Limited), Upper Wheatley-street Mill, Coventry

Elastic webs—*Tissus élastiques*Elastische Gewebe—*Cigne a spina elastiche*

- 12A DAUGARS, REV. G. G.,** Clarendon House,
St. John's Wood Park, London
Patterns of silks manufactured exclusively by
descendants of French Huguenots in Spital-
fields
*Echantillons de soieries fabriquées à Spital-
fields exclusivement par les descendants des
Huguenots*
Muster von Seidenwaaren, ausschliesslich von
den Abkömmlingen der französischen Hugen-
notten in Spitalfields fabricirt
*Campioni di seta fabbricata a Spitalfields escl-
usivamente dai discendenti degli Ogonotti*
- 13 EVANS, D., & Co.,** 1 Wood-street, London
Fancy silk goods
Tissus de soie façonnés
Seidene Modewaaren
Tessuti di lusso in seta
- 14 *FARMER & ROGERS,** Regent-street, London
Silks, cloaks, &c.
Soies, mantelets, etc.
Seiden, Mäntel etc.
Seta, mantelli, ecc.
- 15 GRANT & GASK,** 58 Oxford-street, London
Tissue de verre
Tissu de verre
Tissu de verre
Tissu de verre
- 16 GROUT & Co.,** 12 Foster-lane, London
Black and coloured crapes
Crêpes noires et de couleur
Schwarzer und bunter Seidenkreppflor
Crespi neri e colorati
- 17 FRANKLIN, WILLIAM, & SON,** Bailey-lane,
Coventry
Ribbons—*Rubans de soie*
Bänder—*Nastri*
- 18 FRY, WILLIAM, & Co.** (see Class 15, No. 4)
Irish poplins—*Popelines d'Irlande*
Irländische Papeline—*Popline irlandesi*
- 19 HALL & UDALL,** Manchester and Oldham
Silk velvets, &c.
Velours de soie, etc.
Seidensammete etc.
Velluti in seta, ecc.
- 20 HART, JAMES,** Earl-street, Coventry
Ribbons—*Rubans de soie*
Bänder—*Nastri*
- 21 HODGES, T. W., & SONS,** Brown-street
Mills, Leicester
Elastic webs
Tissus élastiques
Elastische Gewebe
Cigne a spina elastiche
- 22 HOLME, GEORGE,** Bath-street Mills, Derby
(Appendix, p. 114)
Elastic fabrics for boots and shoes
Tissus élastiques pour chaussures
Elastische Gewebe für Stiefeln und Schuhe
Tessuti elastici per stivali e scarpe
- 23 KAY & RICHARDSON,** 38 Faulkner-street,
Manchester
Silk crapes—*Crêpes de soie*
Seidenkreppflor—*Crespi di seta*
- 24 *KEMP, STONE, & Co.,** 34 Spital-square,
London
Broad silks—*Soies, grandes largeurs*
Feine Seidenwaaren—*Organzini*
- 25 KESSELMAYER & MELLODEW,** 1 Peter-street,
Manchester
Silk velvets and plushes
Velours et peluches de soie
Seidensammete und Plüshe
Velluti e felpa di seta
- 26 THE NORWICH CRAPE COMPANY (Limited),**
St. Augustine's-street, Norwich
Black silk crape
Crêpe de soie noire
Schwarzer Seidenkreppflor
Crespo nero di seta
- 27 PEEL, GREENHALGH, & Co.,** Bury
Velvets and fustians—*Velours et futaines*
Sammete und Barchente—*Velluti e fustagne*
- 28 PIM BROTHERS & Co.,** William-st., Dublin
Irish poplins
Popelines d'Irlande
Irländische Papeline
Popline irlandesi
- 29 POSSELT, E., & Co.,** City-road Mill, Derby,
and 52 Rue Réaumur, Paris
Elastic webs for boots and shoes
Tissus élastiques pour chaussures
Elastische Gummizüge für Stiefeln und
Schuhe
Cigne a spina per stivali e scarpe
- 29A SEAMER, TH., & SON,** 5 Milk-street, Cheap-
side, London
Silk and velvet—*Soies et velours*
Seidenwaaren und Sammete—*Sete e velluti*
- 30 SHIERS, RICHARD, & SON,** Medlock Mills,
Oldham
Velvets—*Velours de soie*
Sammete—*Velluti*
- 31 SLATER, BUCKINGHAM, & Co.,** 35 Wood-
street, London
Scarfs, cravats, &c.
Echarpes, cravates, etc.
Schärpen, Halstücher etc.
Ciarpi, cravatte, ecc.
- 32 TAYLOR & STOKES,** 45 Friday-street, Cheap-
side, London
Silk, satins, moirés antiques, velvets, &c.
Soies, satins, moires antiques, velours, etc.
Seidewaaren, Atlas, moires antiques, Sammete
etc.
Seta, raso, moirés antiques, velluti, ecc.
- 33 TURNER, BARRS, & TOOKEY,** Clarence-st.,
Hulme, Manchester
Elastic boot-gusset webs
Tissus élastiques pour chaussures
Elastische Zwickel für Stiefeln
Tessuto elastico a spina per stivaletti

34 VILLY, P. J., & Co., 55 Cannon-street,
Manchester
Silk and cotton velvets
Velours de soie et de coton
Seidene und baumwollene Sammete
Velluti di seta e cotone

35 WANKLYN, WILLIAM, 23 Fountain-street,
Manchester
Thrown silk, silk handkerchiefs, dresses, &c.
Soies moulignées, foulards, robes de soie, etc.
Kettenseide, seidene Taschentücher, Kleider
Organzini, fazzoletti di seta, abiti, ecc.

36 WILLETT, EDWARD, NEPHEW, & Co., Nor-
wich, and 63 Friday-street, London
Textile fabrics made of silk, silk and worsted
Tissus de soie, de soie et laine peignée,
Stoffe aus Seide, Seide und Wolle
Tessuti di seta, di seta e stame

CLASS XXXII.

Shawls.

Châles.

Shawle.

Scialli.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

*(Vedasi il sistema di classificazione, p. xviii.)*COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.Right Hon. Sir Stafford H. Northcote, Bart. C.B.
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Right Hon. George J. Goschen, M.P.

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PREISRICHTER—GIURATO.

W. H. Clabburn, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

F. P. Hoare, Esq.

1 BRIGG & SONS, Leeds

Shawls—*Châles*Shawle—*Scialli*

1A BLISS, W., & SON (see Class 30)

Shawls—*Châles*Shawle—*Scialli*2 HITCHCOCK, WILLIAMS, & Co., 72 St. Paul's
Churchyard, London

Woollen tartan shawls, and piece-goods

Châles de laine tartans et tissus de laine tartans
Wollene gewürfelte Shawls und Stückwaaren
Scialli di lana detti tartan e panni in pezze

3 KERR, SCOTT, & Co., 8 Cannon-street, London
Shawls, woollen tartans, &c.

*Châles, tartans de laine, etc.*Shawle, wollene gewürfelte Umschlagetücher
etc.*Scialli, quadrigliati scozzesi detti tartan, ecc.*

4 SMITH, G. & A., 108 South Bridge, Edinburgh
Tartan and woollen long and square shawls

*Châles tartans, châles de laine*Gewürfelte bunte und lange, sowie quad-
ratische wollene Shawle*Quadrigliati scozzesi detti tartan e scialli di*
lana lunghi e quadrati

CLASS XXXIII.

Lace, Net, Embroidery, and Small
Ware Manufactures.*Dentelles, Tulles, Broderies, et Passe-*
*menteries.*Spitzen, Netze, Stickereien und Posa-
mentirwaaren.*Trine, Tulle, Ricami e altre piccole*
Manifatture

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

*(Vedasi il sistema di classificazione, p. xviii.)*COMMITTEE—COMITÉ
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Henry Ashworth, Esq.

Thomas Bazley, Esq. M.P.

Somerset A. Beaumont, Esq.

Daniel Biddle, Esq.

A. Blackborne, Esq.

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John Lytle, Esq.

Darnton Lupton, Esq.

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William Osborne, Esq.

Henry W. Ripley, Esq.

Richard Russell, Esq.

William Scholefield, Esq. M.P.

George F. Urling, Esq.

Harry Walker, Esq.

G. F. Duncombe, Esq. *Secretary.*

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

Daniel Biddle, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Thomas Ball, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 ALDERSON, MRS., 17 Berkeley-square, London
Lace made by several ladies

Dentelle fabriquée par plusieurs dames

- Spitzen, von verschiedenen Damen gemacht
Trine fatte da diverse signore
- 1A ADAMS, THOMAS, & Co. (Limited) (see Class 15)
- 2 ALLEN, CHARLES, 108 Grafton-street, Dublin
Irish point lace
Guipures d'Irlande
Irländische Klöppelspitzen
Punta d'Irlanda
- 3 ALLEN, JEMIMA CATHERINE, 46 London-st., Greenwich
Lace—*Dentelles*
Spitzen—*Trine*
- 4 BARNETT & MALTRY, Stoney-st., Nottingham
Lace—*Dentelles*
Spitzen—*Trine*
- 5 BIDDLE, DANIEL (HAYWARDS), 81 Oxford-street, London
Hand-made lace
Dentelles brodées à la main
Spitzen mit der Hand gemacht
Trine fatte a mano
- 6 *BLENCORE, AGNES, Wisbeach
Ecclesiastical embroidery (see Architectural Court)
Broderies ecclésiastiques (voir la Salle d'Architecture)
Stickereien zum kirchlichen Gebrauch
Ricami da chiesa (vedasi Compartimento d'Architettura)
- 7 COPESTAKE, MOORE, CRAMPTON, & Co., 5 Bow Churchyard, London
Lace and muslin
Dentelles et mousselines
Spitzen und Mousselin
Trine e mussoline
- 8 DAVIES & Co., 103 St. Martin's-lane
Army laces, braids, cords, fringes, &c.
Passenterie pour l'équipement militaire
Tressen für das Militär, Besatz, Schnüre und Fransen etc.
Galloni da uniformi, passamani, cordoni, e frange
- 9 DUNNICLIFF & SMITH, Stoney-st., Nottingham
Lace—*Dentelles*
Spitzen—*Trine*
- 10 *HAMEL, LEOPOLD, Stoney-street, Nottingham
Lace or lace trimmings
Dentelles, garnitures
Spitzen, oder Spitzenbesatz
Trine e guarnizioni di trina
- 10A HAILSTONE, H. L. S., Horton-hall, Bradford
Lace—*Dentelle*
Spitzen—*Trine*
- 11 HARTSHORN, JAMES, 20 Stoney-street, Nottingham
Lace—*Dentelles*
Spitzen—*Trine*
- 12 HAYMAN, MRS., Sidmouth, Devon
Lace—*Dentelle*
Spitzen—*Trine*
- 13 HELBRONNER, R., 265 Regent-street, London
Embroidery and silk and woollen stuffs for hangings, &c., for ecclesiastical and other purposes
Broderies et tissus de soie et laine pour draperies, etc., pour les églises et pour ameublement
Stickereien und seidene und wollene Stoffe für Vorhänge u. s. w. für kirchlichen und andern Gebrauch
Ricami e roba di seta e di lana per tappezzeria, ecc., per uso delle chiese, ecc.
- 14 HEYMANN & ALEXANDER, Stoney-street, Nottingham
Lace curtains, toilets, &c.
Rideaux guipure et tulle, dossiers de fauteuils, tulle unis, dentelles imitation, etc.
Spitzenvorhänge, Spizentoiletentücher etc.
Cortine, toilette, ecc., di trina
- 15 *THE INDUSTRIAL DEPOSITORY, 76 Grafton-street, Dublin
Irish lace—*Dentelle d'Irlande*
Irländische Spitzen—*Trine d'Irlanda*
- 16 JACOBY, M., & Co., Broadway, Nottingham
Lace—*Dentelle*
Spitzen—*Trine*
- 17 JONES, MARY JANE (at Mrs. Gwyn Jeffreys), 25 Devonshire-place, Portland-place, London
Lace worked by the needle
Dentelle faite à l'aiguille
Mit der Nadel gearbeitete Spitzen
Trine lavorate ad ago
- 18 LESTER, T., & SONS, High-street, Bedford
Pillow lace of various kinds
Dentelles faites à la main
Allerlei Spitzen für Kissen
Trine fatte al tombolo di varie specie
- 19 MACLEAN, LIZZIE, Benmore, Enniskillen
Real point and guipure laces
Dentelles en point d'Angleterre et guipures
Echte Klöppelspitzen und Guipure-Spitzen
Punta di trina buona, e ghipur
- 20 *MALLET, HENRY, St. Mary's-gate, Nottingham
Lace—*Dentelle*
Spitzen—*Trina*
- 21 MANCINI, ELIZABETH BROWNE, 13 William-street, Newry
Petits Gobelins tapestry
Tapisserie, imitation des Gobelins
Gobelintapisserie
Tappezzeria imitazione dei Gobelins
- 22 *MANLY, GEORGE N., 35 Markham-square, Chelsea, London
Lace—*Dentelles*
Spitzen—*Trine*
- 23 *O'CONNELL, MRS. A., 14 St. Aubyn's-road, Upper Norwood
Irish lace
Dentelle irlandaise
Irländische Spitze
Trina irlandese

24 PACKER, MANLOVE, & Co., Nottingham
Patent pile fabrics and general lace goods
Tissus de pile brevetés, dentelles, etc.
Patentirte Pile-Fabricate und Spitzen im Allgemeinen
Tessuti a pelo, e lavori di trina in generale
(*patentati*)

26 POWELL & CREE, 52 Wood-street, London
Trimmings
Garnitures
Besatz
Guarnizioni

27 RADFORD, MISS, 2 New-st., Sidmouth, Devon
Honiton lace
Dentelle de Honiton
Honiton-Spitzen
Trine di Honiton

27A SMITH, FRANK & Co., 13 Southampton-street, Strand, London
Embroidering for church work
Ornements d'église brodés
Stickereien für Kirchen
Ricamo ecclesiastico

28 SMITH, MRS. M., 30 St. Aubyn's-road, Upper Norwood
Irish point lace
Dentelle point d'Irlande
Irländische Klöppelspitzen
Panta d'Irlanda

28A SOUTHEY, EMMA, Lisbon-cottage, Weybridge
Specimens of crochet work
Broderies au crochet
Muster von Häkelarbeit
Campioni di ricami fatti a crocchetto

29 STEEGMANN, EDWARD, & Co., Plumtree-street, Nottingham
Lace curtains and patent fabrics
Rideaux de dentelle, et tissus brevetés
Spitzenvorhänge und patentirte Fabricate
Cortine di trina, e tessuti patentati

30 STUART, J. & W., Musselburgh
Net—*Tulle*
Tulle—*Tulle*

31 TREADWIN, CHARLOTTE ELIZABETH, Cathedral-yard, Exeter
Lace
Dentelle
Spitzen
Trine

32 *VICKERS, WILLIAM, JUN., Week-day Cross, Nottingham
Shawls, mantles, &c., in imitation of lace
Châles et mantelets de dentelles en imitation
Shawle, Mäntel etc. in nachgemachter Spitze
Scialli, mantelli, ecc., imitazioni di trina

33 WATERS, J. & E., & Co. (see Class 27)
Small-wares
Passementeries
Posamentierwaaren
Passamani

CLASS XXXIV.

Hosiery and Underclothing, and Articles appertaining thereto.
Articles de Bonneterie et de Lingerie; Objets accessoires du Vêtement.
Strumpfwaaren, fertige Wäsche und andere hierher gehörige Artikel.
Calzetteria, Biancheria, ed altri Oggetti d'Abbigliamento.

(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)
(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

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Wright Mellor, Esq.
Samuel Morley, Esq.
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Harry Walker, Esq.

G. F. Duncombe, Esq. *Secretary.*

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A. J. Mundella, Esq.

ASSOCIATE—ASSOCIÉ HULFSPREISRICHTER—ASSOCIATO.

G. Wallis, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1A BINGLEY & DE BECKER, N., 77 George-street, Manchester-square, London
Umbrellas and parasols
Parapluies et ombrelles
Regen- und Sonnenschirme
Paracqua e parasoli

1 COLES, WILLIAM FLETCHER, 32 Fore-street, London
Cork socks, fleecy hosiery, &c.
Semelles de liège, bonneterie de laine, etc.
Korksohlen, wollige Strumpfwaaren etc.
Solette di sughero, calzetteria vellosa, ecc.

- 3 *HAWTHORN, BENJAMIN, 6 Chrissell-road,
North Brixton, Surrey
Cork socks or inner soles for boots and shoes
Semelles de liège
Corksohlen für Stiefeln und Schuhe
Solette di sughero, o solette interne per stivali e scarpe
- 4 JOWETT, JOHN, 48 Conduit-street, London,
and 1 Cité d'Alma, Avenue Rapp, Paris
Hosiery, shirts, cravats, gloves
Bonneterie, chemises, cravates, gants
Strumpfwaaaren, Hemden, Cravaten, Handschuhe
Calzetteria, camicie, cravatte, guanti
- 5 LANE, THOMAS, & Co., Aldersgate-street, London
Corsets, collars, cuffs, shirts, &c., specially prepared for India
Corsets, cols, manchettes, chemises, etc., confectionnés spécialement pour les Indes
Corsette, Kragen, Manschetten, Hemden etc.
Busti, colletti, manichetti, camicie, ecc.
- 6 MARTIN, WILLIAM HENRY, 64 Burlington-arcade, London
Umbrellas, parasols, and walking sticks
Parapluies, ombrelles, cannes
Regenschirme, Sonnenschirme und Stöcke
Paracqua, parasolli, e mazze
- 7 MCINTYRE, HOGG, & BUCHANAN, 9 Addle-street, Wood-street, London
Shirts, collars, ladies' underclothing
Chemises, cols, lingerie confectionnée pour dames
Hemden, Kragen, Unterkleider für Damen
Camicie, colletti, e biancheria da donna
- 8 THE NOTTINGHAM MANUFACTURING COMPANY, Nottingham
Hosiery
Bonneterie
Strumpfwaaaren
Calzetteria
- 9 PENTONY, HENRY, 15 Bridgewater-square, London
Braces
Bretelles
Hosenträger
Cigne
- 10 PLANT, B., & Co., Wellington-st., Leicester
Fancy hosiery
Objets de bonneterie
Modestrumpfwaaaren
Calzetteria di lusso
- 11 SMYTH & Co., Balbriggan, and 36 Lower Abbey-street, Dublin
Balbriggan hosiery
Bonneterie dite de Balbriggan
Strumpfwaaaren, genannt Balbriggan
Calzetteria detta di Balbriggan
- 12 SWEARS & WELLS, 192 Regent-st., London
Hosiery and gloves
Bonneterie et gants
Strumpfwaaaren und Handschuhe
Calzetteria e guanti

- 13 SWEETMAN, CATHERINE, 62 Arlington-street, Mornington-crescent, London
Outfitting
Lingerie confectionnée
Unterkleider
Vestiture
- 14 *SYKES & Co., 280 Regent-street, London
Corsets and belts
Corsets, ceintures
Corsette und Gürtel
Busti e cintura

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidungsstücke für beide Geschlechter.

Abbigliamento per ambo i Sessi.

- (For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)
(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

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S. Hickson, Esq.
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Darnton Lupton, Esq.
John Lytle, Esq.
J. Medwin, Esq.
Wright Mellor, Esq.
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Donald Nicoll, Esq.
H. G. Poole, Esq.
Henry W. Ripley, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Harry Walker, Esq.

G. F. Duncombe, Esq. *Secretary*.JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Lieut.-Col. Hudson.

ASSOCIATE—ASSOCIÉ
HULFSPREISRICHTER—ASSOCIATO.

G. Wallis, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ASHTON, JOSEPH, & SONS, 54 Cornwall-road, Waterloo Bridge, London, s.
Hats
Chapeaux
Hüte
Cappelli

- 2 CARLES BROTHERS, 38 New Bond-street, London
Wigs, scalps, head-dresses, and perukes
Perruques, toupets, et coiffures
Perrücken, Coiffuren etc.
Parrucconi, perrucchini, pettinature e perrucche
 - 3 CHRISTY & Co., 35 Gracechurch-st., London
Hats
Chapeaux
Hüte
Cappelli
 - 4 CRAIG, CHRISTIE, & Co., 23 Potter-row, Edinburgh
Hats
Chapeaux
Hüte
Cappelli
 - 5 DOUGLAS, REYBURN, & Co., Kilmarnock
Scotch caps
Bonnets écossais
Schottische Mützen
Berrette scozzesi
 - 6 GAUNT & POULTER, 9 Love-lane, Wood-street, London
Caps, hats, Scotch bonnets
Casquettes, chapeaux, bonnets écossais
Mützen, Hüte und Schottische Mützen
Berrette, cappelli, berrette scozzesi
 - 7 GRAY, ELIZA MARIA, 44 Ebury-st., Pimlico, London
Flowers made of human hair
Fleurs artificielles en cheveux
Blumen aus Menschenhaar
Fiori fatti di capelli umani
 - 8 HALL, ROBERT & SAMUEL, 130 London-wall, London
Hats
Chapeaux
Hüte
Cappelli
 - 9 HERMANN, AUGUSTUS, 9 Hemmings-row, Trafalgar-square, London
Hair-work
Ouvrage en cheveux
Haararbeit
Lavori in capelli
 - 10 MELTON, HENRY, 194 Regent-street, London
Hats—*Chapeaux*
Hüte—*Cappelli*
 - 10A MOLE, CHARLES, 2 Farringdon-road, London
Patent boot-heels
Talons de bottes, brevetés
Patentirte Stiefelabsätze
Tacci da stivali, patentati
 - 11 MUNT, BROWN, & Co., 85 Wood-street, London, and York-street, Manchester
Straw hats and plaits
Chapeaux de paille, et tresses de paille
Strohhüte und Flechten
Cappelli e trecce di paglia
 - 12 SILVER, S. W., & Co., Cornhill, Bishopsgate, and Limehouse, London
Clothing for home and colonial use
Vêtements spéciaux pour les colonies, etc.
Anzüge für verschiedene Climate
Abbigliamento da usarsi in paese o nelle colonie
 - 13 TAIT & Co., Southwark-street, London; Limerick and Leeds
Military and naval uniforms
Habillement des troupes et de la marine militaire
Uniformen für das Militair und die Marine
Abiti dei servizi militare e navale
 - 14 TRESS & Co., 27 Blackfriars-road, London
Silk and felt hats, and patent helmets
Chapeaux de soie et de feutre, et casques brevetés
Seiden- und Filzhüte, und patentirte Helme
Cappelli di seta e di feltro, e elmi patentati
 - 15 VYSE, SONS, & Co., 76 Wood-street, London
Straw hats and bonnets, and straw plaits
Chapeaux de paille et coiffures de dames, tresses de paille
Strohhüte für Herren und Damen und Strohgeflechte
Cappelli da uomo e da donna, trecce di paglia
 - 16 WARNE, WILLIAM, & Co., 9 Gresham-street, London
India-rubber waterproof clothing, &c.
Vêtements imperméables en caoutchouc, etc.
Wasserdichte Kleider etc. aus Caoutchouc
Vesti impermeabili in gomma elastica
 - 17 WELCH & SONS, 44 Gutter-lane, Cheap-side, London, and 42 Rue des Jeuneurs, Paris
Straw hats and bonnets
Chapeaux de paille et coiffures de dames
Herren- und Damenhüte aus Stroh
Cappelli di paglia da uomo e da donna
 - 18 WILSON, WILLIAM, & Co., Newcastle-on-Tyne
Felt hats and hatters' furs
Chapeaux de feutre et fourrures de chapeliers
Filzhüte, und Pelze für Hutmacher
Cappelli di feltro e pellicce da cappellai
-
- Boots and Shoes.
Bottes et Souliers.
Stiefeln und Schuhe.
Stivali e Scarpe.
- 19 ATLOFF & NORMAN, 69 New Bond-street, London
Boots and shoes
Bottes, bottines, souliers
Stiefeln und Schuhe
Stivali e scarpe

- 20** *BAXTER, RICHARD, St. James's Green, Thirsk, N.B.
Cricket and other boots
Bottes, et bottines spéciales pour le jeu de crosse
Stiefeln, Schuhe für das Cricketspiel (Ball-schlag)
Stivali pel gioco di cricket e altri
- 21** BOWLEY & Co., 53 Charing-cross, London
Boots, spurs
Bottes, éperons
Stiefeln und Sporen
Stivali, sproni
- 22** BROWNING, ELIJAH, 56 Fetter-lane, London
Boots
Bottes
Stiefeln
Stivali
- 23** CARLETON, RICHARD, 38 Westmoreland-street, and 33 Castle-street, Dublin
Boots
Bottes
Stiefeln
Stivali
- 24** COURTENAY, JOSEPH D., High-st., Salisbury
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 25** CREAK JAMES, 18 Church-street, Wisbeach
Boots
Bottes
Stiefeln
Stivali
- 26** CREMER & Co., 4 Old Bond-street, London
Shooting boots
Bottines de chasse
Jagdstiefeln
Stivali da caccia
- 27** EAST, SAMUEL, 103 Fore-street, Exeter
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 28** GLEW, JOHN HENRY, 19 Howland-street, Fitzroy-square, London
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Scarpe e stivali
- 29** HALL, W. SPARKES, & Co., 310 Regent-st., London (Appendix, p. 117)
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 30** *HALL, JOHN, 2 Mount-terrace, Westminster-road, London
Boots
Bottes
Stiefeln
Stivali
- 31** HALL, JOSEPH SPARKES, 308 Regent-street, London (Appendix, p. 116)
Elastic boots
Chaussures élastiques
Elastische Stiefeln
Stivali elastici
- 32** HICKSON, WILLIAM, & Sons, 20 West Smith-field, London
Boots and shoes, &c.
Bottes, souliers, etc.
Stiefeln und Schuhe etc.
Stivali e scarpe
- 33** HUDSON, ALFRED, Stone-street, Cranbrook, Kent
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 34** *HUTCHINGS, JAMES JOHN, 10 Abinger-road, Deptford
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 35** LEWIS, LEONARD, 128 High-st., Lymington
Boots
Bottes
Stiefeln
Stivali
- 36** LOBB, JOHN, 296 Regent-street, London
Boots—*Bottes*
Stiefeln—*Stivali*
- 37** *MASON, S., Wood-street, Northampton
Boots and lasts
Bottes et formes
Stiefeln und Leisten
Stivali e forme
- 38** NORMAN, SAMUEL WILLS, 116 Westminster-bridge-road, London
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 39** PEAL & Co., 11 Duke-street, Grosvenor-square, London
Waterproof boots
Bottes imperméables
Wasserdichte Stiefeln
Stivali impermeabili
- 40** PLAYER, GEORGE, 21 George-street, Euston-road, London
Boots and shoes
Bottes et souliers
Stiefeln und Schuhe
Stivali e scarpe
- 41** *ROBERT, AUGUSTE, 26 Change-alley, Cornhill, London
Boots—*Bottes*
Stiefeln—*Stivali*

42 *SCARD, ANTHONY, 8 Bow-lane, Cheapside, London
Specimens of bootmaking
Spécimens de chaussures
Proben von Schuhmacherarbeit
Saggi di calzoleria

2 BROGDEN, JOHN, 16 Henrietta-street, Covent-garden, London
Jewellery
Bijouterie
Geschmeide
Gioie

3 *BRYAN, CHARLES, Mulgrave-place, West Cliff, Whitby
Jet ornaments
Objets faits de jais
Gegenstände aus Agat
Ornamenti di giavazza

4 *BUTLER & Co., 13 St. James-street, London
Gold and silver pencil-cases, card-cases, etc.
Porte-crayons, étuis à cartes de visite, etc., en or et argent
Goldene und silberne Bleistifthalter, Karte-Etuis etc.
Matitatoi d'oro e d'argento, buste da carte, ecc.

5 CROUCH & SONS, Edinburgh
Pebble jewellery
Bijouterie de pierres dures
Geschmeide aus Kiesel
Gioie in pietra dura

5A DIXON, JAMES, & SON, Sheffield
Britannia metal goods
Objets en métal britannia
Gegenstände in Britannia-Metall
Oggetti in metallo britannico

6 *DONNE, WILLIAM, & SONS, 51 Cheapside, London
Gold and silver engraving
Orfèvrerie d'or et d'argent gravé
Gravirungen in Gold und Silber
Incisione in oro e argento.

8 ELKINGTON & Co., 22 Regent-street, London
Gold and silver plate; the International Volunteer Challenge Trophy (the property of the United Kingdom for annual rifle competition)
Orfèvrerie d'or et d'argent; prix du Concours International de Tir des Volontaires (ce prix, qui a la forme d'un bouclier, est la propriété du Royaume-Uni, et est offert pour le concours annuel)

Gold- und Silbergeschirr; der Schützenpreis der Freiwilligen aller Nationen (das Eigentum des Vereinigten Königreichs für das jährliche Schützenfest)
Oggetti d'oro e d'argento; Premio di Sfida Internazionale dei Volontari (proprietà del Regno Unito per concorso annuo al tiro)

9 EMANUEL, HARRY, 18 New Bond-st., London
Jewellery and silver plate
Bijouterie et orfèvrerie
Juwelen und Silbergeschirr
Gioie e argenteria

CLASSES XXXVI. and XXI.

Gold and Silver Plate, Jewellery, Precious Stones, &c.

Orfèvrerie, Joaillerie et Bijouterie.

Gold- und Silbergeschirr, Geschmeide, Edelsteine etc.

Oggetti d' Oro e d' Argento, Gioie, Pietre Preziose, ecc.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

Earl Dudley
Lord Stanley, M.P.
Right Hon. Sir Stafford H. Northcote, Bart. C.B.
M.P.
Sir C. Wentworth Dilke, Bart. M.P.
Edgar A. Bowring, Esq. C.B.
John Brown, Esq. Master Cutler of Sheffield
E. Z. Dresden, Esq.
S. Garrard, Esq.
William Hawes, Esq.
Michael D. Hollins, Esq.
A. J. B. Beresford Hope, Esq. M.P.
Wright Mellor, Esq.
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N. M. de Rothschild, Esq. M.P.
William Scholefield, Esq. M.P.
Grant H. Tod-Heatley, Esq.
R. H. Soden Smith, Esq. Secretary.

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Earl Dudley
Percy W. Doyle, Esq., C.B.

ASSOCIATES—ASSOCIÉS HÜLFSPREISRICHTER—ASSOCIATI.

N. H. M. S. Maskelyne, Esq.
G. J. Cayley, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BENSON, J. W. (see Class 23)
Jewellery—*Bijouterie*
Geschmeide—*Gioie*

- 10 *GREGORY, JAMES R., 15 Russell-st., Covent-garden, London
Precious stones—*Pierres fines*
Edelsteine—*Pietre preziose*
- 11 HANCOCK, C. F., SON, & Co., 38 Bruton-street, & 152 New Bond-street, London
Jewellery and works of art in gold and silver
Bijouterie et objets d'art en or et en argent
Juwelen und Kunstgegenstände in Gold und Silber
Gioie e lavori d'arte in oro e in argento
- 12 HARDMAN & Co., Newhall-hill, Birmingham
Ecclesiastical metal plate work (see Architectural Court)
Orfèvrerie ecclésiastique (voir la Salle d'Architecture)
Metallene Kirchengefäße (siehe architectonische Abtheilung)
Lavori ecclesiastici in metallo argentato (vedasi Compartimento d'Architettura)
- 13 *HOLLIDAY, W., 14 Nailour-street, Islington, London
Silver work (see Architectural Court)
Orfèvrerie d'argent (voir la Salle d'Architecture)
Gegenstände in Silber (siehe architectonische Abtheilung)
Argentaria (vedasi Compartimento d'Architettura)
- 14 HOWELL, JAMES, & Co., 5 Regent-st., London
Jewellery, dressing-cases, clocks, watches, artistic works in ormolu, etc.
Bijouterie, nécessaires, pendules, montres, objets d'art en or moulu, etc.
Geschmeide, Toilettenkästchen, Stutz-Wand- und Taschenuhren, kunstreiche Arbeit in Ormolu etc.
Gioie, cassette da toiletta, orologi, orioli, lavori d'arte in metallo dorato
- 15 HUNT & ROSKELL, 156 New Bond-st., London
Works of art in silver
Objets d'art en argent
Kunstgegenstände in Silber
Lavori d'arte in argento
- 16 JACOB, A., & Co., 11 Ely-place, Holborn, London
Gilt jewellery—*Bijouterie dorée*
Vergoldete Gegenstände—*Bijouterie dorati*
- 17 *LOWE, FREDERICK, 13 Wilderness-row, London
Transparent and opaque enamels (see Architectural Court)
Emaux transparents et opaques (voir la Salle d'Architecture)
Durchsichtige und andurchsichtige Emailen (siehe architectonische Abtheilung)
Smalti trasparenti ed opachi (vedasi Compartimento d'Architettura)
- 18 *LUND, WALDEMAR, & Co., 60 Chandos-street, Charing-cross, London
Aureburnean jewellery, &c.
Bijouterie d'or et d'ivoire, etc.
Geschmeide aus Gold und Elfenbein etc.
Gioielli aureoeburnee, ecc.
- 19 MAPPIN, WEBB, & Co., Royal Cutlery Works, Sheffield
Plate and fine cutlery
Orfèvrerie et coutellerie de luxe
Goldene und silberne Gegenstände
Argenterie e coltellerie fini
- 20 *MARSHALL, W., & Co., 24 & 25 Princes-street, Edinburgh
Jewellery—*Bijouterie*
Juwelen—*Gioie*
- 21 NEAL, JOHN, 18 Edgware-road, London
Jewellery, silver-work, &c.
Bijouterie, objets en argent, etc.
Juwelen, Gegenstände in Silber etc.
Gioie, lavori in argento, ecc.
- 22 *NEWWEY, THOMAS, 10 Parade, Birmingham
Gold and silver pencil-cases, &c.
Porte-crayons et autres objets d'or et d'argent
Goldene und silberne Bleistifthalter etc.
Matitatoi d'oro e d'argento
- 25 PHILLIPS, 23 Cockspur-street, London
Jewellery—*Bijouterie*
Juwelen—*Gioie*
- 26 *RANDEL, W. & J., 50 Vittoria-street, Birmingham
Jewellery and chain-work
Bijouterie et objets de chaînes
Juwelen und Kettenarbeit
Gioie e lavori in catene
- 27 SHAW & FISHER, 43 Suffolk-road, Sheffield
Electro-plate and Britannia metal
Orfèvrerie argentée par la galvanoplastie, objets en métal Britannia
Galvanisirte Gegenstände und Britannia-Metall (eine weisse Metall-Composition)
Argentature galvanoplastiche, e metallo detto 'Britannia'
- 27A SKIDMORE'S ART MANUFACTURES Co., Coventry
Gold and silver plate (see Architectural Court)
Orfèvrerie (voir la Salle d'Architecture)
Gold- und Silbergeschirr (siehe architectonische Abtheilung)
Vassellame d'oro e d'argento (vedasi Compartimento d'Architettura)
- 28 SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, John-street, Adelphi, London
The Swiney cup, designed by Daniel Maclise, R.A.; presented with gold coin in it to the amount of 100*l.*, every five years to the author of the best published treatise on Jurisprudence
La coupe Swiney (dessin de D. Maclise, R.A.); une coupe semblable, renfermant une somme de 100 livres sterling, est présentée tous les cinq ans à l'auteur qui ait publié le meilleur traité sur la Jurisprudence
Ein Preis, der 'Swiney cup' (Becker) genannt, von Daniel Maclise, von der Königl. Academie, entworfen. Dieser Becher wird jede fünf Jahre, Goldstücke zu dem Betrage von 100*l.* enthaltend, dem Verfasser der besten veröffentlichten Abhandlung über Jurisprudenz zuerkannt

La tazza detta Swiney (dal disegno di D. Maclise, R.A.). Questa tazza, col contenuto di 100 lire sterline, si regala ogni cinque anni all'autore del miglior trattato pubblicato sopra la giurisprudenza

29 *STAIGHT BROTHERS, 35 Charles-st., Hatton-garden, London

Imitation coral or coralline
Corail d'imitation, ou coralline
Coralline oder unechte Corallen
Imitazioni di corallo o corallina

30 THOMAS, W. J., 136 Oxford-street, London

Diamonds
Diamants
Diamanten
Diamanti

31 *TURNBULL BROTHERS, 51 Hatton-garden London

Jet ornaments
Bijoux de jais
Gagat-Ornamente
Ornamenti di giavazza

32 WATHERSTON & SON, 12 Pall Mall East London

Jewellery and silver plate
Bijouterie et argenterie
Juwelen und Silbergeschirr
Gioie e argenterie

33 WHEATLEY, JAMES, 65 English-street, Carlisle

Jewellery, silver plate, &c.
Bijouterie, orfèverie d'argent, etc.
Juwelen, Silbergeschirr etc.
Gioie-argenterie, ecc.

34 *WILEY, WILLIAM EDWARD, Albert Works, Graham-street, Birmingham

Pencil-cases, gold pens, &c.
Porte-crayons, plumes d'or, etc.
Bleistifthalter, goldene Federn etc.
Matitatoi, penne d'oro, ecc.

35 WILKINSON, T., & Co., 15 Great Hampton-street, Birmingham, and 41 Tavistock-street, Covent-garden, London

Electro-plate dinner and tea services, cake-baskets, knives, spoons, forks, &c.
Services de table, services à thé, corbeilles, etc., argentés par la galvanoplastie
Galvanisirte Tisch- und Theegeschirre, Kuchenkörbchen, Messer und Gabeln etc.
Serviti da pranzo e da tè, panierini da paste dolci, coltelli, cucchiari forchette, ecc., in metallo argentato alla galvano-plastica

**Racing Cups.—Prix de Course.
Wettrennen-Preise.—Premi da Corsa.**

Exhibitor Exposant Aussteller Espositore	Where won, and when Lieu et Année Wo gewonnen, und wann Il Luogo e l'Anno	Manufacturer Fabricant Fabricante
Angell, G. . .	Shrewsbury, 1864	—
" " .	Stockbridge, 1865	—
" " .	Ascot, 1866	—
Annesley, The Earl of	Goodwood, 1860	Garrard & Co., London
Blenkiron, W.	Newcastle, 1866	E. Emmanuel & Co., London
Brayley, E. .	Goodwood, 1865	London & Ryder, London
" " .	Warwick, 1865	E. Emmanuel & Co., London
" " .	Hereford, 1866	Hunt & Roskell, London
*Cartwright, W. S.	Bath, 1865	Garrard & Co., London
" " .	Ascot, 1865	Garrard & Co., London
" " .	Goodwood, 1865	Hunt & Roskell, London
" " .	Brighton, 1865	Hunt & Roskell, London
" " " Henry Chaplin	York, 1865	S. Smith, York.
" " " Henry Chaplin	Goodwood, 1866	Hancock, Son, & Co., London
Christie, Capt.	Ascot, 1860	Garrard & Co., London
" " .	Goodwood, 1862	Hancock, Son, & Co., London
Douglas, J. H.	Goodwood, 1857	Garrard & Co., London
Fisher, F. .	Goodwood, 1856	Hunt & Roskell, London
Gray, G. .	York, 1866	H. Preston, York.
" " .	Liverpool, 1864	Hancock, Son, & Co., London
Hodgman, G. .	Ascot, 1864	Hancock, Son, & Co., London
" " " Jackson, J.	Shrewsbury, 1866	Angell, London
" " " Jackson, J.	Ascot, 1862	Garrard & Co., London
" " " P'Anson, W.	York, 1864	J. Bell, York.
" " " Lafitte, C.	Goodwood, 1866	—
Lagrange, Comte de	Ascot, 1866	Garrard & Co., London
Lupin, Auguste	Goodwood, 1864	Garrard & Co., London
Masterman, T.	Stockton, 1865	E. Emmanuel & Co., London
Montgomery, A. de	Stockton, 1863	E. Emmanuel & Co., London
Naylor, R. C. .	Goodwood, 1863	Garrard & Co., London
" " .	Doncaster, 1863	Garrard & Co., London
" " .	(not stated) 1863	Garrard & Co., London
" " .	Yachting Race, 1863	Garrard & Co., London
Newcastle, The Duke of	Doncaster, 1866	—
Parr, T. .	Ascot, 1856	Garrard & Co., London
Sutton, R. .	Ascot, 1866	Garrard & Co., London
" " .	Bath, 1866	Hunt & Roskell, London
Townley, Col.	Doncaster, 1861	Hunt & Roskell, London
Zetland, The Earl of	Ascot, 1855	Garrard & Co., London

* All these cups were won by 'Ely.'
Tous ces prix ont été remportés par 'Ely.'
Alle diese Preise wurden von 'Ely' gewonnen.
Tutti questi premi si sono guadagnati da 'Ely.'

CLASS XXXVII.

Portable Weapons, including Objects for the Use of the Army.

Armes Portatives; Matériel et Equipages de Guerre.

Tragbare Waffen, einschliesslich Gegenstände für den Gebrauch des Militair.

Armi Portatili, e Oggetti per uso delle Armate.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

H.R.H. The Duke of Edinburgh, K.G. (*Chairman*)
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Colonel Dixon, R.A.

Major-General Hay

John Latham, Esq.

Brigadier-General Lefroy, R.A.

Westley Richards, Esq.

William Scholefield, Esq. M.P.

H. Hussey Vivian, Esq. M.P.

Captain T. P. Warlow, R.A.

Colonel Younghusband, R.A.

Captain Donnelly, R.E. *Secretary.*

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PREISRICHTER—GIURATO.

Major-General Sir W. Gordon, K.C.B., R.E.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Major-General C. Dickson, C.B., R.A.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 *ADAMS, ROBERT, 40 Pall Mall, London

Fire-arms—*Armes à feu*

Gewehre—*Armi da fuoco*

1A BIRMINGHAM SMALL ARMS COMPANY, Birmingham

Small arms—*Armes à feu*

Gewehre—*Armi da fuoco*

2 *BRAZIER, JOSEPH, The Ashes, Great Brick-kiln-street, Wolverhampton

Gun-locks—*Platines de fusils*

Flintenschlösser—*Acciarini da fucili*

3 *BURTON, BETHEL, & MILLAR, JOHN, Bethnal House, Cambridge-road, London, N.E.

A breech-loading rifle

Carabine se chargeant par la culasse

Büchsen, die von hinten geladen werden

Carabina da caricarsi dalla culatta

4 CLARKSON, T. C., 56 Stamford-street, Blackfriars-road, London

Various articles used in the Army and Navy
Matériel et equipages de guerre

Verschiedene Gegenstände, die von der Land- und Seemacht gebraucht werden

Vari oggetti d'uso dell'esercito e della marina

5 CLINTON, LORD ROBERT, 19 Hanover-street, Hanover-square, London
Military optical instrument
Instrument d'optique à usage militaire
Optisches Instrument zum militärischen Gebrauch

6 COLT'S PATENT FIRE-ARMS MANUFACTURING COMPANY, 14 Pall Mall, London

Breach-loading and revolving fire-arms

Armes à feu revolvers se chargeant par la culasse

Gewehre, die von hinten geladen werden und sich umdrehen

Armi da fuoco, revolvers, e da caricarsi dalla culatta

7 DOUGALL, JAMES D., 59 St. James's-street, London

Fire-arms and projectiles, &c.

Armes à feu, projectiles, etc.

Gewehre und Geschosse etc.

Armi da fuoco, proiettili ed altri

8 GIBBS, GEORGE, 29 Corn-street, Bristol

Rifles

Carabines rayées

Büchsen

Carabine

9 GREENER, WILLIAM, Rifle-hill Works, Birmingham

Guns on the principle of which he is the inventor

Fusils, d'un système dont il est l'inventeur

Gewehre, gegründet auf das Expansions-Prinzip

Fucili sul principio d'espansione

9A JONES, C. W., 7 Grosvenor-place, Cheltenham

Rifle—*Carabine rayée*

Flinte—*Carabina*

10 LANCASTER, ALFRED, 27 South Audley-street, London

Guns and rifles

Fusils et carabines

Flinten und Büchsen

Fucili e carabine

11 LANG, JOSEPH, 22 Cockspur-street, London

Guns, rifles, and pistols

Fusils, carabines et pistolets

Flinten, Büchsen und Pistolen

Fucili, carabine e pistole

12 LEWIS, G. E., 32 Lower Loveday-street, Birmingham

Small arms—*Armes à feu*

Gewehre—*Armi da fuoco*

13 LUDLOW, E. & A., Legge-st., Birmingham

Percussion caps—*Capsules*

Kapseln—*Capsule*

14 *MACKENZIE, CAPTAIN J. D., Mountgerald, Dingwall, N.B.

Volunteer knapsack

Sac pour les volontaires

Tornister für die Freiwilligen

Sacco militare per volontari

15 MARRISON, ROBERT, Great Orford-st., Norwich
 Implements for breach-loading fire-arms
Instruments pour les armes à feu se chargeant par la culasse
 Instrumente für Gewehre, die von hinten geladen werden
Accessori per armi da fuoco da caricarsi dalla culatta

15A METFORD, W. E., Bristol
 Patent rifle and explosive bullets
Carabine rayée brevetée et balles explosives
 Patentirte gezogene Büchse und explodirende Kugeln
Carabina patentata e palle esplosive

16 MILLAR, JOHN, & BURTON, BETHEL, Bethnall House, Cambridge-road, London, N.E.
 A breech-loading rifle
Carabine se chargeant par la culasse
 Eine von hinten zu ladende Büchse
Carabina da caricarsi dalla culatta

17 MILLAR, JOHN, Bethnall House, Cambridge-road, London, N.E.
 Model of a metallic cartridge
Modèle d'une cartouche de métal
 Modell von einer metallenen Patrone
Modello di cartuccia metallica

18 PETITO, E., & Co., 4 Vincent street, Ovington-square, Brompton, London
 Breech-loading rifle
Carabine se chargeant par la culasse
 Büchse, die von hinten geladen wird
Carabina da caricarsi dalla culatta

19 REEVES, CHARLES, Small Arms Works, Birmingham
 Rifles, swords, &c.—*Carabines, épées, etc.*
 Büchsen, Degen etc.—*Carabine, spade, ecc.*

20 REILLY, E. M. & Co., 502 New Oxford-st., London (Appendix, p. 118)
 Small arms—*Armes à feu*
 Gewehre—*Armi da fuoco*

21 TUCKER, SCOTT, 72 Ebury-street, London
 Improved bayonet for breech-loaders (the chance of bayonets crossing being lessened)
Baïonnette perfectionnée pour fusils se chargeant par la culasse (les charges à la baïonnette étant à ce jour rares)
 Verbessertes Bajonet für Büchsen, die von hinten geladen werden (da Bajonetangriffe seltener werden)
Baionetta perfezionata per armi caricandosi dalla culatta (gli assalti alla baionetta ora diventi più rari)

CLASS XXXVIII.

Travelling Apparatus and Camp Equipage.

Objets de Voyage et de Campement.

Gegenstände für die Reise und das Feldlager.

Apparati da Viaggio, Equipaggio da Campo.

(For detailed classification, see p. xix.)

(*Voir le système de classification*, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione*, p. xix.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Lord Henry C. G. Lennox, M.P.

Captain Hon. George Wrottesley, R.E.

Right Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. George J. Goschen, M.P.

Sir Roderick I. Murchison, Bart. K.C.B.

Right Hon. Thomas Gabriel, Lord Mayor of London

Right Hon. W. L. Joynst, Lord Mayor of Dublin

Edward Akroyd, Esq. M.P.

Henry Ashworth, Esq.

John Ball, Esq.

Thomas Bazley, Esq. M.P.

Somerset A. Beaumont, Esq.

Benjamin Edgington, Esq.

Francis Galton, Esq.

Thomas Field Gibson, Esq.

James Glaisher, Esq.

Lieut.-Col. J. Grant, R.E.

A. J. B. Beresford Hope, Esq. M.P.

Darnton Lupton, Esq.

John Lytle, Esq.

Wright Mellor, Esq.

A. J. Mundella, Esq.

Henry W. Ripley, Esq.

Richard Russell, Esq.

William Scholefield, Esq. M.P.

Harry Walker, Esq.

A. J. R. Trendell, Esq. *Secretary.*

JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.

Sir S. Baker

Edward Page, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

MacLeod of MacLeod.

1 BUSSEY, SMITH, & Co., 483 New Oxford-st., London

Portmanteaus, trunks, travelling-bags, &c.

Malles, valises, nécessaires de voyage, etc.

Mantelsäcke, Koffer, Reisetaschen etc.

Valigie, bauli, sacchi da viaggio, ecc.

2 CAVE, H. J., & SONS, 1 Edwards-street, Portman-square, London

Portmanteaus, baskets, trunks, &c.

Valises, paniers, malles, etc.

Mantelsäcke, Körbe, Koffer etc.

Valigie, panier, bauli, ecc.

3 EISELER, FRANZ EDWARD, 491 Oxford-street, London

Leather travelling articles

Articles de voyage en cuir

Lederne Reise-Artikel

Oggetti di cuoio da viaggio

- 4 MYERS, MICHAEL, 27 Wigmore-st., London
 Patent expanding dress basket trunks
Malles d'osier pouvant s'élargir pour robes de dames (brevetées)
 Sich ausdehnende Korbkoffer für Kleider (Patent)
Baule panierie espansivo per abiti (patentato)
- 5 NORMAN, S. W., Oakley-corner, Westminster-bridge-road, London
 Travelling boots, felt and fur boots
Chaussures de voyage, chaussures de feutre, chaussures fourrées
 Reiseschuhe, Filz- und Pelzschuhe
Stivali da viaggio, stivali di feltro, e di pelliccia
- 6 SILVER, S. W., & Co., Cornhill, Bishopsgate, and Limehouse, London
 Trunks, tents, camp equipage, &c.
Malles, tentes, objets de campement, etc.
 Koffer, Zelte, Gegenstände für das Feldlager
Bauli, tende, equipaggio da campo, ecc.
- 7 UNITE, JOHN, 130 Edgeware-road, London
 Models of marquee, tent, rickcloth, &c.
Modèles de marquise et de tente, bâches, etc.
 Modelle von Pavillon, Zelt, Heuschobertücher
Modelli di padiglioni, tende, tele da copertoni
- 8 WILKS, EDWIN, Promenade, Cheltenham
 Portmanteaus—*Valises*
 Mantelsäcke—*Valigie*

CLASS XXXIX.

Toys.
 Bimbeloterie.
 Spielzeug.
 Trastulli.

(For detailed classification, see p. xix.)
 (Voir le système de classification, p. xix.)
 (Für detaillirte Classification, siehe Seite xix.)
 (Vedasi il sistema di classificazione, p. xix.)

COMMITTEE—COMITÉ
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 PREISRICHTER—GIURATO.

(No Juror allowed.)
 (Point de Juré nommé.)
 Kein Preisrichter ernannt.)
 (Nessun Giurato nominato.)

- 1 CHAMBERS, W., Lord Provost of Edinburgh, Edinburgh
 Games
Jeux
 Spiele
Giuochi
- 2 CREMER, WILLIAM HENRY, JUN., 210 Regent-street, London
 Dolls, toys, games
Poupées, jouets, jeux
 Puppen, Spielzeug, Spiele
Bambole, trastulli, giuochi
- 3 JEFFERIES & MALINGS, Woolwich, Kent
 Rackets, racket balls, racket shoes
Raquettes et balles, chaussures pour le jeu de raquette
 Schlagnetz, Bälle und Schuhe um Ball (racket) zu spielen
Racchette, palle da racchetta, scarpe pel gioco di racchetta
- 4 LILLYWHITE, JAMES, BRETT, & Co., 4 Newington Causeway, London
 Cricketing articles
Articles de jeu de crosse
 Artikel für das Cricket- (Ballschlag-) Spiel
Oggetti pel giuoco del cricket
- 5 LILLYWHITE, JOHN, 10 Seymour-st., Euston square, London
 Cricketing articles
Articles de jeu de crosse
 Artikel zum Cricketspielen
Oggetti pel giuoco del cricket
- 6 MACKENZIE, REV. C., 309 Regent-st., London
 A drawing room game
Jeu de salon
 Spiel für Gesellschaftssgimmer
Giuoco da salotto
- 7 NICHOLSON, HAMLET, Kilner Dayne-terrace, Rochdale
 Patent compound cricket, croquet, and playing balls
Balles brevetées propres aux jeux de crosse, de croquet, etc.
 Cricket, croquet und andere Bälle, aus einer patentirten Mischung verfertigt
Combinamento di palle per cricket, croquet, e gioco di bocce (patentato)
- 8 PAGE, EDWARD JOSEPH, 188 Kennington-park-road, London
 Cricketing articles
Articles de jeu de crosse
 Artikel zum Cricketspielen
Oggetti pel giuoco del cricket

GROUP V.

Products (Raw and Manufactured) of Mining Industry, Forestry, &c.

Produits (Bruts et Ouvrés) des Industries Extractives.

Producte (roh und fabricirt) des Bergbaues und Forstes etc.

Produzioni (Grezze e Lavorate) di Industria Minerale, Forestale, ecc.

CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Bergbau- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(*Voir le système de classification*, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione*, p. xix.)

COMMITTEE—COMITÉ
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Charles Lawson, Esq.
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David S. Price, Esq.
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Thomas Sopwith, Esq.
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H. Hussey Vivian, Esq. M.P.

Trenham Recks, Esq. *Secretary*

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PREISRICHTER—GIURATO.

S. H. Blackwell, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Captain W. S. Roden.

1 THE ABERDARE COAL COMPANY, 8 Bute-crescent, Cardiff

Steam coal

Houille propre à la génération de la vapeur

Dampfkohle

Carbon fossile da macchina a vapore

2 ADDIS, SAMUEL JOSEPH, 49 Worship-street, Shoreditch, London

Carvers and edge tools

Grands couteaux de table et outils tranchants

Tranchirmesser und Schneidewerkzeuge

Trincianti e strumenti da taglio

3 BAKER, WILLIAM, 10 Pembroke-street, London, N.

Awls, needles, bodkins, &c.

Poinçons, aiguilles, passe lacets, etc.

Ahlen, Nadeln, Schnürnadeln etc.

Lesine, aghi, infilacappi, ecc.

4 BANKART & SONS, Red Jacket Copper Works, Briton Ferry, South Wales, and 9 Clement's-lane, Lombard-street, London

Copper ore, metal copper, coal, &c.

Minerais de cuivre, cuivre à l'état métallique, houille, etc.

Kupfererze, Kupfer, Kohle etc.

Minerale di rame, metallo, rame, carbon fossile, ecc.

5 BARTLETT, WILLIAM, & SONS, Abbey Mills, Redditch

Needles, fish-hooks, &c.

Aiguilles, hameçons, etc.

Nadeln, Angelhaken etc.

Aghi, ame

6 BAUGH, BENJAMIN, 288 Bradford-street, Birmingham

Hollow ware and tablets

Ustensiles de cuisine, de ménage, et plaques

Hohlwaaren und Tabletten

Vasellame, e piastrette

7 BEARD, AMBROSE & SONS, Regent Iron Works, Bilston

Sheet and plate iron

Tôles et fers laminés

Eisenblech und Platten

Lamiera e lastra di ferro

8 BENHAM & SON, Wigmore-street, London

Metal work (see Architectural Court)

Objets d'ornement et d'ameublement en métal

(voir la Salle d'Architecture)

Arbeiten in Metall (siehe architectonische Abtheilung)

Lavori in metallo (vedasi Compartimento d'Architettura)

- 9 BETTS & Co., 1 Wharf-road, City-road, London
Patent metallic capsules, tea lead, and tin foil and silvering foil
Capsules métalliques brevettées, feuilles de plomb pour envelopper le thé, tain, et argent battu
Patentirte metallische Kapseln, Blei-, Zinn- und Silberfolien
Capsule metalliche per turaccioli, piombo in foglia per tè, e foglia di stagno, e foglia da argenteure
- 10 BIRMINGHAM & NORTH OF ENGLAND PATENT FORGED NAIL & RIVET COMPANY (Limited), Clementhorpe Works, York
Nails and rivets
Clous et rivets
Nägel und Niete
Chiodi, e chiodi da ribaditure
- 11 BIRMINGHAM PATENT IRON & BRASS TUBE COMPANY, Smethwick, near Birmingham
Iron and brass tubes, gas-fittings
Tuyaux de fer et de laiton, becs à gaz
Eiserne und messingene Röhren, Gasbrenner
Tubi di ferro, e d'ottone, fornimenti per gas
- 12 BISHOPS WALTHAM CLAY COMPANY (Limited)
Hampshire clays for terra cotta, pottery bricks, &c.
Argiles pour objets en terra cotta, poterie, briques, etc.
Hampshire-Thon für Terra-Cotta, Backsteine etc.
Argille di Hampshire per terra cotta, vasellami, mattoni, ecc.
- 13 BLAENAVON COMPANY (Limited), 86 Cannon-street, London
Pig and rolled iron, steam coal and coke
Fers en gueuses et laminés, houille propre à la génération de la vapeur, et coke
Roh- und gerolltes Eisen, Dampfkohle und Koke
Ferro in pane e laminato, carbon fossile per macchine a vapore e coke
- 14 BODRINGALT COAL COMPANY, Cardiff
Marine and locomotive steam coal, &c.
Houille propre à la génération de la vapeur pour machines de bateaux et locomotives, etc.
Dampfkohle für Dampfschiffe und Locomotiven etc.
Carbon fossile per macchine a vapore navali, locomotive, ecc.
- 15 BOULTON, WILLIAM, & SON, Redditch
Needles, fish-hooks
Aiguilles, hameçons
Nadeln, Angelhaken
Agghi, e ami
- 16 BOWLING IRON COMPANY, Bowling, near Bradford (Appendix, p. 119)
Iron and steel machinery
Appareils de fer et d'acier
Maschinerie aus Eisen und Stahl
Macchine di ferro e d'acciaio
- 17 BRABY, FREDERICK, & Co. (Limited), Fitzroy Works, Euston-road, London
Zinc and galvanised iron roofing, &c.
Toiture de zinc et de fer galvanisé
Zink und galvanisirte Eisenbleche für Dächer etc.
Tettoie di zinco, e di ferro galvanizzato, ecc.
- 18 BRITISH OIL & CANNEL COMPANY (Limited), 2 Cannon-street, Manchester
Mineral and other oils, spirits, &c., cannel oil and bituminous shales
Huiles minérales et autres, liquides volatils, huile extrait du charbon cannel, schistes bitumineux
Stein- und andere Oele, Spiritus etc., Oel von Cannelkohle und bituminösen Schieferen
Oli minerali ed altri, spiriti, ecc., olio di carbone cannel, e di schisti bituminosi
- 19 BROTHERTON, JOHN, & Co., Monmore-green, Wolverhampton
Welded wrought-iron gas tubes and fittings
Tuyaux soudés et becs à gaz en fer forgé
Zusammengeschweisste schmiedeeiserne Gasröhren nebst Zubehör
Tubi e fornimenti per gas in ferro affinato battuto
- 20 BROUGHTON COPPER COMPANY (Limited), Broughton-road, Manchester
Manufactured copper and brass
Objets en cuivre et en laiton
Fabricirtes Kupfer und Messing
Rame e ottone lavorato
- 21 BROWN, JOHN, & Co. (Limited), Atlas Steel and Iron Works, Sheffield
Manufactures in iron and steel
Objets et instruments de fer et d'acier
Eisen- und Stahlfabricate
Lavori in ferro e in acciaio
- 22 BROWN & DOWNING, 64 Clement-street, Birmingham
Metal work (see Architectural Court)
Objets d'ornement et d'ameublement en métal (voir la Salle d'Architecture)
Gegenstände in Metall (siehe architectonische Abtheilung)
Lavori in metallo (vedasi Compartimento d'Architettura)
- 23 BROWNE, WILLIAM, St. Austell
China clay, china stone
Matières premières pour la fabrication de la porcelaine
Kaolin, Chinastein
Argilla e pietra da porcellana
- 24 BURGESS, W., 15 Buckingham-street, Strand, London
Ecclesiastical metal work (see Architectural Court)
Ornements en métal pour les services religieux (voir la Salle d'Architecture)
Metalarbeit für Kirchen (siehe architectonische Abtheilung)
Lavori in metallo ecclesiastici (vedasi Compartimento d'Architettura)

- 25 BURY & Co. (Limited),** Regent Works, Penistone-road, Sheffield
Steel, files, edge tools, hammers
Acier, limes, outils tranchants, marteaux
Stahl, Feilen, Schneidwaaren, Hämmer
Acciaio, lime, strumenti da taglio, martelli
- 26 BUSSEY, GEORGE G.,** 482 New Oxford-street, London
Patent buttons
Boutons brevetés
Patentirte Knöpfe
Bottoni (patentati)
- 27 BWWLFA COLLIERY COMPANY (Limited),** 15 Coal Exchange, London
Coal, fossils, &c.
Houille, fossiles, etc.
Kohlen, Fossilien etc.
Carbon fossile, fossili, ecc.
- 28 CANNELINE OIL COMPANY (Limited),** 50 Coal Exchange, London
Oils—*Huiles*
Oele—*Oli*
- 29 CHICHESTER, JOHN,** 97 Belgrave-rd., London
Mineral oils
Huiles minérales
Mineralische Oele
Oli minerali
- 30 CLARK, T. & C., & Co.,** Shakespeare Foundry, Horseley-fields, Wolverhampton
Enamelled and tinned cast-iron hollow ware; stable fittings, &c.
Objets de fonte étamée et émaillée, ustensiles de cuisine et de ménage, stalle d'écurie et accessoires
Emaillirte und verzinnte Gusseisentöpfe; Gegenstände für den Pferdestall etc.
Vaselleme di ferro fuso smaltato e stagnato, fornimenti da stalla, ecc.
- 31 COMFORT, E. J., & Co.,** Clifton-road, Newcross, London
Fine wove wires, dandy rolls, bank-note moulds, &c.
Tissus métalliques, rouleaux à vergeures, moules pour billets de banque
Feingewobene Drähte, Rollen, Banknotenformen etc.
Tessuti in fili metallici fini, cilindri da cartiere, forme per biglietti di banca, ecc.
- 31A CONSETT IRON Co.,** Gateshead-on-Tyne
Coal, coke; pig, bar, and plate iron
Houille, coke; fer en gueuses, en barres et en feuilles
Kohle, Koke; Roh-, Stangen-, und Platten-eisen
Carbon fossile e di legna; ferro in pane, in barre, e in lame
- 32 COPE, MILLER, & Co.,** 30 King's-street, Manchester
Iron—*Fers*
Eisen—*Ferri*
- 33 COPPER MINERS IN ENGLAND, GOVERNOR, & Co.,** of (W. P. Struvé, Manager), Cwm Avon Works, Taibach, Glamorganshire
Iron, copper, tin plates, Aberdare steam coal
Fers, cuivre, feuilles d'étain, houille à vapeur d'Aberdare
Eisen, Kupfer, Zinnplatten, Dampfkohle von Aberdare
Lastre di ferro, rame, zinco, carbon fossile di Aberdare da macchina a vapore
- 34 CROWN PRESERVED COAL COMPANY,** 39 Old Hall-street, Liverpool
Preserved coal
Houille conservée
Presskohle
Carbon fossili confezionati
- 35 DAVIS, D., & SONS,** 7 Bute-crescent, Cardiff
Steam coal
Houille propre à la génération de la vapeur
Dampfkohle
Carbon fossile da macchine a vapore
- 36 DIXON, JOHN,** 5 Abchurch-yard, London
Iron—*Fers*—Eisen—*Ferro*
- 37 DOLLAR BROTHERS,** 56 New Bond-street, London, and Paris
Horse-shoes
Fers à chevaux
Hufeisen
Ferri da cavallo
- 38 DUDLEY, EARL OF** (per Mr. Frederick Smith), The Priory, Dudley
Iron and minerals
Fers et minéraux
Eisen und Mineralien
Ferro e minerali
- 39 EAGLE IRON WORKS (HOLLINSWOOD) COMPANY** (Limited), Wellington, Shropshire
Best puddled wire rods
Fers ronds puddlés pour tréfileries
Stangen von bestem Puddle-Eisen
Verghe di ferro fatte di filo, del ferro meglio affinato
- 40 ELLIOTT'S PATENT SHEATHING AND METAL COMPANY,** Coleshill-street, Birmingham
Yellow metal and copper sheathing, brass and copper sheets, wire, bolts, rods, and pans
Doublage de métal jaune et de cuivre, cuivre et laiton en planches, fils de laiton, chevilles, ustensiles de cuisine
Messing- und Kupferblech, Messing- und Kupferplatten, Draht, Bolzen, Stangen und Pannen
Foderatura di metallo giallo e di rame, lamiera di ottone e di rame, fili metallici, verghe, vasi in rame
- 41 ENGLISH AND AUSTRALIAN COPPER COMPANY** (Limited), 6 Gracechurch-street, London
Copper, copper ores, &c.
Cuivre, minerais de cuivre, etc.
Kupfer und Kupfererze
Rame, minerali rame, ecc.

- 42 EVANS & ASKIN, George-street, St. Paul's, Birmingham
German silver manufactures, cobalt and nickel refining
Objets de maillechort, affinage du cobalt et du nickel
Fabricate aus Neusilber, gereinigter Kobalt und Nickel
Lavori in pacfong, cobalto e nickel raffinati
- 43 EVERITT, A., & SONS, Kingston Metal Works, Birmingham
Tubes, wires, rolled metals
Tubes, fils de fers, plaques de métaux laminés
Röhren, Drähte und gewalzte Metalle
Tubi, fili metallici, metalli cilindrati
- 44 FERGUSON, HENRY & JOHN, 4 South Wharf-road, Paddington, London
Enamelled slate chimney-pieces
Chambranes de cheminées d'ardoise émaillée
Emailirte Schiefer für Kamingesimse
Camminetti di lavagne smaltate
- 46 FOX, HEAD, & Co., Middlesboro'-on-Tees
Iron—Fers—Eisen—Ferri
- 47 GANE, GEORGE, 66 Gaisford-street, Kentish-town-road, London (Appendix, p. 120)
Patent money-tills
Caisses de comptoir brevetées
Patentirte Ladenkasse
Cassette da danaro (patentate)
- 48 GILPIN, W., SENIOR, & Co., Cannock, near Stafford (Appendix, p. 121)
Edge tools
Outils tranchants
Meissel
Strumenti da taglio
- 48A GLYNCORRWG COAL COMPANY (Limited), Briton Ferry, South Wales
Steam coal
Houille propre à la génération de la vapeur
Dampfkohle
Carbon fossile pella generazione di vapore
- 49 GREENING, N., & SONS, Warrington
Steam-wove wire
Tissus métalliques fabriqués à la vapeur
Draht, mit Maschinen gewoben
Filo metallico tessuto a vapore
- 50 GREEN'S PATENT TUBE COMPANY, Limited, Leek-street, Birmingham
Patent solid drawn brass tubes for steam-boilers
Tubes étirés sans soudure, pour chaudières à vapeur
Messingene Röhren, ohne Loth, für Dampfkessel
Tubi senza costura patentati, per cal daie a vapore
- 51 GREGORY, JAS. R., 15 Russell-st., Covent-garden, London
Minerals, fossils, &c.
Minéraux, fossiles, etc.
Mineralien, Fossilien etc.
Minerali, fossili, ecc.
- 52 HADLEY BROTHERS, Eyte-street, Spring-hill, Birmingham
Cut nails—Clous taillés
Gehauene Nägel—Chiodi tagliati
- 53 HART & SON, Wych-street, Strand, London
Cast-iron grille, made for the South Kensington Museum; metal work (see Architectural Court and Testing House) (Appendix, p. 122)
Grillage de fonte, fabriquée pour le Musée de South Kensington; objets d'ornement en métal (voir la Salle d'Architecture et le Bâtiment des Essais)
Gusseiserner Bratofen für das Museum in South-Kensington; Arbeit in Metall (siehe architektonische Abtheilung)
Cannello di ferro fuso, fatto pel Museo di South Kensington; lavori in metallo (vedasi Compartimento d'Architettura)
- 53A HASWELL COAL COMPANY, Sunderland
Specimens of coal—*Spécimens de charbon*
Kohlenproben—*Campioni di carbon fossile*
- 53B HAYES, CROSSLEY, AND BENNETT, Alcester, and 1 Mitre-court, Wood-street, London
Easy sewing needle
Aiguille pour coudre facilement
Nähadel, um das Nähen leicht zu machen
Ago per cucire facilmente
- 54 HEATH, WILLIAM, Neveux Works, Crabbs-cross, Redditch
Sewing machine needles and tools
Aiguilles et instruments pour machines à coudre
Nadeln und Werkzeuge für die Nähmaschine
Macchine da cucire, aghi, e arnesi
- 55 HEELEY, JAMES, & SONS, 73 Graham-street, Birmingham
Corkscrews, nutcrackers, key-rings, &c.
Tire-bouchons, casse-noix, anneaux à clefs, etc.
Korkzieher, Nussknacker, Schlüsselringe etc.
Tiratappi, schiaccianoci, anelli da chiavi, ecc.
- 56 HEINTZMANN & ROCHUSSEN, 9 Friday-street, London
Iron wire, wire nails, and wire rope
Fils de fer, clous, et cables métalliques
Eisendraht, Drahtnägeln und Drahtseile
Filo di ferro, chiodi di fil di ferro, e gomene di filo metallico
- 57 HIGGS, SAMUEL, JUN., F.G.S., Penzance
Mineral products of Cornwall
Collection des minéraux du comté de Cornwall
Mineralische Producte von Cornwall
Prodotti minerali del Cornwall
- 58 HILL, JOSEPH, 18 Broad-street, Islington, Birmingham
Ornamental stamping in metal for lamps, &c.
Lampes, etc., fabriquées de métal estampé
Metallene gepresste Verzierungen für Lampen etc.
Metallo improntato a ornati per lumi
- 59 HILL, JOSEPH VAUGHAN, 253 Gray's-inn-road, London
Saws—Scies—Sägen—Seghe

- 60 HOLLAND, JOHN**, 68 Oakley-street, Lambeth, London
Gun metal, iron, planes, tools, &c.
Fers pour la fabrication des fusils, rabots, outils, etc.
Kanonenmetall, Eisen, Hobel, Werkzeuge etc.
Metallo da cannone, ferro, pialle, arnesi, ecc.
- 61 HOWITT, R. T.**, 25 Denmark-street, Soho, London
Springs, &c., for carriages
Ressorts, etc., pour carrosserie
Federn etc. für Kutschen
Molle, ecc., per carrozze
- 62 HUGHES, HESKETH**, Homerton, London
Rolled wires and tubes
Fils de fer et tubes laminés
Gewalzte Drähte und Röhren
Fili metallici, e tubi cilindrat
- 63 HYNAM, JOHN**, 7 Princes-square, Finsbury, London
Fuller's earth; purified also in powder
Terre à foulon brute, et épurée en poudre
Walkererde; auch gereinigt, in Pulver
Terra di purgo in pezzi, ed anche, purificata e polverizzata
- 65 JAMES FOUNDRY COMPANY**, Bridgeman-street Works, Walsall
Builders' ironmongery
Grosse serrurerie pour les constructions
Eisenwaaren für Bauten
Ferramenti da costruttori
- 67 JOHNSON, MATTHEY, & Co**, Hatton-garden, London (Appendix, p. 135)
Platinum apparatus, rare and precious metals, metallurgical preparations
Appareil de platine, métaux rares et précieux, produits métallurgiques
Platinapparate, seltene und edle Metalle, Hüttenpräparate
Apparato in platino, metalli rari, e preziosi, preparazioni metallurgiche
- 68 JOHNSON, RICHARD, & NEPHEW**, 27 Dale-street, Manchester (Appendix, p. 123)
Iron wire, galvanised, telegraph, fencing, &c.
Fil de fer, galvanisé et non-galvanisé, pour télégraphes, etc.
Eisendraht, galvanisirt, für Telegraphen und Zäune etc.
Fil di ferro, fil di ferro galvanizzato, per telegrafo, per ringhiere ecc.
- 69 JONES, BENJAMIN**, Rhos Gorsgoch & Dunant Collieries, Llanelly
Anthracite coal, first qualities
Anthracite, premières qualités
Kohlenblende, beste Qualitäten
Carbone antracite, prime qualità
- 70 JOWITT, THOMAS, & SON**, Scotia Works, Sheffield
Files
Limes
Feilen
Lime
- 71 KEITH, W.**, Westmoreland-place, London
Ecclesiastical metal work (see Architectural Court)
Ornements en métal pour les services religieux (voir la Salle d'Architecture)
Metallene Arbeiten für Kirchen (siehe architectonische Abtheilung)
Lavori metallici ecclesiastici (vedasi Compartimento d'Architettura)
- 72 KIRBY, BEARD, & Co.**, 18 Cannon-street, London, and Paris
Pins, needles, and fish-hooks
Épingles, aiguilles et hameçons
Steck- und Nähnadeln, Angelhaken
Spilli, aghi, ami
- 73 LAVERS & BARRAUD**, Endell-street, London
Brass work (see Architectural Court)
Objets d'ornement en laiton (voir la Salle d'Architecture)
Arbeiten in Messing (siehe architectonische Abtheilung)
Lavori in ottone (vedasi Compartimento d'Architettura)
- 74 LEACH, FLOWER, & Co.**, Melyn Tin Works, Neath
Tin and terne plates
Fers blancs brillants et ternes
Weissbleche und Terne-Platten
Bande stagnate, brillante e terne
- 75 THE LILLESHELL COMPANY**, Shiffhall, Shropshire
Coal, minerals, &c.
Houille, Minéraux, etc.
Kohlen, Mineralien etc.
Carbon fossili, minerali, ecc.
- 76 LLOYD, MARTIN**, Charles Henry-street, Birmingham
Malleable nails
Clous malltables
Schmiedeeiserne Nägel
Chiodi malleabili
- 77 LOVERIDGE, H., & Co.** (see Class 14)
Papier-mâché trays, japanned wares, &c.
Plateaux de papier-mâché, objets vernissés, etc.
Präsentirteller aus Papier-mâché, lackirte Waaren etc.
Vassoi in carta-pesta, oggetti verniciati a locca, ecc.
- 78 THE LOW MOOR COMPANY**, Low Moor, Bradford
Coal, ironstone, pig and wrought iron, &c.
Houille, minéraux de fer, fer en saumons, fer forgé, etc.
Kohlen, Eisenstufen, Roh- und Schmiedeeisen etc.
Carbon fossile, minerale di ferro, ferro in pane, e battuto, ecc.

79 MACDONALD, FIELD, & Co., Aberdeen
Polished red, blue, and grey granites
Granits polis, rouges, bleus, et gris
Polirte rothe, blaue und graue Granite
Graniti rossi, blue, e grigi tirati a lustro

81 MARTIN BROTHERS, Saint Austell
Lee Moor fire bricks, china clay, china stone
Argile de Lee Moor pour la fabrication de la porcelaine, briques réfractaires, kaolin
Feuerfeste Backsteine von Lee Moor, Porcellanthon, Kaolin
Mattoni a prova di fuoco di Lee Moor, argilla da porcellane, caolina

82 MARTINEAU & SMITH, 65 Hill-street, Birmingham
Brass cocks and valves, gun-metal cocks and fittings, bells, &c.
Robinets et soupapes de laiton, robinets de bronze et petite serrurerie, sonnettes, etc.
Messingene Hähne und Ventile, kanonenmetallene Hähne, und andere Waaren, Schellen etc.
Cannelle e valvole d'ottone, cannelle, fornimenti campanelli, ecc.

84 MILLWARD, J. F., 76 New John-street, Birmingham
Awl blades and sewing machine needles
Poinçons d'acier et aiguilles pour les machines à coudre
Ahlen und Nadeln für die Nähmaschine
Lame di lesine, e aghi da macchina da cuire

85 MILWARD, HENRY, & SONS, Washford Mills, Redditch
Needles, fish-hooks, &c.
Aiguilles, hameçons, etc.
Nadeln, Angelhaken etc.
Aghi, ami

85A MITCHELL, JOSEPH, Worsborough Dale, Barnsley
Sample of coal
Spécimen de houille de Barnsley
Kohlenprobe
Campione di carbon fossile di Barnsley

86 MONKBRIDGE IRON COMPANY, Leeds
Cast-steel tyres, locomotive axles, boiler plates, and bar iron
Bandages de roues en acier fondu, essieux de locomotives, tôles pour la fabrication des chaudières, fer en barres
Radschienen aus Gussstahl, Achsen für Locomotiven, Dampfkesselpplatten und Stabeisen
Cerchioni di acciaio fuso, sale da locomotiva, astroni da caldaia, e barre di ferro

87 MOORE, EDWIN, & Co., 54 Upper Marylebone-street, London
Seythe, knife, and scissor sharpeners
Appareil à aiguiser les faux, les couteaux et les ciseaux
Apparate um Sensen, Messer und Scheren zu schärfen
Affilatoi da falci, coltelli e forbici

88 MOORE & MANBY, 3 Billiter-sq., London, and Dudley
Samples of iron
Fers
Eisenproben
Campioni di ferro

89 MORETON, JOHN, & Co., Wolverhampton, Sheffield, and 6 and 7 Sherborne-lane, London
Hardware
Quincaillerie
Eisenwaaren
Chincaglierie

90 MOREWOOD & ROGERS, Stratford, London
Patent rolled tin and Terne plates; galvanised and corrugated iron
Feuilles d'étain, et tôles recouvertes d'un amalgame de plomb et d'étain dites de Terne; fer bruni et galvanisé
Gewalzte Zinn- und Terne-Platten, galvanisirte und wellenförmiges Eisen
Bande cylindrate stagnate, e bande stagnate e piombate dette Terne, cilindrate (patentate), ferro galvanizzato e scanalato

91 MUCKLESTON, REV. E., Haseley Rectory, Warwick
Lead ore; cannel coal; stone
Mineral de plomb; charbon-cannel; pierre
Bleierz; Cannelkohle; Stein
Minerale di piombo, carbone cannel; pietra

92 NEWALL, D. H. and J., Maxwell-street, Dalbeattie
Specimen of granite work
Spécimen de granit ouvré
Proben von Arbeit in Granit
Campioni di lavori in granito

93 NORTH GUNBARROW CLAY COMPANY, 1 East-street, Newton Abbot, Devon
China clay
Argile pour la fabrication de la porcelaine
Kaolin
Argilla per far porcellana

94 NORTH WALES COAL OIL COMPANY, Flintshire
Welsh cannel coal and shales, with their products
Charbon-cannel et schistes du pays de Galles, avec leurs produits
Cannelkohle und Schiefer von Wales und ihre Producte
Carbone cannel e schisti coi loro prodotti

95 PAGE, JOSEPH, 71 Mott-street, Birmingham
Corkscrews, &c.
Tire-bouchons, etc.
Korkzieher etc.
Tiratappi, ecc.

97 PARKES, JOHN I., Smethwick, Birmingham
Cut nails, frying pans, rice-bowls, &c.
Glaus taillés, poêles à frire, bassins pour le riz
Gehauene Nägel, Pfannen, Reistöpfle etc.
Chiodi tagliati, padelle, bacini pel riso, ecc.

- 98 PATENT NUT AND BOLT COMPANY (Limited),**
London Works, near Birmingham
Nuts, bolts, and rivets
Cheilles, boulons, et rivets
Schraubenmütter, Riegel und Niete
Madrevite, chiavarde, chiodi da ribadire
- 99 PATENT PLUMBAGO CRUCIBLE COMPANY,**
Battersea Works, London (Appendix, pp. 124-5)
Plumbago, black lead, and their uses
Plombagine, graphite, et leur produits
Graphit und seine Anwendungen
Piombaggine, grafite, e loro usi
- 100 PERRENS & HARRISON, The Lye Works,**
Stourbridge
Fire clay and fire bricks
Argile et briques réfractaires
Feuerfester Thon und Backsteine
Argilla, e mattoni a prova di fuoco
- 101 PHOENIX PATENT BOLT & NUT COMPANY,**
Glover-street, Birmingham
Patent machine-made bolts and nuts
Boulons et chevilles fabriqués à la mécanique (brevetés)
Patentirte Riegel und Schraubenmütter, mit Maschinerie gemacht
Chiavarde e madrevite fatti a macchina (patentata)
- 102 PIKE, W. & J., Wareham, Dorset**
Dorsetshire clays
Argiles du comté de Dorsetshire
Thone von Dorsetshire
Argille del Dorsetshire
- 103 POTTER, J., South Molton-street, London**
Metal work (see Architectural Court)
Objets d'ornement en métal (voir la Salle d'Architecture)
Arbeit in Metall (siehe architektonische Abtheilung)
Lavori in metallo (vedasi Compartimento d'Architettura)
- 104 PRATT, BROTHERS, & FARMER, Albert**
Works, Graham-street, Birmingham
Needles secured on paper by machinery
Aiguilles fixées sur papier à la mécanique
Nadeln, durch Maschinerie auf Papier befestigt
Aghi fissati su carta a forza meccanica
- 105 PRICE, DR. DAVID S., 26 Great George-street, Westminster**
Various illustrations of the metallurgy of iron and steel
Spécimens divers de la métallurgie du fer et de l'acier
Verschiedene Illustrationen des Stahl- und Eisenhüttenprocesses
Varie illustrazioni della metallurgia del ferro e dello acciaio
- 106 RECKITT & SONS, Hull and London**
Black leads
Graphites
Graphite
Grafiti
- 107 REID, PATRICK SANDEMAN, Percy-chambers, Northumberland-street, Strand, London**
Oils of petroleum, &c.
Huiles de pétrole, etc.
Petroleum etc.
Oli di petrolio, ecc.
- 108 RICH & SON, Farnham-place, Gravel-lane, Southwark, London**
Hardware
Quincaillerie
Eisenwaaren
Chincaqlierie
- 109 SCOTT, WILLIAM, & Co., 5 Jeffrey's-square, London**
Malleable iron castings and sewing machine
Fontes malleables et machine à coudre
Stabeisen, Gusseisen und Nähmaschine
Getti di ferro malleabili, e macchine da cucire
- 110 SHIPMAN, J., & Co., Attercliffe Steel and Wire Works, Sheffield**
Wire and steel
Fils de fer, et acier
Draht und Stahl
Filo di ferro e acciaio
- 111 SINGER, J. W., Frome, Somerset**
Mediaeval metal work for churches
Objets d'ornement pour églises, style moyen âge
Mittelalterliche Metallararbeit für Kirchen
Lavori in metallo per chiese, stile medioevo
- 112 SKIDMORE'S Art Manufactures Company, Coventry**
Metal work (see Architectural Court and Testing House)
Objets d'ornement en métal (voir la Salle d'Architecture et le Bâtiment des Essais)
Arbeit in Metall (siehe architektonische Abtheilung)
Lavori in metallo (vedasi Compartimento d'Architettura)
- 113 SMITH, FREDERICK, & Co., Caledonia Works, Halifax**
Iron wire
Fils de fer
Eisendraht
Filo di ferro
- 114 SMITH, JOHN WRIGHT, 57 High Cross-street, Leicester**
Self-acting needles
Aiguilles automotrices
Automatische Nadeln
Aghi automatici
- 115 SOPWITH, THOMAS, 103 Victoria-street, Westminster, London (Appendix, p. 126)**
Lead ores, lead
Minerais de plomb, plomb
Bleierze und Blei
Minerale di piombo, piombo

- 116 STANLEY, FREDERICK THOMAS**, Montague-street, Stones End, London
Horse-shoes
Fers à chevaux
Hufeisen
Ferri da cavallo
- 116A STEVENSON, JACQUES, & Co.**, Middlesboro
Minerals from Cleveland district
Minéraux tirés du district de Cleveland
Mineralien von dem Districte von Cleveland
Minerali dal distretto di Cleveland
- 117 STICKLEY, JAMES**, 5 Cross-street, Hatton-garden, London
Precious metals, gold leaf
Métaux précieux, feuilles d'or
Edle Metalle, Blattgold
Metalli preziosi, foglia d'oro
- 118 SUTTON, WILLIAM, & SONS**, 44 New Town-row, Birmingham
Awl blades, needles, &c.
Poinçons d'acier, aiguilles, etc.
Ahlen, Nadeln etc.
Lame da lesine, aghi, ecc.
- 119 TAYLOR BROTHERS & Co.**, Leeds
Tyres, axles, &c.
Bandages de roues, essieux, etc.
Radschienen, Achsen etc.
Cerchioni, sale, ecc.
- 120 TAYLER, D. F., & Co.**, Newhall Works, George-street, Birmingham
Toilet pins, iron and steel wire
Epingles de toilette, fils de fer, fils d'acier
Toilettnadeln, Eisen- und Stahldraht
Spilli da toaletta, fil di ferro e d'acciaio
- 121 TONKS, WILLIAM, & SONS**, Moseley-street, Birmingham
Brass and metal work
Objets divers de laiton, etc.
Messing- und Metallarbeit
Lavori di ottone e di metallo
- 122 TOWNSEND, GEORGE, & Co.**, Hunt End, Redditch
Needles, shuttles, reels, &c., for sewing machines
Aiguilles, navettes, bobines, etc., pour machines à coudre
Nadeln, Schiffchen, Haspeln etc. für Nähmaschinen
Aghi, spolette, rocchetti, ecc., per macchine da cucire
- 124 TUDOR, S. & W.**, Lead Works, Hull, and 17 College-hill, London
White and red lead
Blanc de plomb, céruse
Bleiweiss und Mennige
Piombo rosso e bianco
- 125 TUPPER & Co.**, 61A Moorgate-street, London
Galvanised iron, &c.
Fers galvanisés, etc.
Galvanisirtes Eisen etc.
Ferro galvanizzato, ecc.
- 126 TURTON, THOMAS, & SONS**, Sheaf and Spring Works, Sheffield (Appendix, p. 127)
Steel, files, saws, tools, &c.
Acier, limes, scies, outils, etc.
Stahl, Feilen, Sägen, Werkzeuge etc.
Acciaio, lime, seghe, strumenti, ecc.
- 126A VANE, EARL**, Sunderland
Specimens of coal
Spécimens de charbon
Kohlenproben
Campioni di carbon fossile
- 127 VICKERMAN & Co.**, Tenby (Appendix, p. 128)
Iron—*Fers*
Eisen—*Ferri*
- 127A WALKER, JOSEPH, PARKER, & Co.**, Chester, Liverpool, London, and Newcastle-on-Tyne
White, red, sheet and pig lead; patent shot; pipes, lead ore, &c.
Blanc de plomb, céruse, feuilles de plomb, plomb en saumons; plomb de chasse breveté; tuyaux, minerais de plomb, etc.
Bleiweiss, Bleisuboxyd, Blei in Platten und Sauen; Patentschrot; Röhren, Bleierz, u. s. w.
Biacca, minio, piombo in pane e in lame; palla patentata; tubi, minerale di piombo, ecc.
- 128 WATSON, JOHN, & SONS**, Bathville, Bathgate
Model in Boghead canal, and products by distillation of Boghead cannel
Modèle en charbon-cannel de Boghead, produits de la distillation de ce charbon
Ein Modell in Cannelkohle und Producte der Destillation der Bogheader Cannelkohle
Modello in carbone cannel di Boghead e prodotti della distillazione del Boghead, carbone cannel
- 129 WEBSTER & HORSFALL**, 15 Bromsgrove-street, Birmingham
Patent steel wire
Fils d'acier brevetés
Patentirter Stahldraht
Fil d'acciaio (patentato)
- 130 WEST CUMBERLAND HEMATITE IRON COMPANY (Limited)**, Workington, Cumberland
Pig iron, boiler and other plates
Fers en saumons, tôles pour chaudières, etc.
Roheisen, Dampfkessel- und andere Platten
Ferro in pane, lastroni per caldaie e altro
- 131 WEST OF ENGLAND CHINA STONE AND CLAY COMPANY**, St. Austell
Clay for bleachers, potters, and paper manufacturers; fire bricks and tiles, and architectural bricks
Argile pour blanchisseurs, potiers et fabricants de papier; briques et tuiles réfractaires, briques pour constructions
Thon für Bleicher, Töpfer und Papiermacher; feuerfeste und andere Backsteine und Dachziegel
Argilla per imbiancatori, vasai, e fabbricanti di carta; mattoni e tegole a prova di fuoco, e per architettura

132 WHITEWAY & Co., Kingsteignton, near Newton Abbot, Devon
Tobacco-pipe and potter's clays
Argiles pour la fabrication des pipes et des poteries
Pfeifen- und Töpferthon
Pipe da tabacco, e argille da vasellaio

133 WHITLEY, JOSEPH, & Co., Railway Brass Works, Leeds
Brass steam fittings, castings, &c.
Ajustages, montures, et fontes de laiton, etc.
Messingene Bestandtheile und Gusswaaren für Dampfmaschinen, u. s. w.
Getti e aggiustature di ottone pel vapore, ecc.

134 WIGAN COAL AND IRON COMPANY (Limited), Wigan
Cannel, bituminous coal, pig iron, and model
Charbon-cannel, houille bitumineuse, fers en saumons, et modèle
Cannel- und bituminöse Kohlen, Roheisen und Modell
Carbone cancell, e bituminoso, ferro in pane e modello

134A WINFIELD, R. W., & Co. (see Class 24)
Brassfoundry, brass and copper tubes, wire, &c.
Objets de laiton, tubes, fils, etc., de laiton et de cuivre
Messingwaaren, Messing- und Kupferröhren, Draht, u. s. w.
Oggetti di rame, tubi, fili di rame, d'ottone, ecc.

135 WORTH, SAMUEL LEAKE, 293 Oxford-street, London
Patent knife cleaners, silver and steel polishers, razor strops, &c.
Machines brevetées à nettoyer les couteaux, polissoirs pour l'acier et l'argent, cuirs à repasser les rasoirs, etc.
Patentirte Maschinen zum Messerschärfen zum Poliren von Silber und Stahl, Streichriemen für Rasirmesser etc.
Lustra-coltelli (patentato), brunitore da argento e oro, striscia da rasoio, ecc.

136 YSTALYFERA IRON AND TIN PLATE COMPANY, Swansea
Anthracite coal, pig, bar, and sheet iron, &c., tin plates
Anthracite, fers en saumons, en barres, tôles, feuilles d'étain, etc.
Anthracite, Roh- und Stabeisen, Eisenbleche und Weissbleche
Carbone antracite, ferro in pane, in barra, e in lastrone, ecc., bandoni

137 ZOBEL, JULIUS, 139 Euston-road, London
Hammered metal-work
Objets de métal martelé
Gehämmerte Metallarbeit
Lavoro in metallo martellato

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der davon abhängigen Geschäftszweige

Prodotti della Coltura delle Foreste e delle Industrie che ne derivano.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

COMMITTEE—COMITÉ
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William Hawes, Esq.
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Charles Lawson, Esq.
Murray Marshall, Esq.
Dr. D. Moore
Andrew Murray, Esq.
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H. Hussey Vivian, Esq. M.P.
Dr. Edward J. Waring
Mac Leod of Mac Leod, Secretary.

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PREISRICHTER—GIURATO.

Hon. F. D. McGee.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

P. L. Simmonds, Esq.

1 BROWN, LAWRENCE, Mansfield-st., Leicester
Bent timber

Bois de charpente courbé
Gebogenes Holz
Legname curvato

2 CLARKE, WILLIAM HENRY, 76 Cheapside, London

Charcoal and fibre for paper, papier-mâché, &c.
Charbon de bois et fibres pour la fabrication du papier, papier-mâché, etc.
Holzkohle und Fasern für Papier, Papier-mâché etc.

Carbone di legno e fibra per carta, carta-pesta

2A EAST, SAMUEL (see Class 35)

Lasts and boot-trees
Formes et embouchoirs
Leisten und Stiefelblöcke
Forme da scarpe e stivali

3 ESDAILE & SHEATH, City Saw Mills, Wenlock-road, London
Veneers, ships' blocks, congrève splints, &c.
Feuilles à plaquer, poulies, éclisses pour allumettes, etc.
Fourniere, Schiffswinden, Stäbchen für Streichhölzer
Impiallacciature, bozzelli, stecchi per fiammiferi, ecc.

4 FRY, WALTER, Bristol
A farmer's bottle; a spirit cask
Bouteille de fermier; tonneau à liqueur
Eine Feldflasche; Branntweinfass
Bottiglia da fattore

6 NORMAN, SAMUEL, 76 Oakley-street, Lambeth, London
Wooden boots and clogs
Sabots et socques
Holzschuhe und Stiefeln
Stivali di legno, e zoccoli

7 SCIENCE AND ART DEPARTMENT, South Kensington, London
Experiments on woods exhibited at the International Exhibition of 1862, made by Capt. Fowke, R. E.
Expériences faites au Musée de South Kensington, par le Capitaine Fowke, sur les bois exposés à l'Exposition Internationale de 1862
Capitän Fowke's, R.E. Experimente an Hölzern, bereits ausgestellt in der Internationalen Ausstellung von 1862
Sperimenti fatti su legni esposti all'Esposizione del 1862 dal Capitano Fowke (Genio Militare)

8 SIMMONDS, P. L. and E., 8 Winchester-street, London, s.w.
Fibres, woods, &c., products of West Africa
Fibres, bois, etc., provenant de l'Afrique Occidentale
Fasern, Hölzer etc., Producte von Westafrika
Fibra, legni, ecc., prodotti d'Africa occidentale

9 WESTLAKE, SAMUEL, 2 Bloomsbury-square, London
Veneers of all the choice foreign woods
Feuilles à plaquer de tous les plus beaux bois étrangers
Fourniere von ausgewählten fremden Hölzern
Impiallacciature di tutti i migliori legni stranieri

CLASS XLII.

Products of Shooting, Fishing, and of the Earth obtained without Culture.

Produits de la Chasse, de la Pêche et des Cucillettes.

Producte der Jagd, des Fischfangs und uncultivirte Erzeugnisse der Erde.

Prodotti della Caccia, della Pesca e della Terra ottenuti senza Coltura.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

COMMITTEE—COMITÉ
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Samuel W. Baker, Esq.
Thomas Bazley, Esq. M.P.
Somerset A. Beaumont, Esq.
Rev. M. J. Berkeley
Dr. Alexander Carte
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Charles Lawson, Esq.
Clements R. Markham, Esq.
Taverner J. Miller, Esq. M.P.
Dr. John Rae
Alexander Ronaldson, Esq.
Warrington W. Smyth, Esq.
Professor Wyville Thomson, F.R.S.
H. Hussey Vivian, Esq. M.P.
Dr. E. J. Waring

Mac Leod of Mac Leod, *Secretary*.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Professor Wyville Thomson, F.R.S.

1 CLARK, G. F. H., & Co., 8 and 35 Camomile-street, London, &c.

Resinous gums and turpentine, &c.

Gommes-résines et térébenthines, etc.

Harze und Terpentin etc.

Gomme resinose, e trementine, ecc.

1A WALMSLEY, R. & Co., 66 Market-place, Hull

Rare specimens of feathers

Spécimens de plumes rares

Seltene Federn

Campioni di piume rare

- 2 WARD, HENRY, 2 Vere-street, Oxford-street, London
 Stuffed birds, &c.
Oiseaux empaillés
 Ausgestopfte Vögel etc.
Uccelli impagliati, ecc.

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile conservation.

Leicht conservirbare Agricultur-Producte (die nicht zur Nahrung dienen).

Prodotti d'Agricoltura (non usati per cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(*Voir le système de classification, p. xx.*)

(Für detaillirte Classification, siehe Seite xx.)

(*Vedasi il sistema di classificazione, p. xx.*)

COMMITTEE—COMITÉ
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 Thomas Bazley, Esq. M.P.
 Somerset A. Beaumont, Esq.
 George T. Clark, Esq.
 Thomas Clayton, Esq.
 Charles Forster, Esq. M.P.
 William J. Hamilton, Esq.
 William Hawes, Esq.
 Dr. J. D. Hooker
 H. W. Meade King, Esq.
 Charles Lawson, Esq.
 Reginald H. Nevell, Esq.
 Alexander Ronaldson, Esq.
 Warrington W. Smyth, Esq.
 H. Hussey Vivian, Esq. M.P.
 Dr. Frankland, Secretary.

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO.

D. Hanbury, Esq.

ASSOCIATE—ASSOCIÉ
 HÜLFSPREISRICHTER—ASSOCIATO.

Dr. T. Thomson, F.R.S.

- 1 BUXTON, WILLIAM, Lime-tree Lodge, Rotherhithe, London
 Patent 'Slaiveur de laine'
'Slaiveur de laine' breveté
 'Slaiveur de laine' (Patent)
'Slaiveur di lana' (patentato)

- 2 COLLYER, R. H., M.D., Boulogne-sur-Mer, France
 Flax, jute, hemp, &c.; paper materials in various stages of preparation
Lin, chanvre, jute, etc.; matières premières de la fabrication du papier à divers degrés de préparation
 Flachs, Jute (indisches Gewächs), Hanf etc.; Papier in den verschiedenen Stadien der Verarbeitung
Lino, canapa d'India (jute), canapa, ecc., materiali per carta in vari stadi di preparazione
- 3 DAVIS, EDWARD JOHN, Globe Wharf, Mile-end, London
 Compressed fodder, &c.
Fourrages comprimés, etc.
 Gepresstes Viehfutter
Foraggi compressi, ecc.
- 4 EMANUEL & SON, Nelson-street, Bradford
 Wool
Laine
 Wolle
Lana
- 5 EVANS & STAFFORD, Manufactory, Leicester
 Cigars
Cigares
 Cigarren
Sigari
- 6 JOWITT, ROBERT, & SONS, Leeds
 Australian and Cape wools
Laines d'Australie et du Cap de Bonne Espérance
 Wolle von Australien und dem Cap der guten Hoffnung
Lane d'Australia e del Capo
- 7 NEIGHBOUR, G., & SONS, 127 High Holborn, London
 Oils, &c.
Huiles, etc.
 Oele etc.
Oli, ecc.
- 8 POLS, JOHN A., 26 Bucklersbury, London
 Oils, seed, and cakes for food for cattle
Huiles, graines préparées pour la nourriture des animaux
 Oele, Samen und Kuchen zum Viehfutter
Oli, semi, e panelli per ingrassare bestiame
- 9 ROGERS, E. S., & Co., Collyhurst-road, and 2 Cannon-street, Manchester
 Oils, greases, varnishes, mineral spirits, &c.
Huiles, graisses, vernis, essences minérales, etc.
 Oele, Fette, Firnisse, Steinöle etc.
Oli, grassi, vernice, spiriti minerali, ecc.
- 10 WINDLE, J. D., 18 Rothwell-street, Oldham
 Oil for chronometers and watches
Huile pour les chronomètres et les montres
 Oel für Chronometer und Uhren
Olio per cronometri e orologi

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Producte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

*(Vedasi il sistema di classificazione, p. xx.)*COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Duke of Buckingham and Chandos
 Right Hon. Edward Cardwell, M.P.
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HULFSPREISRICHTER—ASSOCIATO.

Dr. David Price.

- 1 ADAMS, JOHN, Victoria Park, Sheffield
 Patent compositions for cleaning furniture, metals, &c.
Compositions brevetées pour le nettoyage des meubles, des métaux, etc.
 Patentirte Composition zum Reinigen der Möbel, Metalle etc.
Composizioni per pulire mobilia, metalli, ecc. (patentate)
- 2 ALLEN & HANBURYS, Plough-court, Lombard-street, London (Appendix, p. 129)
 Liebig's extract of meat, and cod-liver oil
Extrait de viande de Liebig, et huile de foie de morue
 Liebig's Fleischextract und Leberthran
Estratto di carne, (processo Liebig), e olio di fegato di merluzzo

- 3 ALLHUSEN, C., & SONS, Tyne Chemical Works, Gateshead and Newcastle-upon-Tyne (Appendix, p. 131)
 Bicarbonate, sulphate, and crystals of soda, alkali, caustic soda, chloride of lime, &c.
Bicarbonate, sulphate et cristaux de soude, alcalis, soude caustique, chlorure de chaux, etc.
 Schwefelsaures, Crystallisirtes und doppelt-kohlensaures Natron, Alkali, Caustisches Natron, Chlorkalk etc.
Bicarbonato solfato e cristalli di soda, alcali, soda caustica, cloruro di calce, ecc.
- 4 ASH, LEWIS, & Co., Wallis-road, White Post-lane, Hackney Wick, London
 Chemicals, colours, manures, flower Fructerine, patent disinfectant
Produits chimiques, couleurs, engrais, 'Fructerine' pour les fleurs, désinfecteur breveté
 Chemicalien, Farben, Dünger, Blumenfruchter, patentirter Desinfecteur
Preparati chimici, colori, concimi, 'Fructerine' per fiori, disinfettante patentato
- 5 BAILEY, JOHN, Shooter's-hill, Stoke-upon-Trent
 Colours for porcelain, glass, &c.
Couleurs préparées pour la peinture sur porcelaine, verre, etc.
 Farben für Porcellan, Glas etc.
Colori per porcellana, vetro, ecc.
- 5A BERGER, SAMUEL, & Co., (see Class 67)
 Rice starch
Amidon de riz
 Reisstärke
Amido di riso
- 6 BEWICKE & VINCENT, White-post-lane, Hackney Wick, London
 Varnishes—*Vernis*—Firnisse—*Vernici*
- 7 BORWICK, GEORGE, 34 Chiswell-street, London
 Baking powder, chemicals, spices, &c. (Appendix, p. 132)
Poudre farineuse, produits chimiques, épices
 Pulver für Bäcker (anstatt der Hefe); Chemicallyen. Gewürze etc.
Polveri da lievito, preparati chimici, spezie
- 8 BRITANNIA RUBBER & KAMPTULICON COMPANY, 40 Cannon-street, London
 India-rubber articles and fabrics, &c.
Objets et tissus de caoutchouc, etc.
 Gegenstände aus Caoutchouc etc
Oggetti e tessuti di gomma elastica, ecc.
- 9 BRITISH SEA-WEED COMPANY (Limited), Whitecrook Chemical Works, Dalquair, Glasgow
 Specimens illustrating Stanford's process of treating sea-weeds
Produits extraits des plantes marines (procédé Stanford)
 Proben von Stanford's Process Meergras zu behandeln
Saggi a illustrazione del processo Stanford pel trattamento delle alghe

- 10 BURGOYNE, BURBIDGES, & SQUIRE**, Coleman-street, London
Raw drugs, chemicals, &c.
Matières premières de la chimie et de la pharmacie
Rohe und verarbeitete Chemalien etc.
Droghe naturali, preparati chimici, ecc.
- 11 BUSH, WILLIAM JOHN**, 30 Liverpool-street, London
Essential oils, fruit essences, citrate of magnesia, &c.
Huiles essentielles, essences de fruits, citrate de magnésie, etc.
Etherische Oele, Fruchtesenzen, citronensäure Magnesia etc.
Oli essenziali, essenze di frutti, citrato di magnesia, ecc.
- 12 BUTLER & McCULLOCH**, Covent-garden Market, London
Dried medical herbs, seeds, &c.
Herbes médicinales séchées, graines, etc.
Getrocknete medicinische Kräuter, Samen etc.
Semplici, semi secchi, ecc.
- 13 CALLEY, SAMUEL**, New-road, Brixham, Devon
Specimens of 'Torbay' iron oxide paints, and compositions for ships' metal sheathing, &c.
Couleurs à base d'oxyde de fer de Torbay, et enduits pour la conservation du doublage métallique des navires, etc.
Proben von den Torbay-Eisenoxyd-Farben und Compositionen für metallene Schiffsbleche etc.
Saggi di tinte d'osside de ferro 'Torbay,' e composizioni pel doblaggio metallico delle navi, ecc.
- 14 CALVERT, F. CRACE, & Co.**, Gibbons-street, Bradford, near Manchester
Carbolic acid etc.
Acide carbolique etc.
Carbolsäure etc.
Acido carbolico, ecc.
- 15 CHANCE BROTHERS & Co.** (see Classes 16 and 66)
Chemicals and artificial manures
Produits chimiques, et engrais artificiels
Chemalien und künstliche Dünger
Prodotti chimici, e concimi
- 16 CLARKE, SAMUEL**, 110 Albany-street, Regent's-park, London (Appendix, p. 133)
Patent pyramid night lights and lamps
Bougies-veilleuses pyramidales (brevetées)
Pyramidale Nachlichter und Lampen (Patent)
Lume da notte e bugie a piramide (patentate)
- 17 COLMAN, J. & J.**, 108 Cannon-street, London
Rice starch and starch products
Amidon de riz et produits d'amidon
Reisstärke und Stärke-Producte
Amido di riso e prodotti d'amido
- 18 CONDY BROTHERS & Co.**, 15 Garlick-hill, London
Essential oils, and drugs
Huiles essentielles, et médicaments
Etherische Oele und Arzneiwaaren
Oli essenziali, e droghe
- 19 CONDY, HENRY B.**, Battersea, London
Condy's fluid, or natural disinfectant
Liqueur de Condy, désinfecteur naturel
Condy's Flüssigkeit, oder natürlicher Disinfectirer
Fluido di Condy, o disinfectante naturale
- 20 COOK, EDWARD, & Co.**, East London Soap Works, Bow, London
Soap
Savon
Seife
Sapone
- 21 COOK, W., & Co.**, 84 Sandhill, Newcastle-on-Tyne
Chemicals
Produits chimiques
Chemalien
Preparati chimici
- 22 COW, P. B., HILL & Co.**, 46 and 47 Cheapside, London
Serrated rubber mats, and india-rubber clothing
Nattes en caoutchouc à surface raboteuse, vêtements de caoutchouc
Rauhe Matten von Caoutchouc, und Kleider, von Caoutchouc gemacht
Stoie în goma elastica dentate, abiti di gomma elastica
- 23 CROOKES, W.**, 20 Mornington-road, London
Metallic thallium
Thallium à l'état métallique
Metallisches Thallium
Thallium metallico
- 24 DARNEY, J., & SONS**, Kinghorn, Scotland, and 124 Drury-lane, London
Glues and glue material
Colles-fortes et matières de leur fabrication
Leim und Leimmaterialien
Colle e materiali da colla
- 25 DAVY, YATES, & ROUTLEDGE**, 100 Upper Thames-street, London
Chemical products
Produits chimiques
Chemische Erzeugnisse
Prodotti chimici
- 26 DAY & MARTIN**, 97 High Holborn, London
Blacking
Cirage
Schuhschwärze
Lustro da scarpe
- 27 DEMUTH, LEWIS, & Co.**, Springfield Chemical Works, Oldbury, near Birmingham
Coal-tar products, &c.
Produits extraits du goudron, etc.
Producte aus Kohlentheer etc.
Prodotti di catrame di carbon fossile
- 27A DENTON & JUTSUM**, Bow Common, London
Varnish, colours, oils and grease; raw materials and their products
Vernis, couleurs, huiles et graisses; matières premières et leurs produits
Firniß, Farben, Oele und Fett; Rohmaterialien und ihre Producte
Vernice, colori, oli e grasso; materie greggie e i loro prodotti

- 28 DODGE, G. P., 79 Upper Thames-st., London
India-rubber goods for mechanical purposes
Tampons, courroies, rondelles, etc., de caoutchouc pour les machines
Caoutchouc-Präparate für mechanische Zwecke
Lavori di gomma elastica per usi di meccanica
- 29 ESCHWEGE, HERMANN, Chemical Works, Battersea, London
Pure wood naphtha, and some applications
Naphte pur de bois, et ses usages
Reine Holznaphtha und einige Anwendungen
Nafta pura di legno, e alcune applicazioni
- 30 FIELD, J. C. & J., London (Appendix, p. 134)
Patent self-fitting wax, sperm, paraffine, and stearine candles, &c. (see also Testing House)
Bongies de cire, de sperme, de paraffine et de stéarine s'adaptant elles-mêmes aux chandeliers (brevetés), etc. (voir aussi le Bâtiment des Essais)
Patentirte sich dem Leuchter anpassende
Lichter aus Wachs, Wallrath, Paraffin, Stearin etc.
Candele di cera, spermaceti, parafino, e stearina, se adattanti ai candellieri (patentate)
- 31 FLEET, E., & Co., Walworth, London (Appendix, p. 130)
Artificial mineral waters; chemical constituents of natural springs
Eaux minérales artificielles, sels minéraux de sources naturelles
Künstliche Mineralwasser; chemische Bestandtheile von natürlichen Quellen
Acque minerali artificiali, costituenti chimici delle sorgenti naturali
- 32 FOOT & Co., Battersea, London
Chemical products
Produits chimiques
Chemische Producte
Prodotti chimici
- 33 FORSTER & GREGORY, Lonesome Chemical Works, Streatham Common, London
Chemicals
Produits chimiques
Chemicalien
Preparati chimici
- 34 GAMMIE-MAITLAND, G., Shotover House, Oxfordshire
Native Oxford ochre
Ocre naturelle du comté d'Oxford
Einheimischer Ocher von Oxford
Oera naturale di Oxford
- 35 GARROD & Co., 56 Upper Thames-st., London
Varnishes and gums
Vernis et gommes
Firnisse und Gummis
Vernici e gomme
- 36 GAS PRODUCTS UTILISING COMPANY, 10 Coleman-street, London
Alum and other products from the refuse of gas works
Alun et autres produits tirés des résidus des usines à gaz
Alaun und andere Producte, von Abfälle von Gasanstalten erhalten
Allume e altri prodotti provenienti delle fecce di fabbricche di gas
- 37 GASKELL, DEACON, & Co., Widnes, Lancashire
Solid products of the soda manufacture
Produits solides dérivés de la fabrication de la soude
Feste Producte der Soda-Fabrication
Prodotti solidi della manifattura di soda
- 38 GIBBS, DAVID & WILLIAM, 76 Milton-street, London
Household and manufacturer's soaps
Savons de ménage et pour l'industrie
Seifen für den Haushalt und Fabricanten
Saponi per uso domestico, e dei manifattori
- 39 GOSSAGE, W., & SONS, Widnes, near Warrington
Soaps and silicates used in making soap
Savons et matières siliceuses pour leur fabrication
Seifen und Silicate für Seifensieder
Saponi e silicati, usati nella fabbricazione da saponi
- 40 HAAS, J. R., & Co., Leeds
Refined carmine and soluble indigo
Carmin raffiné et indigo soluble
Raffinirter Carmin und löslicher Indigo
Carminio raffinato e indaco solubile
- 41 HADLAND, A. C., & Co., Dan-y-Graig Works, Swansea
Specimens of arsenic
Spécimens d'arsenic
Arsenikproben
Campione di arsenica
- 42 HARE, J. & Co., Bristol
Painters' and coachmakers' colours
Couleurs à l'usage des peintres et des carrossiers
Farben für Maler und Kutschenmacher
Colori da pittori e carrozzieri
- 44 HODGSON & SIMPSON, Calder Soap Works, Wakefield
Soap—*Savon*
Seife—*Sapone*
- 45 HOLLAND, WILLIAM, Market Deeping
Essential oils, extracts, dried herbs, &c.
Huiles essentielles, extraits, herbes d'esséchées, etc.
Aetherische Oele, Extracte, getrocknete Kräuter etc.
Oli essenziali, estratti, erbe secche
- 46 HOPKIN & WILLIAMS, 5 New Cavendish-street, London
Chemical products
Produits chimiques
Chemische Producte
Prodotti chimici
- 47 HOSEGOOD & Co., St. George's Colour Works, George-yard, Whitechapel
Colours—*Couleurs*
Farben—*Colori*

- 48 HOWARDS & SONS**, Stratford, near London
Salts of quinine and other chemicals
Sels de quinine et autres produits chimiques
Quininsalze und andere Chemicalien
Sali di chinino e altri preparati chimici
- 49 THE HURLET & CAMPSIE ALUM COMPANY**, Glasgow
Crystals of alum and of yellow and red prussiate of potash
Cristaux d'alun et de prussiate de potasse jaune et rouge
Crystalle von Alaun und gelbem und rothem blausaurem Kali
Cristalli di allume, e prussiato di potassa giallo e rosso
- 50 HUSKISSON, W., & SONS**, 77 Swinton-street, Gray's-inn-road, London
Chemical products
Produits chimiques
Chemische Producte
Prodotti chimici
- 51 THE JARROW CHEMICAL COMPANY**, South Shields
Specimens of chemical products
Produits chimiques
Chemische Producte
Saggi di prodotti chimici
- 52 JOHNSON, MATTHEY, & Co.**, Hatton-garden, London (Appendix, p. 135)
Rare chemical and metallurgical products
Produits rares de la chimie et de la métallurgie
Seltene Chemicalien und Hüttenproducte
Prodotti rari chimici e metallurgici
- 53 JOHNSON & SONS**, 18A Basinghall-street, London
Chemicals, chiefly photographic
Produits chimiques, principalement pour la photographie
Chemicalien, besonders photographische
Preparati chimici, specialmente fotografici
- 54 JONES, ORLANDO, & Co.**, York-road, Battersea, London
Starch, &c.
Amidon, etc.
Stärke etc.
Amido, ecc.
- 55 KNIGHT, JOHN, & SONS**, York-place, Old Gravel-lane, London
Primrose soap
Savon parfumé à la primevère
Primrose-Seife (Schlüsselblumen)
Sapone di primavera
- 56 LAMBE & STERRY**, Rotherhithe New-road, London
Refined paraffine wax, &c.
Cire de paraffine raffinée, etc.
Raffinirtes Paraffinwachs etc.
Cera di petrolio raffinata, ecc.
- 56A LANGDALE, E. F.**, 72 Hatton-garden, London
Essential oils, artificial essences, &c.
Huiles essentielles, essences artificielles, etc.
Etherische Oele, künstliche Essenzen etc.
Oli essenziali, essenze artificiali, ecc.
- 57 LANGTON & BICKNELLS**, 89 Newington Butts, London
Spermaceti, oils, &c.
Blanc de baleine, huiles, etc.
Wallrath, Oele etc.
Spermaceti, oli, ecc.
- 58 LE MAOUT, A.**, 57 Princes-street, Leicester-square, London
Jujube capsules containing nauseous drugs
Capsules de jujube pour médicaments
Kapseln für unangenehme Medicin, aus Jujube (der rothen Brustbeere) gemacht
Capsule di giuggioli contenenti medicine nauseanti
- 59 *THE LONDON LAC DYE COMPANY (Limited)**, 65 Charlwood-street, Pimlico, London
Dyes, shell or gum lac, &c.
Teintures, laques en écailles, etc.
Farben, Schellack oder Gumlack etc.
Tinte, gommalacca, ecc.
- 60 LOWE, CHARLES, & Co.**, 14 Fountain-street, Manchester
Carbolic acid and its derivatives, &c.
Acide carbolique et ses dérivés, etc.
Carbolsäure und ihre Ableitungs-Producte etc.
Acido carbolico e suoi derivati, ecc.
- 61 McDougall Brothers**, Manchester and London (Appendix, p. 136)
Disinfectants, sheep dipping composition, chemicals, &c.
Produits désinfectants, composition inoffensive pour immerger les moutons, produits chimiques
Disinfections-Stoffe, Mischung um die Schafe zu waschen, Chemicalien etc.
Disinfettanti, composizione per tuffarvi le pecore, preparazioni chimiche, ecc.
- 62 MACFARLAN, J. F. & C.**, 17 North Bridge, Edinburgh
Chemical products
Produits chimiques
Chemische Producte
Prodotti chimici
- 63 MACKAY, JOHN**, 119 George-street, Edinburgh
Varnishes, polishes, and gum resins
Vernis, enduits, résines
Firnisse, Polituren und Harze
Vernici, pulimenti, e gomme resine
- 64 MANDER BROTHERS**, Wolverhampton
Varnishes, &c.
Vernis, etc.
Firnisse etc.
Vernici, ecc.
- 65 MASON, JOSEPH, & Co.**, 3 Derwent-street, and Burton-road, Derby
Colours and varnishes
Couleurs et vernis
Farben und Firnisse
Colori e vernise

- 66 MAY & BAKER, Garden Wharf, Battersea, London
Chemicals
Produits chimiques
Chemicalien
Preparati chimici
- 67 *MAYALL, T. J., 3 Carey-street, London
India-rubber manufactures
Objets de caoutchouc
Fabricate aus Caoutchouc
Manifatture di gomma elastica
- 68 MORSON, THOMAS, & SON, 31, 33, 124 Southampton-row, and Hornsey-road, London
Chemical products
Produits chimiques
Chemicalien
Prodotti chimici
- 69 MUSPRATT, JAMES, & SONS, 41 Oldhall-street, Liverpool
Chemical products connected with the manufacture of alkali
Produits chimiques ayant rapport à la fabrication de l'alcali
Chemische Producte im Zusammenhang mit der Fabrication der Alkalien
Prodotti chimici relativi alla manifattura degli alkali
- 70 NIMMO, T., & Co., Rivald's Green Works, Linlithgow, Scotland
Glue—*Colle-forte*
Leim—*Colla*
- 71 OGLEBY, CHARLES, & Co., 53 Paradise-street, Lambeth, London
Wax, spermaceti, paraffine, and composite candles, soaps, &c.
Bougies de cire, de blanc de baleine, paraffine, etc.; savons
Lichter aus Wachs, Wallrath, Paraffin etc., Seifen etc.
Candele di cera, spermaceti, paraffino, e composite, saponi, ecc.
- 72 PARKES, ALEXANDER, 435 Coventry-road, Birmingham
Parkesine manufactures
Manufactures Parkesines
Parkesin-Fabricate
Lavori di Parkesina
- 73 PARKINS, THOMAS, Robert Town, near Northampton, Yorkshire
Prussiate of potash
Prussiate de potasse
Blausaures Kali
Prussiato di potassa
- 74 PETMAN, MULLAR, & Co., 13 Queen-street, Southwark-bridge-road, London
Toilet soaps, and soaps for household and manufacturing purposes
Savons de toilette, de ménage, pour le foulage, etc.
Toilettenseife und Seife für den Haushalt und Fabrikzwecke
Saponi da toilette, e saponi per usi domestici e delle manifatture
- 75 *PRICE, ASTLEY PASTON 47 Lincoln's-inn-fields, London
Specimens illustrative of improvements in the production of tartaric acid
Spécimens pour démontrer des améliorations introduites dans la production de l'acide tartarique
Proben um die Verbesserung in der Weinsäure-Fabrication darzuthun
Saggi illustranti perfezionamenti nella produzione dell'acido tartarico
- 76 *PRICE, DR. D. S. (see Class 40)
Preservation of paintings in galleries; sulphurometer
Conservation des tableaux dans les galeries; sulphuromètre
Erhaltung von Gemälden in Gallerien; sulphurometer
Conservazione di quadri in gallerie; sulfurometro
- 77 PRICE'S PATENT CANDLE COMPANY (Limited), Belmont Works, Battersea, London
Candles, night lights, oils, soaps, & glycerine
Chandelles, bougies-veilleuses, huiles, savons et glycérine
Lichter, Nachtlichter, Oele, Seifen und Glycerin
Candele, lumi da notte, oli, saponi, e glicerina
- 78 PULFORD, G. C., 4 Dowgate-hill, Cannon-street, London
Magnetic paints, &c.
Couleurs magnétiques, etc.
Magnetische Farben etc.
Tinte magnétique, ecc.
- 79 RANSOM, WILLIAM (see Class 25)
Pharmaceutical preparations, essential oils, herbs, &c.
Produits pharmaceutiques, huiles essentielles, herbes, etc.
Pharmaceutische Preparate, etherische Oele, Kräuter etc.
Preparati farmaceutici, oli essenziali, erbe, ecc.
- 80 RECKITT, ISAAC, & SONS, 149 Upper Thames-street, London
Starch, &c.—*Amidon, etc.*
Stärke etc.—*Amido, ecc.*
- 81 ROSE, WILLIAM A., 66 Upper Thames-street, London
Railway and other greases, fats, oils
Graisses pour locomotives, corps gras, huiles
Schmierer für Eisenbahnwagen, Fette, Oele
Unti per ferrovie, grasse, oli
- 82 RUMSEY, WILLIAM S., 3 Clapham-rise, London
I. X. L. jewellery tablets, non-mercurial plate powder, polishing paste, &c.
I. X. L. poudre pour nettoyage des bijoux, poudre à nettoyer la vaisselle, sans mercure; pâtes à polir, etc.
I. X. L. Pulver für Juwelen, Pulver für das Reinigen werthvoller Gefässe, (enthält kein Quecksilber), Polirmasse etc.
I. X. L. polvere per ripulimento di gioje, polvere per argenteria, e pasta da lustrare senza mercurio, ecc.

- 83 SAVORY & MOORE** (see Class 11 and App., p. 137)
Pancreatic emulsions; gelatine disks for ophthalmic operations; pharmaceutical preparations
Emulsions pancréatiques; disques de gélatine pour les opérations sur les yeux; préparations pharmaceutiques
Pancreatic Emulsions, Gelatinscheiben für Ophthalmische Operationen; Pharmaceutische Präparate
Emulsioni pancreatiche; dischi in gelatina per operazioni oftalmiche; preparati farmaceutici
- 84 SCHLESINGER, LOUIS**, 13 Liverpool-street, City, London
Essential oils, essences, drugs, &c.
Huiles essentielles, essences, médicaments, etc.
Etherische Oele, Essenzen, Arzneiwaaren etc.
Oli essenziali, essenze, droghe, ecc.
- 85 SCHWEITZER, H., & Co.**, 35A King's-road, London (Appendix, p. 137)
Cocoatina, and cocoa-butter, and its applications
Cocoatina, et beurre de cacao, et ses usages
Cocoatina und Cacaobutter und ihre Anwendungen
Cacaotina, e burro di cacao, e suoi usi
- 86 SCHWEPPE, J., & Co.**, 51 Berners-street, London
Aërated mineral waters
Eaux minérales gazeuses
Mit Gasen impregnirte Mineralwasser
Acque minerali aerate
- 87 *SCOTT, WENTWORTH L.**, F.C.S., F.A.S.L., Analytical Laboratory, Westbourne-park, London
Artificial quinine and other chemicals
Quinine artificielle et autres produits chimiques
Künstliches Quinin und andere Chemicalien
Chinina artificiale e preparati chimici
- 88 THE SHARON CHEMICAL COMPANY**, Derby
Oil of vitriol, sulphate and carbonate of ammonia, &c.
Acide sulfurique, sulfate et carbonate d'ammoniaque, etc.
Schwefelsäure, schwefel- und kohlen-saures Ammoniak etc.
Olio di vitriolo, solfato e carbonato di ammoniaca, ecc.
- 89 SMITH, T. & H., & Co.**, 21 Duke-street, Edinburgh, and 69 Coleman-street, London
Chemicals
Produits chimiques
Chemicalien
Preparati chimici
- 90 SQUIRE, PETER**, 277 Oxford-street, London
Preparations of the British pharmacopœia
Préparations de la pharmacopée britannique
Präparate der Britischen Pharmacopie
Preparati della farmacopea britannica
- 91 STEPHENS, HENRY**, 18 St. Martin's-le-grand, London
Stains for dyeing wood (see also Testing House)
Couleurs pour la teinture du bois (voir aussi les Bâtimens des Essais)
Beizen um Holz zu färben
Tinte per colorir il legno
- 92 SZERELMEY & Co.**, 39A King William-street, London
Compositions for preserving stone, brick, stucco, &c.
Enduits pour la conservation de la pierre, des briques, du stuc, etc.
Mischungen um Steine, Backsteine, Stucco etc. zu preserviren
Composizioni per conservare la pietra, il mattone, lo stucco, ecc.
- 92A Szerelmey, N.C.**, London
Colours—*Couleurs*
Farben—*Colori*
- 93 TALBOT & ALDER**, 127 Fenchurch-street, London
Colours, &c.—*Couleurs, etc.*
Farben etc.—*Colori, ecc.*
- 94 TAYLER, HARRY, & Co.**, 42 St. Paul's Church-yard, London
India-rubber and gutta-percha, raw and manufactured
Caoutchouc et gutta-percha bruts, et leurs produits
Caoutchouc und Gutta-percha, roh und fabricirt
Gomma elastica, e gutta perca grezze e manifatturate
- 95 TAYLOR, WILLIAM, & Co.**, Leith
Composite, stearic, and paraffine candles, products of the distillation of shale
Bougies de stéarine, de paraffine, etc.; produits de la distillation du schiste
Compositions, Stearin- und Paraffin-Lichter, Produkte der Schiefer-Destillation
Candele composite, steariche, e di parafino, prodotti della distillazione dello schisto
- 96 TIDMAN & SON**, 10 Wormwood-street, London, E.C.
'Tidman's sea salt'
Sel marin de Tidman
Tidman'sches Seesalz
Sal marino di 'Tidman'
- 97 *TUCKER, FRANCIS, & Co.**, 18 South Molton-street, London
Wax and church candles
Bougies et cierges
Wachs- und Kirchenlichter
Cera e candele da chiesa
- 98 TURNER, CHARLES, & SON**, 7 Broad-street, Bloomsbury, London
Varnishes, gums, &c.
Vernis, gommes, etc.
Firnisse, Gummis etc.
Vernici, gomme, ecc.

99 TWINBERROW, J., & Co., 53 Broad-street,
Worcester

Aërated and mineral waters

Eaux gazeuses et minérales

Impregnirte Mineralwasser

Acque aerate e minerali

100 TWINBERROW & SON (see Class 11)

Pharmaceutical preparations and cod-liver oil
*Préparations pharmaceutiques et huile de foie
de morue*

Pharmaceutische Preparate und Leberthran

*Preparati farmaceutici e olio di fagato di mer-
luzzo*

101 USHER, RUFUS, Bodicott, near Banbury

English rhubarb and biennial henbane

Rhubarbe anglaise, et jusquiame bisannuelle

Englischer Rhabarber und zweijähriges
Bilsenkraut

Rabarbaro inglese, e giusquiamo bienne

102 WALKER ALKALI COMPANY, Newcastle-
upon-Tyne

Hyposulphite of soda and ammonia, refined
alkali

*Hyposulfite de soude et d'ammoniaque, alcali
raffiné*

Unterschwefligsaures Natron und Ammoniak,
raffinirte Alkalien

*Ipposolfiti di soda e di ammoniaca, alcali
raffinati*

103 WARNE, W., & Co., 9 Gresham-street
West, London

Manufactures of india-rubber

Objets de caoutchouc

Caoutchouc-Fabricate

Manifatture di gomma elastica

104 WILKIE & SOAMES (see Class 24)

Hard candles (see also Testing House)

*Chandelles dures (voir aussi le Bâtiment des
Essais*

Harte Lichter

Candele dure

105 WILKINSON, HEYWOODS, & CLARK, Battle-
bridge, King's-cross, London

Varnishes, colours, &c.

Vernis, couleurs, etc.

Firnisse, Farben etc.

Vernici, colori, ecc.

106 WOOD, THOMAS P., JUN., St. George's
Works, High-street, Chesterfield

Aërated waters, &c.

Eaux gazeuses, etc.

Impregnirte Wasser etc.

Acque aerate, ecc.

107 YOUNG, JAMES, Chemical Works, Bath-
gate, Scotland

Solid paraffine candles, oils, &c.

Bougies de paraffine, huiles, etc.

Feste Paraffinlichter, Oele etc.

Candele di paraffino solido, oli, ecc.

CLASS XLV.

Specimens of the Chemical Processes
for Bleaching, Dyeing, Printing, and
Dressing.

*Spécimens des Procédés Chimiques de
Blanchiment, de Teinture, d'Impres-
sions et d'Apprêts.*

Proben der chemischen Processe, die
sich auf's Bleichen, Färben, Drucken
und Appretiren beziehen.

*Saggi di Processi Chimici per Imbian-
care, Tingere, Stampare e dar l'Ap-
parecchio.*

(For detailed classification, see p. xxi.)

(*Voir le système de classification, p. xxi.*)

(Für detaillirte Classification, siehe Seite xxi.)

(*Vedasi il sistema di classificazione, p. xxi.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Duke of Buckingham and Chandos
Right Hon. Edward Cardwell, M.P.
Sir Roderick I. Murchison, Bart. K.C.B.
Sir Robert Kane, F.R.S.
Dr. Lyon Playfair, C.B.
Henry Ashworth, Esq.
Thomas Bazley, Esq. M.P.
Somerset A. Beaumont, Esq.
George T. Clark, Esq.
Charles Forster, Esq. M.P.
William J. Hamilton, Esq.
William Hawes, Esq.
H. W. Meade King, Esq.
Charles Lawson, Esq.
Alexander Ronaldson, Esq.
Edward Schunck, Esq. Ph.D.
Warington W. Smyth, Esq.
H. Hussey Vivian, Esq. M.P.

Dr. Frankland, *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Sir Robert Kane, F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Dr. C. Cameron.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1A BARLOW, SAMUEL, & Co., Slakehill Works,
Chaddleton, Manchester

Cotton goods dyed

Tissus de coton teints

Gefärbte Baumwollenwaaren

Tessuti di cotone tinti

1 McNAUGHTAN & THOM, 80 Mosley-street,
Manchester

Printed calicoes

Calicots imprimés

Gedruckte Kattune

Calico stampati

- 2 *MORTYN, W. & P., 2 Oldham-place, Faringdon-road, London, w.c.
Specimens of dyeing of fast colours
Tissus teints en couleurs solides
Proben echt gefärbter Stoffe
Saggi di tintura a colori indelebili
- 3 RIPLEY, EDWARD, & SON, Bradford
Textile fabrics as specimens of dyeing and finishing
Tissus teints et apprêtés
Gewebe als Muster des Färbens und Appretirens
Manifatti tessuti per saggi di tintura e confezionamento
- 4 WHINCUP, JOSEPH, 2 Wood-street, London
Printed cloth table covers
Tapis de table de draps imprimés
Gedruckte Tischdecken von Tuch
Tappeti da tavola stampati

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

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Henry Ashworth, Esq.
Thomas Bazley, Esq. M.P.
Somerset A. Beaumont, Esq.
Samuel Bevington, Esq.
George T. Clark, Esq.
Charles Forster, Esq. M.P.
William J. Hamilton, Esq.
William Hawes, Esq.
H. W. Meade King, Esq.
Charles Lawson, Esq.
J. A. Nicholas, Esq.
Alfred F. Puckridge, Esq.
Alexander Ronaldson, Esq.
Warington W. Smyth, Esq.
H. Hussey Vivian, Esq. M.P.

W. Matchwick, Esq. Secretary.

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Dr. Forbes Watson, A.M. F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

J. Evershed, Esq.

- 1 BAYLEY, THOMAS, Lenton near Nottingham
Coloured skivers, hat-linings, parchment, &c.
Cuir fendus et teints, doublures de chapeaux, parchemin, etc.
Gefärbte Leder, Futter für Hüte, Pergament, etc.
Pellame intinto, soppano da cappello, pergamene, ecc.

- 2 BEVINGTON & MORRIS, 28 Cannon-st., London
White and coloured sheep skin and Angora goat rugs
Peaux d'agneau blanches et teintes, et tapis de foyer de peaux de chèvre d'Angora
Decken von weissen und gefärbten Schaffellen und Häuten der Angoraziege
Pelli di pecora bianche e colorate, e tappetini di capra d'Angora
- 3 BOAK, ALLAN, 51 West Port, Edinburgh
Tanned, curried, and japanned goods, &c.
Peaux tannées, corroyées et vernies, etc.
Gegerbte, zugerichtete und lackirte Waaren etc
Pelli conciate, affaitate, verniciate, ecc.
- 4 CLARK, C. & J., Street, Somerset
Angora and sheepskin rugs
Tapis de foyer de peaux de chèvre d'Angora et de peaux d'agneau
Angora- und Schaffeldecken
Tappetini di pelle d'Angora e di pecora
- 5 COSTA ANDRADE, M. DE, & Co., 61 Wood-street, London
Ostrich feathers—*Plumes d'autruche*
Straussfedern—*Penne di struzzo*
- 6 DEED, JOHN S., & SONS, 451 Oxford-st., London
Morocco, roans, curried leather, enamelled hides, &c.
Maroquins, basanes, cuirs corroyés, peaux émaillées, etc.
Saffian, weissgahre und zugerichtete Leder, lackirte Häute etc.
Marrocchini, bazzane, cuoio affaitato, pelli verniciate
- 7 DIXON, JOHN, Manning-street, Bermondsey, London
Enamelled and japanned leather, &c., tanned by the exhibitor
Cuir émaillés et vernis, etc., tannés par l'exposant
Lackirtes Leder etc., gegerbt von dem Aussteller
Pelli verniciate e lustrate, ecc., conciati dall'espositore
- 8 EVANS, PARKER, SPARKE, & Co., Avonside, and Western Tanneries, Bristol (Appendix, p. 138)
Sole leather for ordinary and army purposes
Cuir pour semelles de chaussures militaires et ordinaires
Sohlenleder für gewöhnliche und Soldaten-Schuhe
Cuoio da suole ordinario e per armata
- 9 FLITCH, J. J., & SON, Leeds
Fancy dyed and dressed leather
Cuir de fantaisie teints et apprêtés
Buntgefärbte und dressirte Leder
Pelli di lusso colorate e preparate
- 10 *GEORGE & PERRETT, 102 Dean-street, Soho-square, London
Morocco and russia leather
Maroquins et cuirs de Russie
Saffian- und Juchtenleder
Marrocchino e vacchetta di Russia

- 11 *JONES, WILLIAM HENRY, & SON, 179 High-street, Borough, London
Enamelled and curried leather, &c.
Peaux émaillées et corroyées, etc.
Lackirtes und Zugeriehtes Leder etc.
Cuoio verniciato e lustrato, ecc.
- 12 McRAE, W. & G., 70 Basinghall-st., London
Buff hides, calf, deer, and chamois skins, gloving leather and gloves, &c.
Peaux de buffle, peaux de veau, de daim, de chamois, peaux mégissées pour la ganterie, gants, etc.
Büffelfelle, Kalb-, Hirsch- und Gemsenfelle, Handschuhleder, Handschuhe etc.
Pelli di buffalo, vitello, cervo, e camoscio, pelli da guanti, e quanti, ecc.
- 13 PUCKRIDGE, F., & NEPHEW, 5 Kingsland-place, Kingsland, London
Goldbeater's skin
Baudruches pour batteur d'or
Goldschlägerhaut
Pellicole da battiloro
- 14 PULLMAN, R. & J., 17 Greek-street, Soho, London
Foreign and English skins, &c.
Peaux anglaises et étrangères, etc.
Fremde und Englische Felle etc.
Pelli inglesi, straniere, ecc.
- 15 TUCKER, HENRY, Clarence-house, Durham-road, Holloway, London
Goldbeater's skin
Baudruches pour batteurs d'or
Goldschlägerhaut
Pellicole da battiloro
- 17 WEBB & SON, Combs Tannery, near Stow-market, Suffolk (Appendix, p. 138)
Leather machine bands, and leather goods
Cuir, courroies de machines, objets de mégisserie
Lederne Maschinenbänder und Lederwaaren
Bande di cuoio da macchina, e cuoiami
- 18 WILSON, WALKER, & Co., Leeds
Fancy leather and glue
Cuir de fantaisie, colle-forte
Gefärbtes Leder und Leim
Cuoiami di lusso e colla
- 19 WINTER & MASTERS, 24 Duke-st., Bloomsbury, London
Skins, hides, &c.
Peaux et cuirs, etc.
Felle, Häute etc.
Pelli, e cuoi, ecc.
- 20 WRIGHT, W. J., 19 Bridge-street, Manchester
Goldbeater's skin
Baudruches pour batteurs d'or
Goldschlägerhaut
Pellicole da battiloro

GROUP VI.

Apparatus and Processes used in the Common Arts.

Instruments et Procédés des Arts Usuels.

Apparate und Verfahren, angewandt in den gewöhnlichen Künsten.

Apparati e Processi adoperati nelle Arti Usuali.

Vice-President of the Jury	}	LORD RICHARD GROSVENOR, M.P.
<i>Vice-President du Jury</i>		
Vice-Präsident des Preisgerichts		
<i>Vice-Presidente dei Giurati</i>		
Associate	}	H. C. E. CHILDERS, Esq., M.P.
<i>Associé</i>		
Zweiter Vice-Präsident		
<i>Associato</i>		

CLASS XLVII.

Apparatus and Processes of the Art of Mining and Metallurgy.

Matériel et Procédés de l'Exploitation des Mines et de la Métallurgie.

Apparate und Prozesse, angewandt im Berg- und Hüttenwesen.

Apparati e Processi dell'Arte Mineraria e Metallurgica.

(For detailed classification, see p. xxi.)

(*Voir le système de classification, p. xxi.*)

(Für detaillirte Classification, siehe Seite xxi.)

(*Vedasi il sistema di classificazione, p. xxi.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

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Charles Forster, Esq. M.P.

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Henry Loveridge, Esq.

Richard Russell, Esq.

William Scholefield, Esq. M.P.

Warrington W. Smyth, Esq.

H. S. Thompson, Esq.

Henry Thring, Esq.

H. Hussey Vivian, Esq. M.P.

Joseph Whitworth, Esq.

In conjunction with the Council of the Royal Institution of Civil Engineers.

Captain Hichens, R.E. *Secretary.*

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

Warrington W. Smith, Esq. M.A. F.R.S. Pres. G.S.

ASSOCIATE—ASSOCIÉ

HULFSPREISRICHTER—ASSOCIATO.

C. Le Neve Foster, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BEAUMONT & LOCOCK, Captains, R.E., London
Rock-tunnelling machine

Machine à creuser les roches

Maschine zum Tunnelmachen

Macchina pel traforo delle roccie

2 BICKFORD, SMITH, & Co., Tuckingmill, Cornwall

A case of safety fuses

Fusées de sûreté

Eine Schachtel Sicherheitszündler

Cassa di spolette di sicurezza

3 CARRETT, MARSHALL, & Co., Dewsbury-road, Leeds

Hydraulic coal-cutting machine

Machine hydraulique à abattre la houille

Hydraulische Kohlen-Haumaschine

Macchina idraulica da tagliar carbon fossile

4 *COPELAND, GEORGE ALEXANDER, Ryder-street, Truro

Safety blasting cartridges

Fusées de sûreté pour le tirage des trous de mines

Sicherheits-Sprengpatronen

Cartucce di sicurezza per l'esplosione delle mine

5 DAGLISH, JOHN, Belmont Hall, Durham

Water-gauge for measuring ventilating pressures in mines

Jauge à eau pour indiquer la pression de la ventilation dans les mines

Wassermanometer für die Ventilation der Bergwerke

Staza ad acqua per misurare le pressioni ventilatrici nelle miniere

5A DOULTON & WATTS (see Class 17)

Plumbago crucibles and other fire-standing goods

Creusets de plombagine et autres objets allant au feu

Graphit-Schmelztiegel und andere feuerfeste Waaren

Crogioli di piombaggine ed altri oggetti a prova di fuoco

6 *FOGGIN, WILLIAM, Newcastle-upon-Tyne

Miners' lamps—*Lampes de sûreté*

Lampen für Bergleute—*Lanterne da minatori*

- 7 HYNAM, JOHN, 6 Princes-square, Wilson-street, Finsbury, London
Graphite, plumbago, and clay crucibles
Graphite, creusets de plombagine et d'argile
Schmelztiegel aus Graphit und Thon
Crogioli di grafite, piombaggine, ed argilla
- 8 JONES & LEVICK, Blaina, Newport, Monmouthshire (Appendix, pp. 139-40)
Coal-cutting machine; air-compressing engine
Machine à abattre la houille; machine à comprimer l'air
Kohl-Haumaschine; Luftcompressions-Maschine
Macchina da tagliar carbon fossile, motore comprimente aria
- 9 JULEFF, JOHN, Fore-street, Redruth
Cornish crucibles and black-lead pots
Creusets de Cornouailles, et pots de plombagine
Schmelztiegel von Cornwallis, Töpfe aus Graphit
Crogioli del Cornwall, e pignatte di piombaggine
- 10 McADAM, WILLIAM, 45 Hyde-park-street, Glasgow
Plumbago crucibles
Creusets de plombagine
Schmelztiegel aus Graphit
Crogioli di piombaggine
- 11 MUSEUM OF PRACTICAL GEOLOGY AND ROYAL SCHOOL OF MINES, Jermyn-street, London
A complete model of the apparatus and machinery employed in the Bessemer process of manufacturing steel
Modèle complet de l'appareil servant à la fabrication de l'acier d'après le procédé Bessemer
Ein vollständiges Modell der Apparate und Maschinerie zur Fabrication der Bessemerstahls
Modello completo degli apparati e meccanismi usati nel processo Bessemer pella fabbricazione dell'acciaio
- 12 PATENT PLUMBAGO CRUCIBLE COMPANY, Battersea Works, London (Appendix, p. 124)
Patent plumbago and other crucibles, portable furnaces, scorifiers, muffles, &c.
Creusets de plombagine et autres brevétés fourneaux mobiles, fours, mouffles, etc.
Patentirte Graphit- und andere Schmelztiegel, tragbare Schmelzöfen, Schlacköfen, Muffeln etc.
Crogioli di piombaggine e d'altro, fornaci portatili, forni da scoriazione, muffole, ecc. (patentati)
- 13 *SMAILE, R., & Co., Newcastle-upon-Tyne
Pressed fire-clay and black-lead crucibles
Argile comprimé et creusets de plombagine
Schmelztiegel aus gepresstem feuerfestem Thon und Graphit
Crogioli d'argilla da fuoco compressa, e crogioli di piombaggine
- 13A *STIDDER, J. G., 6 Palace Road, Lambeth, London
Fans for mining and other purposes
Soufflets-ventilateurs pour les mines, etc.
Luftfänge für Bergbau- und andere Zwecke
Soffietti ventilatori per miniere, ecc.

- 14 TURNER, CHARLES, 12 Four-posts-hill, Southampton
Model of ore sifter
Modèle d'une appareil pourta miser les minerais
Modell einer Erzsiebmaschine
Modello di vaglio da minerale

CLASSES XLVIII. and LXXIV.

Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests; Farm Buildings and Agricultural Works.

Matériel et Procédés des Exploitations rurales et forestières; Spécimens d'Exploitations rurales et d'Usines agricoles.

Ackerbaugeräthe und Verfahren, angewandt in der Cultur der Felder und Wälder; landwirthschaftliche Gebäude und Werke.

Apparati e Processi Agrari usati nella Coltivazione dei Campi e delle Foreste; costruzioni Rurali e officine agrarie.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

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Sir Alexander Y. Spearman, Bart.
Sir Samuel Morton Peto, Bart. M.P.
Somerset A. Beaumont, Esq.
George T. Clark, Esq.
Thomas Fairbairn, Esq.
John Fowler, Esq. P.I.C.E.
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William Hawes, Esq.
H. W. Meade King, Esq.
Henry Loveridge, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Warington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

In conjunction with a joint Committee consisting of Members of the Royal Agricultural Society of England, the Highland Society, and the Royal Agricultural Society of Ireland.

B. T. Brandreth Gibbs, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Jacob Wilson, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.
Thomas Webb, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

(For Exhibition at Billancourt, see App. p. 143.)

- 1 ALLEN, E. E., 40 Parliament-st., Westminster, London (exhibits also at Billancourt)
Portable steam-engine
Machine à vapeur locomobile

- Mobile Dampfmaschine
Motore a vapore portatile
- 2 AMIES, BARFORD, & Co., Peterborough (exhibit also at Billancourt)
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari
- 3 ASHBY & JEFFERY, Rutland-terrace Iron Works, Stamford (exhibit also at Billancourt) (Appendix, p. 143)
Agricultural machines, steam-engines &c.
Machines d'agriculture, machines à vapeur, etc.
Landwirthschaftliche Maschinen, Dampfmaschinen etc.
Macchine agricole, motori a vapore, ecc.
- 4 AVELING & PORTER, 72 Cannon-street, London (Appendix, p. 186)
Agricultural locomotive steam-engine
Moteur locomobile à l'usage des machines agricoles
Transportirbare Dampfmaschine für den Ackerbau
Locomotiva a vapore agricola
- 5 BALL, W., & SON, High-street, Rothwell, Northamptonshire
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari
- 6 BAMLETT, A. C., Thirsk, Yorkshire
Reaping and mowing machines
Moissonneuses et faucheuses
Ernte- und Mähmaschinen
Macchine da mietere e da falciare
- 7 BARROWS & CARMICHAEL, Banbury (exhibit also at Billancourt)
Agricultural portable steam engine of eight horse power
Moteur locomobile de la force de huit chevaux à l'usage des machines agricoles
Transportirbare Dampfmaschine von acht Pferdekraft für den Ackerbau
Motore a vapore portatile agricola della forza di otto cavalli
- 7A BEENY, E., Junr. (see class 26)
- 8 BENTALL, E. H., Heybridge Works, near Maldon (exhibits also at Billancourt)
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari
- 9 BEVERLEY IRON AND WAGGON COMPANY (Limited), Beverley (Appendix, p. 142)
Patent three-horse reaping machine (at Billancourt)
Moissonneuse brevetée mue par trois chevaux (à Billancourt)
Patentirte Erntemaschinen für drei Pferde (ausgestellt in Billancourt)
Macchina mitritrice a tiro a tre cavalli, patentata (a Billancourt)
- 10 BOYD, J., & Co., 48 Cannon-street, London
Agricultural and horticultural machinery
Instruments et appareils de l'agriculture et de l'horticulture
Machinerie für den Feld- und Gartenbau
Meccanismi agricoli ed orticoli
- 11 BRABY, J., & SON, 42 Newington Causeway, Southwark, London (exhibit also at Billancourt)
Water cart
Appareil d'arrosement
Wagen zum Sprengen
Carro irrigatorio
- 12 BRIGHAM & BICKERTON, Tweed Implementation Works, Berwick-on-Tweed
Patent reaping machine; horse rake (at Billancourt)
Moissonneuse brevetée; rateau à cheval (à Billancourt)
Patentirte Erntemaschine; Pferderechen (ausgestellt zu Billancourt)
Macchina mietitrice (patentata); rastrello a cavalli (a Billancourt)
- 13 BROWN, W., & MAY, C. N., North Wilts Foundry, Devizes
Thrashing machines and steam engines
Machines à battre le blé et machines à vapeur
Dresch- und Dampfmaschinen
Trebbiatoi e motori a vapore
- 14 CARSON & TOONE, Warminster, Wilts
Agricultural and dairy implements
Instruments d'agriculture et ustensiles de la laiterie
Ackerbau- und Milchwirtschaftsgeräthe
Utensili agrari e da cascina
- 15 CLARKE & SON, Brackley, Northamptonshire
Scythes—*Faux*
Sensen—*Falci*
- 16 CLAYTON, SHUTTLEWORTH, & Co., Lincoln (exhibit also at Billancourt) (App. pp. 146–9)
Portable, traction, and fixed steam engines, -thrashing machines, &c.
Machines à vapeur locomobiles, tractoires et fixes, machines à battre le blé, etc.
Transportable und stehende Dampfmaschinen, Dreschmaschinen etc.
Motori a vapore fissi, portatili, e a trazione, trebbiatoi, ecc.
- 17 COLEMAN & MORTON, London-road Iron Works, Chelmsford (exhibit also at Billancourt)
Agricultural implements and machines
Machines et instruments d'agriculture
Ackerbaugeräthe und Maschinen
Utensili e macchine agrarie
- 18 COPPARD, J., & Co., 84 Fleet-street, London
Improved roughing for horse-shoes
Système de ferrer les chevaux à glace
Verbesserte Weise Hufeisen zu schärfen
Perfezionamento nella ferratura a ghiaccio dei cavalli

- 19 DEAN, JOHN, Blenheim Foundry, Woodstock, Oxfordshire (exhibits also at Billancourt)
Patent sheep and feeding troughs
Rateliers-mangeoires à moutons brevetées
Patentirte Schaf- und Futtertröge
Trogoli per le pecore, e per foraggi (patentati)
- 20 DELL, W. R., 72 Mark-lane, London
Wheat-cleaning machines, mill-stones, &c.
(at Billancourt)
Machines pour le nettoyage du blé, meules, etc.
(à Billancourt)
Weitzlureinigungsmaschinen, Mühlsteine etc.
(ausgestellt zu Billancourt)
Macchina per mondar frumento, mole, etc. (a Billancourt)
- 21 FOWLER, J., & Co., 71 Cornhill, London
Steam plough
Charrue à vapeur
Dampfpflug
Aratro a vapore
- 22 FOX, WALKER, & Co., Atlas Iron Works, Bristol
Portable steam engine
Machine à vapeur locomobile
(Transportable) Dampfmaschine
Macchina a vapore portatile
- 23 FREER, JOHN, Rothley, near Loughborough
Dibbling machine
Plantoir
Pflanzmaschine
Foraterra
- 24 GARRETT, RICHARD, & SONS, Leiston Works, near Saxmundham, Suffolk (exhibit also at Billancourt) (Appendix, p. 149)
Agricultural machines, and steam engines
Machines agricoles et machines à vapeur
Ackerbau- und Dampfmaschinen
Macchine agrarie, e motori a vapore
- 25 GOULDING, W. & H. M., Patrick-street, Cork, and Westmoreland-street, Dublin
Manures
Engrais
Dünger
Concimi
- 26 HARTLEY, JOHN, Otley Mills, Leeds, York shire
Corn screen
Machine à cribler le blé
Kornsieb
Vaglio da grano
- 27 HILL & SMITH, Brierly Hill Iron Works, near Dudley
Agricultural implements
Instruments agricoles
Ackerbaugeräthe
Utensili agrari
- 28 HORNSBY, R., & SONS, Grantham
Steam engines, thrashing machines, ploughs, reapers, &c.
Machines à vapeur, machines à battre le blé, charrues, moissonneuses, etc.
Dampf- und Dreschmaschinen, Pflüge, Erntemaschinen etc.
Motori a vapore, trebbiatori, aratri, macchine da mietere, ecc.
- 29 HOWARD, J. & F., Britannia Iron Works, Bedford, and 4 Cheapside, London (exhibit also at Billancourt) (Appendix, pp. 150-3)
Steam ploughs and other agricultural implements
Charrues à vapeur et autres instruments agricoles
Dampfpflüge und andere Geräte des Ackerbaues
Aratri a vapore ed altri utensili agrari
- 30 *HUDSON, ALFRED, Baker's Cross Farm, Cranbrook, Kent
Apparatus for agricultural works relating to hop culture
Appareils agricoles servant à la culture du houblon
Ackerbaugeräthe für die Hopfenpflanzungen
Apparati per lavori agrari relativi alla cultura del luppolo
- 31 JAMES, I., Tivoli Works, Cheltenham
Liquid manure cart, &c. (at Billancourt)
Charrette pour le transport des engrais liquides, etc. (à Billancourt)
Zauchenwagen, etc. (ausgestellt zu Billancourt)
Corri pei concimi liquidi etc. (a Billancourt)
- 32 KEARSLEY, HENRY & GEORGE, North-street, Ripon
Grass-mowing and reaping machines
Faucheuses et moissonneuses
Grasmähe- und Ernte-Maschinen
Macchine da mietere e da falciare
- 33 LONDON MANURE COMPANY, 116 Fenchurch-street, London
Chemical manures
Produits chimiques pour engrais
Chemische Dünger
Concimi chimici
- 34 MARSHALL, SONS, & Co. (Limited), Gainsborough (exhibit also at Billancourt) (Appendix, p. 154)
Portable and fixed engines, thrashing machines, mills, &c.
Machines locomobiles et fixes, machines à battre le blé, système de meules, etc.
Transportable und stehende Dampfmaschinen, Dreschmaschinen, Mühlen etc.
Motori portatili e fissi, trebbiatori, mulini, ecc.
- 35 McLEAN & HOPE, 51 Timber Bush, Leith
Materials and products of Scottish agriculture
Matériel et produits de l'agriculture en Écosse

- Materialien und Producte des Schottischen Feldbaues
Materiali e prodotti di agricoltura scozzese
- 36 *McSHERRY, M., Limerick
 Agricultural boilers
Chaudière pour usages agricoles
 Landwirthschaftliche Kessel
Caldaje per usi agrari
- 38 NICHOLSON, W. N., Trent Iron Works, Newark (exhibits also at Billancourt)
 Hay-making and other agricultural machines
Faneuses et autres machines agricoles
 Maschinen zum Heumachen und für andere Zwecke des Feldbaues
Macchine agrarie per fienatura ed altro
- 39 NOONE & Co., 5, Stratford-place, Hastings
 Sewage manure, and model of works
Poudrette, et modèle d'usine
 Dünger gewonnen von den Cloaken, und Modell der Fabrik
Concimi di cloaca, e modello di officina
- 40 PACKARD, E., & Co., 6 Princes-street, Ipswich (Appendix, p. 155)
 Materials used in the manufacture of artificial manures
Produits employés à la fabrication des engrais artificiels
 Materialien, gebraucht in der künstlichen Düngerfabrication
Materiali usati nella manifattura di concimi artificiali
- 41 PARKES, PALMER, & HODGKINSON, Sutton Works, Birmingham
 Spades, shovels, forks, axes, &c.
Bêches, pelles, fourches, haches, etc.
 Spaten, Schaufeln, Gabeln, Aexte etc.
Vanghe, pale, forconi, accette, ecc.
- 42 PENNEY & Co. (Limited), 16 Broadgate, Lincoln
 Rotary corn separator, winnowing and dressing machine, &c. (at Billancourt)
Appareil rotatif pour l'épuration des grains, machine pour vanner et préparer le blé (à Billancourt)
 Centrifugalmaschine zum Trennen des Kornes, Kornschwingen und Reinigungsapparate etc. (ausgestellt in Billancourt)
Macchina rotatoria per scegliere, ventilare, e mondar il grano ecc. (a Billancourt)
- 43 PICKSLEY, SIMS, & Co. (Limited), Bedford Leigh, Lancashire (exhibit also at Billancourt)
 Agricultural machinery—*Machines agricoles*
 Ackerbaumaschinen—*Meccanismi agricoli*
- 44 RANSOMES & SIMS, Ipswich (exhibit also at Billancourt) (Appendix, pp. 156–163)
 Steam engines, thrashing machines, ploughs, mills, &c.
Machines à vapeur, machines à battre le blé, charrues, moulins, etc.
 Dampf- und Dreschmaschinen, Pflüge, Mühlen
Motori a vapore, trebbiatori, aratri, mulini, ecc.
- 45 THE READING IRON WORKS, Reading (Appendix, pp. 164–5)
 Steam engines and agricultural machinery
Machines à vapeur et instruments d'agriculture
 Dampfmaschinen und Maschinerie für den Feldbau
Motori a vapore, e meccanismi agricoli
- 46 RICHMOND & CHANDLER, Salford, Manchester (Appendix, p. 172)
 Chaff-cutting, corn-crushing machines
Haches-pailles, concasse-grain
 Maschinen zum Spreuschneiden und Kornzerquetschen
Macchine taglia-paglie, e stritolagrani
- 47 ROBEY & Co. (Limited), Canwick-road, Lincoln (exhibit also at Billancourt) (Appendix, pp. 166–9)
 Thrashing machines, steam engines, &c.
Machines à battre le blé, machines à vapeur
 Dresch- und Dampfmaschinen etc.
Trebbiatori, motori a vapore, ecc.
- 48 RUSTON, PROCTOR, & Co., Sheaf Iron Works, Lincoln (exhibit also at Billancourt)
 Thrashing machines, mills, engines, &c.
Machines à battre le blé, moulins, moteurs, etc.
 Dreschmaschinen, Mühlen, Dampfmaschinen
Trebbiatori, molini, motori, ecc.
- 49 SAMUELSON & Co., Britannia Works, Banbury (exhibit also at Billancourt)
 Agricultural implements
Instruments agricoles
 Ackerbaugeräthe
Utensili agricoli
- 50 SHEEN, THOMAS, Buckingham-road, Aylesbury
 Chaff machines, tin shovels, horse hoes, &c.
Haches-pailles, pelles d'étain, hoes à cheval
 Spreuschneide-Maschinen, Zinnschaufeln, Pferdehacken etc.
Macchine taglia-paglie, pale stagnate, zappe
- 51 SMITH, THOMAS, & SONS, Buckingham-road, Herstmonceux, Hurst-green, Sussex
 Truck baskets, sheep-feeding cribs, &c.
Paniers de bois, crèches à moutons, etc.
 Futterkörbe, Krippen für Schafe etc.
Panieri carruole, greppie da pecore, ecc.
- 52 SMITH, WILLIAM, Royal Iron Works, Kettering, Northamptonshire
 Agricultural machines
Machines agricoles
 Ackerbaumaschinen
Macchine agricole
- 53 SMYTH, J., & SONS, Peasenhall, near Yoxford, Suffolk (exhibit also at Billancourt)
 Drills, sowing machines, manure distributors
Semoirs, appareils pour la distribution des engrais
 Rill- und Säemaschinen, Apparate um den Dünger auszubreiten
Seminatori, macchine seminatrici, concimatori

- 54 SWINDELL & Co., Withymoor Works, Dudley
Spades, shovels, draining tools, &c.
Bêches, pelles, instruments de drainage, etc.
Spaten, Schaufeln, Werkzeuge um Entwässerungsgräben zu machen etc.
Vanghe, pale, arnesi per gli scoli, ecc.
- 55 *TASKER, W., & SONS, Waterloo Iron Works, Andover
Portable steam engine, thrashing and dressing machine
Machine à vapeur locomobile, machine à battre et à préparer le blé
Transportable Dampfmaschine, Dresch- und Reinigungsmaschine
Motore a vapore portatile, trebbiatoio e mondatoio
- 56 TAYLOR, FRANCIS, Church-street, Romsey, Hampshire
Model of patent apparatus for collecting and drying human excrement into guano
Modèle d'un appareil breveté pour recueillir les résidus des centres de population et les dessécher pour engrais, etc.
Modell eines patentirten Apparates um menschliche Excremente zu sammeln und in Guano zu verwandeln
Modello e apparato (patentato) per raccogliere e trasformare gli escrementi umani in guano
- 57 THOMSON, R. W., 3 Moray Place, Edinburgh
Portable steam crane, with differential rotary engine
Grue roulante à vapeur, avec machine à vapeur rotatoire différentielle
Mobiler Dampfkrahn, mit sich drehender Differentialmaschine
Gru a vapore portatile con motore rotante differenziale
- 58 TURNER, E. R. & F., St. Peter's Iron Works, Ipswich (Appendix, p. 171)
Agricultural engines, mills, &c.
Machines agricoles, moulins, etc.
Ackerbäummaschinen, Mühlen etc.
Macchine agricole, mulini, ecc.
- 59 UNDERHILL, W. S., Newport, Salop
Thrashing machines, horse-rakes, cultivators
Machines à battre le blé, rateaux mus par des chevaux, instruments aratoires
Dreschmaschinen, Pferdreden, Feldbaugeräthe
Trebbiatoi, rastrelli a cavalli, coltivatori
- 60 WALLIS, HASLAM, & STEEVENS, Basingstoke
Thrashing machines
Machines à battre le blé
Dreschmaschinen
Trebbiatoi
- 61 *WOODBOURNE, J., Park Iron Works, Kingsley, near Alton
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari

- 62 WOODS & COCKSEGE, Stowmarket, Suffolk (Appendix, p. 173)
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari

CLASS XLIX.

Apparatus used in Shooting, Fishing, &c.

Engins et Instruments de la Chasse, de la Pêche et des Cueillettes.

Apparate, gebraucht zur Jagd, zum Fischfang etc.

Apparati usati alla Caccia, Pesca, ecc.

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

COMMITTEE—COMITÉ
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Joseph Whitworth, Esq.

In conjunction with the Council of the Royal Institution of Civil Engineers.

MacLeod of MacLeod, Secretary.

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Col. Hon. H. F. Keane.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Major Edwards, R.E.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ALDRED, THOMAS, 126 Oxford-street, London

Archery and fishing-tackle

Équipement d'archers et appareils de pêche

Geräthe, gebraucht beim Bogenschiessen und Fischen

Balestreria, e piscatoria

2 BUCHANAN, JAMES, 28 St. Enoch Wynd,
Glasgow
Fish-hooks
Hameçons
Angelhaken
Ami

3 *BUSSEY, G. G., & Co., Dunn's Passage Fac-
tory, 485 New Oxford-street, London
Leather goods for shooting purposes
Équipement de chasse en cuir
Lederwaaren für die Jagd
Cose di cuoio ad uso di caccia

4 COMMISSIONERS OF IRISH FISHERIES, Dublin
Models of fishpasses, fishing apparatus, and
specimens of fish
Modèles de barrages disposés de façon à ce que
le poisson puisse remonter les cours d'eau,
appareils de pêche et spécimens de poissons
Modelle von Fischwehre, Fischgeräth, und
Muster von Fischen
Modelli di apparato per aiutare al pesce di sa-
lire i fiumi, apparato per pescare, campioni di
pesce

5 FARLOW, C., & Co., 191 Strand, London
Fishing rods, hooks, nets, artificial baits
Lignes, hameçons, filets, appâts artificiels
Angelruthen, Angelhaken, Netze, künstliche
Köder
Canne, ami, reti, esca artificiale

6 HOUNSELL, H. E., Pelican Twine Works,
Bridport
Fishing apparatus, prepared by patent pro-
cess for resisting the action of salt water
Appareils de pêche, fabriqués par un procédé
breveté pour résister à l'action de l'eau de
mer
Geräthe zum Fischen gegen die Einwirkung
des Leewassers durch einen patentirten
Process geschützt
Apparati da pesca preparati con processo pa-
tentato per resistere all' azione dell' acqua
salsa

7 PULLINGER, COLIN, Selsey, near Chichester
(Appendix, p. 174)
Traps for vermin
Pièges pour la destruction des animaux nui-
sibles
Fallen für Ungeziefer
Trappole per animali dannosi

8 RYDER, WILLIAM H., 48 Ellis-street, Bir-
mingham
Brass fishing winches, ferrules, &c.
Articles de pêche en laiton
Messingene Angelhaspeln, Beschläge (Ringe)
etc.
Rocchetti e ghiera da canna da pescare, ecc.

9 STUART, J. & W., Musselburgh
Fishing nets
Filets
Fischnetz
Reti

CLASS L.

Apparatus and Processes used in Agri-
cultural Works and in Works for the
Preparation of Food.

Matériel et Procédés des Usines Agricoles
et des Industries Alimentaires.

Geräthe und Verfahren, die entweder
in Agriculturarbeit oder in der
Nahrungsbereitung angewandt wer-
den.

Apparati e Processi usati nelle Officine
Agrarie, e nelle Officine per la Pre-
parazione dei Cibi.

(For detailed classification, see p. xxii.)

(*Voir le système de classification*, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)
(*Vedasi il sistema di classificazione*, p. xxii.)

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William Scholefield, Esq. M.P.
Warrington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

In conjunction with a joint Committee consisting of
Members of the Royal Agricultural Society of
England, the Highland Society, and the Royal
Agricultural Society of Ireland.

Major Malcolm, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

James C. Amos, Esq.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

C. Wren Hoskyns, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 ADMIRALTY, Whitehall, London (Appendix,
p. 261)

Cooking apparatus, and specimens of some of
the articles of food used in the Royal Navy
Appareil culinaire, et spécimens des aliments
consommés dans la Marine Royale

Bratsofen und Proben einiger Nahrungs-
mittel die in der Flotte verbraucht werden
Apparato culinario e saggi di cibi usati dalla
Marina Reale

- 2 **ATMOSPHERIC CHURN COMPANY (Limited)**
119 New Bond-street, London (exhibit also at Billancourt) (Appendix, p. 175)
Apparatus for making butter
Appareil pour faire le beurre
Apparate um Butter zu machen
Apparato per far butirro
- 3 ***BAKER, JOHN, Wisbeach, Cambridgeshire**
Corn-dressing machines
Machines à préparer le blé
Korn-Reinigungsmaschine
Macchina per mondar il grano
- 4 **BARNETT, S., 23 Forston-street, London**
Mineral water machinery
Appareils pour la fabrication des eaux minérales
Maschinerie zur Mineralwasser-Bereitung
Meccanismi per far acque minerali
- 5 **BAWDEN, PETER, 49 Norland-square, Notting-hill, London (exhibits also at Billancourt) (Appendix, p. 176)**
Model of patent brick-making machine
Modèle de machine brevetée à mouler les briques
Modell einer patentirten Maschine um Backsteine zu machen
Modello di macchina da far mattoni (patentata)
- 6 **BOURNE, STEPHEN, Headstone Drive, Harrow, Middlesex (Appendix, p. 177)**
Cask and vessels fitted with flexible diaphragm, and elastic valves, deodorised by patent process
Fûts et vases garnis d'un diaphragme flexible et de soupapes élastiques, désinfectés par un procédé breveté
Fässer und Gefässe, ausgestattet mit biegsamen Querwänden und elastischen Klappen, geruchlos gemacht durch einen patentirten Process
Botti e vasi muniti di diaframma flessibile, e valvole elastiche rese inodore per mezzo di un processo patentato
- 7 **BRADFORD, T., & Co., 63 Fleet-street, London (Appendix, pp. 178-9)**
Washing and drying machines
Machines à laver et sécher le linge
Wasch- und Trockenmaschinen
Macchine per lavare e asciugare pannilini
- 8 **CANADIAN WASHING MACHINE AND AGRICULTURAL IMPLEMENT COMPANY (Limited), Worcester**
Washing machine
Machine à laver le linge
Waschmaschine
Macchina per lavare
- 9 **CLARKE & DUNHAM, 48 Mark-lane, London**
Millstones and machinery for flour mills
Meules et mécanique de moulins
Mühlsteine, und Maschinerie für Mehlmühlen
Mole e per meccanismi mulini
- 10 **CLAYTON, H., & Co., Atlas Works, Woodfield-road, Harrow-road, London (exhibit also at Billancourt)**
Machines for making bricks, drain pipes, tiles, &c.
Machine à mouler les briques, les tuyaux de drainage, les tuiles, etc.
Maschinen um Backsteine, Wasserleitungsröhren und Ziegel etc. zu machen
Macchine per far mattoni, condotture, tegole
- 11 **COLLIER, LUKE, Wellington Works, River-street, Rochdale**
Confectioner's machines
Machines à l'usage des confiseurs
Maschinen für Zuckerbäcker
Macchine da confettieri
- 12 **CRESSY, T. S., Burton-on-Trent**
Patent barrel
Baril breveté
Patentirtes Fass
Barile patentato
- 13 ***DUFFIELD, JAMES, 2A Dean-street, Oxford-street, London**
Butter prints, moulds, bread plates, and dairy utensils
Estampes et moules à beurre, plateaux pour le pain, et ustensiles de la laiterie
Butterstempel und Formen, Brotteller und Milchwirtschafts-Utensilien
Stampi per burro, forme, teglie, e utensili per cascina
- 14 **FARROW & JACKSON, 18 Great Tower-street, London**
Iron wine bins, bar fittings, &c.
Caves de fer pour le vin en bouteilles, ustensiles de comptoir, etc.
Eiserne Weinkasten, Geräthe für die Schenkstube etc.
Compartimenti in ferro per vini, fornimenti per banco di birreria, ecc.
- 15 **FERRYMAN, REV. E. A., Privett Parsonage, Alton**
Churns
Barattes
Butterfässer
Zangole
- 16 **FLEET & Co., 159 East Street, Walworth, London (Appendix, p. 177)**
Patent steam soda-water machine, with bottling apparatus
Appareil à vapeur breveté pour fabriquer l'eau de Seltz, avec machine à boucher les bouteilles
Patentirte Dampfmaschine um Sodawasser zu machen und Apparat es auf Flaschen zu ziehen
Macchina a vapore patentato per far acqua di soda con apparato per imbottigliare
- 17 **JOLLY, R., 137 Cheapside, London**
Refrigerators
Glacières artificielles
Refrigeratoren
Sorbettiere

- 18 KEITH, GEORGE, 55 Great Russell-street**
 Bloomsbury, London
 Patent ice-safes, freezing powders, &c.
Appareils brevétés pour conserver la glace, poudres pour la production artificielle de la glace
 Patentirte Eisbehälter, Gefrierpulver
Refrigeratori patentati, polveri congelanti
- 19 KENT, GEORGE, 199 High Holborn, London** (Appendix, pp. 180-1)
 Knife-cleaning machines and articles of domestic utility; compound action mixing machine for confectioners and manufacturers
Machines à nettoyer les couteaux et objets d'utilité domestique; machine à mouvement composé pour mélanger, à l'usage des pâtisseries et des fabricants
 Messer-Reinigungsmaschinen und Artikel von häuslicher Nützlichkeit; Mischmaschine mit zusammengesetzter Bewegung für Zuckerbäcker und Fabricanten
Macchine per pulire coltelli ed altri oggetti d'uso domestico; macchina a movimento composto per mescolare all'uso dei confettieri e fabbricanti
- 20 *LUCAS, J., & Co., 27 Leman-street, White-chapel, London**
 Corn mills, flour-dressing machines, &c.
Moulins, machines à préparer la farine, etc.
 Kormmühlen, Mehlsiebmaschinen etc.
Mulini, buratti, ecc.
- 21 LYON, A., 32 Windmill-street, Finsbury London**
 Mincing and sausage-making machines, &c.
Machines pour hacher les viandes, et pour la fabrication des saucissons, etc.
 Maschinen zum Stampf- und Würstmaschinen etc.
Macchine per sminuzzare e far salsiccie, ecc.
- 21A MATCHWICK, WILLIAM, South Kensington Museum, London**
 Improved cheap filter
Filtre perfectionné à bon marché
 Verbesserte billige Filtrirmaschine
Filtro perfezionato a buon mercato
- 22 *MUNRO, WILLIAM, 3 High-street, Inverness, N.B.**
 Model houses for agricultural purposes, patent churn, &c.
Types d'habitation rurales, baratte brevetée, etc.
 Musterhäuser für Agriculturzwecke, patentirtes Butterfass etc.
Casa modello per usi agrari, zangole patentate
- 23 PONTIFEX, H., & SONS, Albion Works, York-road, King's-cross, London**
 Brewing and distilling apparatus
Appareil de brasserie et de distillerie
 Apparate zum Bierbrauen und Destilliren
Apparati per far birra e distillare
- 24 *RICHARDSON, I., 81 Brompton-road, London**
 Model of dough kneading machine
Modèle de pétrin mécanique
 Knetenmaschine
Modello di madia meccanica
- 25 RICHES & WATTS, Duke's Palace Iron Works, Norwich** (exhibit also at Billancourt)
 Patent grist mills
Moulins à blé brevétés
 Patentirte Kornmühle
Mulini da cereali patentati
- 26 ROBINSON, WILLIAM, Bridgewater**
 Machine for cleaning the inside of casks
Machine à nettoyer l'intérieur des barils
 Maschine um das Innere von Fässern zu reinigen
Macchina per pulire l'interno delle botti
- 27 SILICATED CARBON FILTER COMPANY, Church-road, Battersea, London**
 Filters, water-purifiers, &c.
Filtres, appareils de filtrage, etc.
 Filter, Wasserreiniger etc.
Filtri, depuratori dell'acqua, ecc.
- 28 SPENCER, THOMAS, 32 Euston-square, London**
 Vessels for magnetic purification of water, and models of a new mode of filtration
Vases pour la purification de l'eau au moyen de l'électricité; modèles d'un nouveau système de filtrage
 Gefässe für die magnetische Reinigung des Wassers, und Modelle einer neuen Filtrirmethode
Vasi per la purificazione magnetica dell'acqua, e modelli per un nuovo modo di filtrazione
- 29 SUMMERSCALES, W., & SONS, Coney-lane Mills, Keighley, Yorkshire**
 Washing, wringing, and mangling machines
Machines à laver, à tordre et à calandrer le linge
 Maschinen zum Waschen, Ausringen und Mangen
Macchine per lavare, spremere e manganare
- 30 TAYLOR, JOHN, 55 New Bridge-street, Manchester**
 Churns and washing machines
Barattes et machines à laver
 Butterfässer und Waschmaschinen
Zangole e macchine a lavare
- 31 TYE, JOHN, St. Mark's Iron Works, Lincoln**
 Machinery for flour mills
Appareils pour minoteries
 Apparate für Mehlmühlen
Meccanismi per mulini
- 32 WENHAM LAKE ICE COMPANY, 140 Strand, London**
 Refrigerators, or portable ice-safes
Appareils réfrigérants mobiles pour la conservation de la glace
 Refrigeratoren oder tragbare Eiskasten
Refrigeratori, ghiacciaie portatili
- 33 WHITE, D.B., M.D., Newcastle-upon-Tyne**
 Apparatus for preserving light wines, &c.
Appareil pour la conservation des vins légers
 Apparate um leichte Weine zu conserviren
Apparato per conservare i vini leggeri, ecc.

34 WHITEHEAD, JOHN, Albert Works, Preston
Drain pipe and brickmaking machinery
Machines à mouler les tuyaux de drainage et les briques

Maschinerie um Wasserleitungsröhren und Backsteine zu machen
Meccanismi per far condotture e mattoni

35 WHITMEE, J., & Co., 70 St. John's-street, Clerkenwell, London

Corn and flour mills, Tice's gas regulators and ventilating incubators

Moulins à blé, régulateurs à gaz de Tice, et couveuses artificielles à ventilateur

Korn und Mehlmühlen, Tice's Gasregulatoren und Incubatoren-Ventilator

Mulini da grano e farina, regolatori del gas di Tice e covatori ventilatori

36 WILLIAMSON, W., 133 High Holborn, London

Scouring, washing, calendering machines, &c.
Machines à essanger, à laver, à calandrer, etc.

Scheuer-, Wasch- und Plättmaschinen etc.

Macchine per ismacchiare, lavare, calendrare, ecc.

CLASS LI.

Apparatus used in Chemistry, Pharmacy, and in Tan-yards.

Matériel des Arts Chimiques, de la Pharmacie, de la Tannerie.

Apparate, die in der Chemie, Pharmacie und beim Gerben gebraucht werden.

Apparati usati nella Chimica, Farmacia, e nella Concia.

(For detailed classification, see p. xxii.)

(*Voir le système de classification, p. xxii.*)

(Für detaillirte Classification, siehe Seite xxii.)

(*Vedasi il sistema di classificazione, p. xxii.*)

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Captain Webber, R.E. *Secretary.*

JUROR—MEMBRE DU JURY:

PREISRICHTER—GIURATO.

Dr. Lyon Playfair, C.B., F.R.S.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

Professor T. C. Archer.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 *BAKER, WILLIAM J., Westgate, Wakefield
Improved gas apparatus, adapted to Bowditch's patent

Appareil perfectionné des usines à gaz (procédé breveté de Bowditch)

Verbesserter Gasapparat, anwendbar für Bowditch's Patent

Apparato da gas perfezionato adattato a quello patentato di Bowditch

2 BIRD, PETER HINCKES, 1 Norfolk-square, London

Gas carburettor

Appareil à carburer le gaz

Gas-Carburettor

Apparato usato nella fabbricazione del gas

- 3 BOWER, GEORGE, St. Neots, Huntingdonshire
Drawings of, and apparatus used in, the manufacture and distribution of gas
Appareils pour la production et la distribution, du gaz; dessins d'appareils à gaz
Apparate, die in der Fabrication und Vertheilung von Gas gebraucht werden, und Zeichnungen davon
Apparati, e disegni relativi, usati nella fabbricazione e distribuzione del gas
- 4 CARR, THOMAS, Richmond-road, Montpelier, Bristol
Carr's patent disintegrator
Machine brevetée à broyer et pulvériser les produits minéraux
Carr's patentirter Disintegrator
Stritolatore patentato di Carr
- 4A CLIFF, J., & SON (see Class 65.)
Fire-clay retorts
Cornues d'argile réfractaire
Retorten von feuerfestem Thon
Storte d'argilla a prova di fuoco
- 5 HUXHAMS & BROWN, Commercial-road, Exeter
Machines used in tan-yards; bark mills
Matériel des ateliers de tannerie; machines pour la préparation des matières tannantes
Maschinen, die in der Lohgerberei gebraucht werden; Lohmühlen
Macchine usate nelle concie, mulini per la scorza tannina
- 6 JOHNSON, MATTHEY, & Co. (see Class 40)
Platinum apparatus
Appareil de platine
Platina-Apparat
Apparato di platina
- 7 PORTER, J. T. B., & Co., Gowts Bridge Works, Lincoln (Appendix, p. 182)
Working model of apparatus for producing gas from coal, oil, tallow, and other substances
Modèle en mouvement d'un appareil pour l'extraction du gaz de la houille, des huiles, des corps gras, etc.
Arbeitendes Modell eines Apparates, um Gas von Kohlen, Oel, Talg und anderen Substanzen zu machen
Modello operativo di un apparato per produr gas dal carbone, l'olio, il sevo, ed altre sostanze
- 8 STOTHERT & PITT, Newark Foundry, Bath
Machines for rolling and tanning leather
Machines à comprimer et à tanner les cuirs
Maschinen zum Pressen und Gerben des Leders
Macchine per comprimere e conciare il cuoio
- 9 TYLER, JOHN H., 18 Abbey-street, Bermondsey, London (Appendix, p. 182)
Apparatus used in tan-yards
Matériel des ateliers de tannerie
Apparate, die in der Lohgerberei gebraucht werden
Apparato usato nelle concie

- 10 WILSON, JAMES, 2 Royal Exchange-buildings, London
Hydraulic centre valve for working gas purifiers
Appareil de soupapes hydrauliques pour l'épuration des gaz
Hydraulisches Centralventil für Gasreinigungs-Apparate
Valvola centrale idraulica per i purificatori del gas in azione

CLASS LII.

- Prime-Movers, Boilers, Engines, &c. specially adapted to the requirements of the Exhibition (Appendix, p. 183)
Moteurs, Générateurs et Appareils mécaniques spécialement adaptés aux besoins de l'Exposition.
Hauptbewegungskräfte, Dampfkessel, Dampfmaschinen etc., besonders geeignet für die Bedürfnisse der Ausstellung.
Motori, Caldaie, Macchine, ecc., specialmente adattati ai bisogni dell'Esposizione
(For detailed classification, see p. xxii.)
(Voir le système de classification, p. xxii.)
(Für detaillirte Classification, siehe Seite xxii.)
(Vedasi il sistema di classificazione, p. xxii.)

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J. Scott Russell, Esq. M.A., F.R.S.ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.
Captain Beaumont, R.E.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 APPLEBY BROTHERS, Emerson-street, Southwark, London (Appendix, p. 191)
Six-ton steam crane, turns, travels, and alters radius by steam or hand; donkey-engine or steam feed-pump; self-acting skip for minerals, ballast, &c.
Grue à vapeur, force 6,000 kilos; elle oriente marche et lève ou baisse la flèche, à vapeur ou à la main; pompe alimentaire à vapeur; sauteuse automatique pour minéraux, etc.
Dampfkrahn, um 120 Centner zu heben, mit Drehung, Hin- und Herbewegung und Radiusveränderung mittelst Dampf- oder Handarbeit; Dampfpumpe; Förderkasten mit selbstthätiger Bodenklappe
Gru a vapore da sei tonnellate, che svolge, cammina e si allunga o si scorcia a vapore od a mano; pompa alimentare a vapore; secchia automatica per alzar minerali ed altri
- 2 AVELING & PORTER, 72 Cannon-street, London (Appendix, p. 186)
Road locomotive
Locomotive pour les chemins ordinaires
Strassenlocomotive
Locomotive stradali
- 4 *BOWSER & CAMERON, Springfield Iron Works, Glasgow
Crane
Grue
Krahn
Gru
- 5 BROWN, WILSON, & Co., 80 Cannon-street, London (Appendix, p. 306)
Donkey steam pump
Machine d'alimentation à vapeur
Dampfpumpe
Pompa a vapore detta 'donkey'
- 6 CARRETT, MARSHALL, & Co., Sun Foundry, Leeds
Steam pump
Pompe à vapeur
Dampfpumpe
Pompa a vapore
- 7 CROGGON & Co., Glasgow, Liverpool, & 34 Bread-street, London
Dry-hair and inodorous felt
Feutre de poil séché, inodore
Trockenes Haar und geruchloser Filz
Feltro, pelo asciutto, ed inodoro
- 8 DONKIN, B., & Co. (see Class 53, and Appendix, p. 187)
Steam pipes, shafting, universal couplings, pulleys, &c.
Conduites de vapeur, arbres de couche, accouplements universels, poulies, etc.
Dampfrohren, Schafte, allgemeine Verbindungen, Rollen etc.
Condotti di vapore, assi, accoppiamenti universali, pulegge, ecc.
- 9 DIXON & HARRIS, London
Welsh coal used under the boilers
Houille du Pays de Galles pour la génération de la vapeur
Walliser Kohle für Dampfkessel
Carbon fossile del paese di Galles da vapore
- 10 FOWLER & Co., Leeds
Traction Engine
Machine à traîner sur les routes ordinaires
Zugmaschine für gemeine Landstrassen
Locomotiva stradale
- 11 FOX, WALKER, & Co., Bristol
Horizontal steam engine
Machine à vapeur horizontale
Horizontale Dampfmaschine
Motore a vapore orizzontale
- 12 GALLOWAY, W. & J., & SONS, Knott Mill Iron Works, Manchester (Appendix, p. 190)
Steam engine and boilers
Machine à vapeur et chaudières
Dampfmaschine und Kessel
Motore a vapore e caldaie
- 13 GREEN, E., & SONS, Wakefield
Fuel economiser
Appareil à économiser le combustible
Apparat um Brennmaterial zu sparen
Risparmia-combustibile
- 14 HART, DAVID, 244 Whitechapel-road, London
Patent improved weighing machine, without loose weights
Pont à bascule breveté, sans poids détachés
Patentirte verbesserte Wage, ohne abgesonderte Gewichte
Macchina per pesare, perfezionata, senza pesi sciolti (patentata)
- 15 HEBURN, I. & T., & SONS, Southwark, London
Driving belts
Courroies de machines
Treibriemen
Bande comunicanti moto
- 17 HICK, HARGREAVES, & Co., Soho Iron Works, Bolton
Steam engine, &c.
Machine à vapeur, etc.
Dampfmaschine etc.
Macchina a vapore, ecc.
- 18 HOWARD, J. & F., Britannia Iron Works, Bedford, & 4 Cheapside, London (App. p. 152)
Patent safety boiler
Chaudière de sûreté, brevetée
Patentirter Sicherheitsdampfkessel
Caldaia di sicurezza (patentata)
- 19 INDIA RUBBER, GUTTA PERCHA, & TELEGRAPH WORKS COMPANY (Limited)
Driving belts
Courroies de machines
Treibriemen
Bande comunicanti moto

- 20 NORTH BRITISH RUBBER COMPANY** (Limited), 4 Cannon-st., Lond. (App. pp. 188-9)
Driving belts, and washers
Courroies de machines, et rondelles
Treibriemen und ringförmige Scheiben zum Dampfabschluss etc.
Bande comunicanti moto e cercini
- 21 PORTER, C. T.**, care of the Whitworth Co. (Limited), Manchester (App. pp. 204-6)
Steam engines and governor
Machine à vapeur, et régulateur
Dampfmaschinen und Regulatoren
Macchine a vapore e regolatore
- 22 RANSOMES & SIMS**, Ipswich (Appendix, pp. 156-163)
Improved portable steam engines, with apparatus for economising fuel
Machines à vapeur locomobiles perfectionnées avec appareil pour économiser le combustible
Verbesserte locomobile Dampfmaschinen, mit Apparat Brennmaterial zu sparen
Macchine a vapore portatili perfezionate, con apparato per risparmiare combustibile
- 23 RUSSELL, G., & Co.**, 7 Exchange-place, Glasgow
Portable steam crane
Grue roulante à vapeur
Tragbarer Dampfkrahn
Gru a vapore portatile
- 24 RUSTON, PROCTOR, & Co.**, Locomotive Works, Lincoln
Locomotive
Locomotive
Locomotive
Locomotiva
- 25 SHANKS, A., & SON** 27 Leadenhall-street, London (exhibit also at Billancourt)
Steam travelling crane
Grue roulante à vapeur
Dampfkrahn mit Locomotion
Gru loco-mobile a vapore
- 26 SHARP, STEWART, & Co. (Limited)**, Atlas Works, Manchester
Injectors
Injecteurs 'Giffard'
Injectoren
Iniettori
- 27 SPENCE'S PATENT COMPOSITION COMPANY**, 19 Buckingham Street, Strand, London
Non-conducting covering for steam boilers, pipes, &c.
Ciment non-conducteur pour couvrir les chaudières, les tuyaux, etc.
Nicht leitender Cement zum Bekleiden von Dampfkesseln, Röhren u.s.w.
Copertura non conducente per coprire i tubi del vapore, ecc.
- 28 STOTHERT & PITT**, Newark Foundry, Bath
Steam travelling crane
Grue roulante à vapeur
Dampfkrahn mit Locomotion
Gru loco-mobile a vapore
- 30 TANGYE BROTHERS**, Clement-street, Birmingham (Appendix, pp. 192-3)
Lifting jacks, pulley blocks, &c.
Cric à soulever les fardeaux, poulies, mofles
Winden, Flaschenzüge etc.
Arganelli per sollevare gravi, bozzelli da pulezze, ecc.
- 31 TANNED LEATHER COMPANY**, Armit Works, Greenfield, near Manchester
Leather driving belts
Courroies de machines
Treibriemen
Bande comunicanti moto
- 32 TAYLOR, JAMES, & SONS**, Britannia Works, Birkenhead (see Class 66).
Locomotive steam crane
Grue à vapeur locomobile
Dampfkrahn mit Locomotion
Gru loco-mobile a vapore
- 33 TYLER, HAYWARD, & Co.**, 84 and 85 Whitecross-street, St. Luke's, London
High-pressure boiler
Chaudière à haute pression
Hochdruck-Dampfkessel
Caldia a vapore di alta pressione
- 34 WHITE, JOSEPH**, London
Lubricators
Appareils de graissage
Schmierapparat
Apparati per lubrificare
- 35 WHITWORTH COMPANY** (Limited), Manchester (Appendix, pp. 204-6)
Steam engines
Machines à vapeur
Dampfmaschinen
Macchine a vapore

CLASS LIII.

Machines and Apparatus in general.
Machines et Appareils de la Mécanique Générale.
 Maschinen und Apparate im allgemeinen.
Macchine e Apparat in Generale.

(For detailed classification, see p. xxii.)
 (Voir le système de classification, p. xxii.)
 (Für detaillirte Classification, siehe Seite xxii.)
 (Vidasi il sistema di classificazione, p. xxii.)

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PREISRICHTER—GIURATI.

The Earl of Caithness.
 Robert Mallet, Esq., M.I.C.E., F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

John Anderson, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 *ARTINGTON, JOSEPH, Huddersfield
 Magnetizing machine
Machine à aimanter
 Magnetische Maschine
Macchina per calamitare
- 2 *BAILLY, DURAND, MESNARD, & POIRIER, 4
 Agar-street, Strand, London
 Ordnance wheel, turn-table, railway axle-box,
 as illustrations of patent rolling friction
Roue d'affût, plaque tournante, boîte à graisse
pour les voitures de chemin de fer, présentées
comme exemples d'un système breveté de frot-
tement
 Rad für Geschütze, Drehscheibe, Eisenbahn-
 Achsenbüchse, als Illustrationen der patent-
 tirten rollenden Reibung
Ruota d'ordinanza, piattaforma rotante,
mozzo di ruota ferroviaria ad illustrare la
frizione rotante patentata

- 3 BAINES, W. N., Lancefield Brass Foundry,
 Glasgow
 Brass fittings for steam engines and boilers
Pièces détachées en laiton, de machines à vapeur
et de chaudières
 Messingwaaren für Dampfmaschinen und
 Dampfkessel
Fornimenti d'ottone per motori a vapore e
caldaie
- 3A BARCLAY, ANDREW, Caledonian Foundry,
 Kilmarnock, N.B.
 Injector
Injecteur
 Injector
Iniettatore
- 4 BASTIER, JEAN U., 17 Gracechurch-street,
 London
 Patent chain-pump
Noria brevetée
 Patentirte Kettenpumpe
Pompa a catena patentata
- 5 BERNAYS, JOSEPH, 18 Woburn-place, Russell-
 square, London
 Improved patent centrifugal pumps
Pompes à force centrifuge perfectionnées et
brevetées
 Verbesserte patentirte Centrifugal-Pumpen
Pompe centrifughe perfezionate (patentate)
- 6 BOULTON, S. B., 39A King William-street,
 City, London, and 54 Rue Caumartin, Paris
 (Appendix, p. 195)
 Improved apparatus for timber preserving
 purposes
Appareil perfectionné pour la conservation du
bois
 Verbesserter Apparat zur Conservirung von
 Holz
Apparato perfezionato per uso della conserva-
zione del legname
- 7 *BROWN, BENJAMIN, 43 Oakley-street, Lam-
 beth, London
 Spring lever oil feeder
Appareil de graissage avec levier à ressort
 Schmierapparat mit Feder
Apparato per lubrificare con lieva a molla
- 8 CARRETT, MARSHALL, & Co. (see Class 47)
 High and low pressure condensing engine;
 hydraulic reciprocating and rotative power
 engine
Moteur à condensation à haute et à basse pres-
sion; moteur hydraulique avec mouvements de
va-et-vient, et rotatoire
 Hoch- und Niederdruck-Condensations-Ma-
 schine; abwechselnde und drehende Wasser-
 maschine
Motore a condensazione di alta e bassa pres-
sione; motore idraulico a movimenti scam-
bievoli e rotatori
- 8A DAGLISH, J. (see Class 47)
 Water-gauge—Jauge à eau
 Wassermesser—Indicatore d'acqua

- 9 DEFRIES, NATHAN**, Diana-place, Euston-road, London
Dry gas meters with rotary and slide valves
Compteurs à gaz sans eau, avec soupapes tournantes et à coulisse
Gasmesser ohne Wasser mit rotirenden und Schiebventilen
Misuratori di gas a secco con valvole rotatorie e a diaframma
- 10 DE LA BARRE, A.**, 54 Curzon-street, Mayfair, London
Steam plate press, &c.
Presse des plaques à vapeur
Dampfplattenstreckwerk
Soppressa di lastre a vapore
- 10A DENISON**
Weighing blocks, &c.
Bascules, etc.
Wagebalken etc.
Bilancioni, ecc.
- 11 DEWRANCE, J., & Co.**, 176 Great Dover-street, Borough, London
Pressure and vacuum gauges, steam fittings, &c.
Manomètres, et jauges du vide, pièces détachées de machines à vapeur, etc.
Manometer für Druck und Vacuum, Theile von Dampfmaschinen etc.
Staze di pressione, e di vacuo, fornimenti per vapore, ecc.
- 12 DONKIN, B., & Co.**, Bermondsey, London (Appendix, p. 185)
Steam engine (patent horizontal)
Machine à vapeur horizontale, brevetée
Dampfmaschine (patentirte horizontale)
Motore a vapore orizzontale patentato
- 13 EADES, W., & SON**, Lichfield-street, Birmingham
Patent pulley blocks, engineer's tools, &c.
Poulies mouflées brevetées, outils, etc.
Patentirter Flaschenzug, Werkzeuge für Maschinenbaner etc.
Bozzelli patentati, arnesi da ingegnere, ecc.
- 13A ELECTRO-MAGNETIC & ELECTRO-PLATE COMPANY (Limited)**, 17 Bath-street, Birmingham
Electro-motive engine
Moteur électro-magnétique
Maschine, durch Electricität getrieben
Motore electro-magnetico
- 14 GAS METER COMPANY**, 238 Kingsland-road, London
Consumers, gas and water meters, &c.
Compteurs à gaz et à eau, etc.
Consumer, Gas- und Wassermesser etc.
Misuratori di gas e da acqua per consumatori, ecc.
- 15 GLOVER, G., & Co.**, Ranelagh Works, Ranelagh-road, London
National standard gasometers, and patent dry gas meters
Gazomètres nationaux modèles, compteurs à gaz sans eau (brevetés)
- Nationale Original-Gasometer, und patentirte Gasmesser ohne Wasser
Gasometri nazionali tipo, e misuratori di gas a secco patentati
- 16 GLOVER, THOMAS**, Clerkenwell-green, London
Dry gas meters, gas holders, &c.
Compteurs à gaz sans eau, réservoirs de gaz
Gasmesser ohne Wasser, Gasbehälter etc.
Misuratori di gas a secco, serbatoi di gas, ecc.
- 17 GREEN, E., & SONS** (see Class 52)
Fuel economiser for steam boilers (see Agricultural shed)
Appareil de machine à vapeur pour économiser le combustible (voir le Bâtiment d'Agriculture)
Apparat für Dampfkessel, um Brennmaterial zu sparen
Risparmia-combustibile per caldaie a vapore
- 18 GWYNNE & Co.**, Essex-street Works, Strand, London
Portable and fixed engines, turbines, pumps
Machines locomobiles et fixes, turbines, pompes
Transportirbare und stehende Dampfmaschinen, Turbinen, Pumpen
Motori portatili e fissi, turbine, pompe
- 19 HILL, J. C., & Co.**, Oakfields Works, Newport
Rotary steam engines
Machine à vapeur rotatoire
Rotations-Dampfmaschinen
Motori a vapore rotatori
- 20 *HYDRAULIC TUBE DRAWING COMPANY, 14**
Wharf, Macclesfield-street North, London
Seamless cold drawn steel tubes
Tubes d'acier sans soudure étirés à froid
Kalt gezogene Stahl-Röhren, ohne Loth
Tubi d'acciaio senza costura stesi al freddo
- 21 KENNEDY'S PATENT WATER METER COMPANY (Limited)**, Kilmarnock, Scotland
Water meter
Compteur à eau
Wassermesser
Misuratore ad acqua
- 22 LAMBERT BROTHERS**, The Alpha Tube and Fitting Works, Walsall
Wrought-iron tubes for water, steam, and gas
Tubes en fer forgé pour appareils à eau, à vapeur, et à gaz
Schmiedeeiserne Röhren für Wasser, Dampf und Gas
Tubi in ferro battuto per acqua, vapore, e gas
- 23 LAMBERT, T., & SONS**, Short-street, Lambeth, London
Brass and iron fittings for water and gas, steam valves, pumps, &c.
Pièces détachées en laiton et en fer pour appareils à eau et à gaz, soupapes d'accès, pompes
Messing- und Eisenwaaren für Wasser- und Gasanlagen, Dampfventile, Pumpen etc.
Fornimenti di ferro e d'ottone per acqua e per gas, valvole per vapore, pompe, ecc.

- 23A LEONI, SIGISMUND, 34 St. Paul's-street, London**
Gas burners, gas stoves, taps, &c., of 'adamas'
Becs à gaz, poêles à gaz, robinets, etc., d' 'adamas'
Gasbrenner, Gasöfen, Hähne etc. von 'Adamas'
Becchi da gas, stufe a gas, cannelle, ecc., di 'adamas'
- 24 LLOYD, CHARLES, 70 Guildford-street, Southwark, London**
Noiseless blowing fan
Soufflet fonctionnant sans bruit
Geräuschloser Fächer
Ventaglio che funziona senza romore
- 25 LLOYD & LLOYD, Albion Tube Works, Birmingham**
Wrought-iron tubes and fittings
Pièces détachées et tubes en fer forgé
Röhren und Geräthe aus Schmiedeeisen
Fornimenti e tubi di ferro battuto
- 26 LONDON & WESTMINSTER METER COMPANY, Lupus-street, London**
Water and gas meters
Compteurs à eau et à gaz
Wasser- und Gasmesser
Misuratori per acqua e per gas
- 27 *MARTIN, F., 17 Gracechurch-street, London**
Models of various machines
Modèles de machines diverses
Modelle verschiedener Maschinen
Modelli di varie macchine
- 28 MERRYWEATHER & SONS, Long Acre, and Lambeth, London (Appendix, pp. 196-7)**
Steam and hand fire engines; fire-escape; hoses, buckets, &c.
Pompes à incendie à main et à la vapeur; appareil de sauvetage en cas d'incendie; tuyaux, seaux, etc.
Dampf- und Handfeuerspritzen; Rettungsleitern; Wasserschlänche, Feuereimer u. s. w.
Pompe da incendio a mano e a vapore; scala per salvare dall' incendio; tubi, secchie, ecc.
- 29 MOORE, E., & Co., 55 Warren-street, Fitzroy-square, London**
Pressure and water gauges, steam fittings, &c.
Manomètres et indicateurs de niveau d'eau; pièces détachées de machines à vapeur, etc.
Druck- und Wasser-Manometer, Zubehör von Dampfmaschinen etc.
Staze a pressione, e ad acqua, fornimenti per vapore, ecc.
- 30 NADAL, J., & Co., 13 Newman-st., London**
Machinery for fountains
Mécanique de jet-d'eau
Springbrunnen-Maschinerie
Meccanismo per getti d'acqua
- 31 NEWTON & BRADDOCK, Globe Meter Works, Oliver-street, Oldham**
Gas meters, &c.
Compteurs à gaz, etc.
Gasmesser etc.
Misuratori per gas, ecc.
- 32 *NICHOLSON, W. N., Trent Iron Works, Newark**
Steam hoisting engine
Grue à vapeur
Dampfmaschine zum Aufwinden
Gru a vapore
- 33 NORTH MOOR FOUNDRY COMPANY, North Moor, Oldham**
Turbines, centrifugal pumps, fans, blast engines, steam engines, &c.
Turbines, pompes à force centrifuge, soufflets, machines soufflantes, machines à vapeur, etc.
Turbinen, Centrifugal-Pumpen, Fächer und Dampfgebläse, Dampfmaschinen etc.
Turbine, pompe centrifughe, ventilatori, macchine soffianti, motori a vapore ecc.
- 34 *ORKNEY, EARL OF, 3 Ennismore-pl., London**
Rotary steam engine
Machine à vapeur rotatoire
Rotirende Dampfmaschine
Motori a vapore rotatori
- 35 PAUL, MATTHEW, & Co., Levenford Works, Dumbarton, Scotland (Appendix, pp. 198-9)**
Steam windlass for ship's deck, with double action pumps attached
Manivelle à vapeur pour pont de navires, avec pompes à double effet
Dampfwinde für Schiffe, verbunden mit einer doppelt wirkenden Pumpe
Argango a manubrio a vapore per ponte di nave, con pompe a doppia azione annesse
- 36 *ROBERTS, WILLIAM, West Ferry-road, Millwall, London**
Steam fire engine and steam pump
Pompe à incendie à la vapeur, pompe à la vapeur
Dampfweuerspritze und Dampfmaschine
Pompa da incendio a vapore, e pompa a vapore
- 37 ROYAL SOCIETY FOR THE PROTECTION OF LIFE FROM FIRE, 59 Ludgate-hill, London (Appendix, p. 200)**
Fire-escape
Appareil de sauvetage en cas d'incendie
Rettungsmaschine
Scappa-incendio
- 38 RUSSELL, J., & Co., 69 Upper Thames-street, London (Appendix, p. 201)**
Marine boiler tubes, gas tubes, and fittings
Tubes de chaudières à l'usage de la marine, tuyaux, etc. pour la conduite du gaz
Schiffsdampfkesselhöhren, Gasröhren und Zubehör
Tubi per caldaia navale, tubi per gas, e fornimenti
- 39 RUSSELL, JAMES, & SONS, Crown Tube Works, Wednesbury**
Wrought-iron tubes for gas, steam and water boiler tubes, &c.
Tuyaux forgés pour la conduite du gaz, tubes de chaudières, etc.
Schmiedeeiserne Röhren für Gas, Dampfkesselhöhren etc.
Tubi per gas di ferro battuto, tubi da caldaia per vapore e per acqua, ecc.

- 40 SHAND, MASON, & Co., 75 Upper Ground-street, London
Steam and hand fire engines, pumps, &c., also portable fire engine invented by the late Captain Fowke, R.E., and adopted by the War Department
Pompes à incendie ordinaires et à vapeur, pompes, etc.; pompe à incendie portative inventée par feu le Capitaine Fowke, R.E., et adoptée par le Ministère de la Guerre
Dampf- und Handfeuerspritzen, Pumpen etc., sowie tragbare Feuerspritzen, eine Erfindung des verstorbenen Capitain Fowke, R.E., adoptirt vom Kriegsministerium
Pompe da incendio a vapore, e a mano, pompe, ecc., ed anche pompe da incendio portatili inventate dal defunto Capitano Fowke (Genio Militare) e adottate dal Ministero della Guerra
- 40A SWANN, J. R., 21 Leith-walk, Edinburgh (Appendix, p. 194)
Patent safety valve for steam boilers
Soupape de sûreté pour chaudières
Patentirtes Sicherheitsventil für Dampfkessel
Valvola di sicurezza per caldaia à vapore (patentata)
- 40B SIEMENS, C. W. (see Class 64)
Governor, pyrometer, &c.
Régulateur, pyromètre, etc.
Regulator, Hitzemesser u. s. w.
Regolatore, pirometro, ecc.
- 41 TANGYE BROTHERS, Clement-street, Birmingham (Appendix, pp. 192–3)
Machines for cutting and punching iron, and for lifting heavy weights
Machines à percer et à découper le fer, et pour la manœuvre des fardeaux
Maschinen zum Schneiden und Durchlöchern des Eisens, und zum Aufheben grosser Gewichte
Macchine per tagliare e punzonare il ferro, e per sollevare gravi pesi
- 42 TANNED LEATHER COMPANY, Armit Works, Greenfield, near Manchester
Leather straps for machinery, leather hose
Courroies de machines, tuyaux de cuir
Treibriemen für Maschinen, lederne Wasserschläuche
Cigne di cuoio per meccanismi, condotti di cuoio
- 43 *TERRELL, W., & SONS, 6 Welsh Back, Bristol
Ward's patent packing for steam engines
Étoupage breveté de 'Ward' pour machines à vapeur
Ward's patentirte Stopfbüchsen für Dampfmaschinen
Ristoppamento Ward per stantuffi, ecc. di macchine a vapore (patentato)
- 44 THOMSON, R. W., 3 Moray-place, Edinburgh
Differential rotary steam engine
Machine à vapeur rotatoire différentielle
Differential-Dampfmaschine mit Kreisbewegung
Motore rotatorio a vapore differenziale
- 46 *VINCENT, JOHN, 8 Buckingham-street, Adelphi, London
Direct acting steam engine
Machine à vapeur agissant directement
Direct wirkende Dampfmaschine
Motore a vapore ad azione diretta
- 47 WALKER, T., & SON, 58 Oxford-street, Birmingham
Water meters, ships' logs, sounding machines
Compteurs à eau, lochs, appareils de sondage
Wassermesser, Loge für Schiffe, Maschine zum Sondiren
Misuratori ad acqua, lò di navi, macchine per scandagliare
- 48 WEST & GREGSON, Union-street, Oldham
Station gas meters and governors, & apparatus used in gas works
Compteurs à gaz et régulateurs, et matériel des usines à gaz
Gasmesser und Regulatoren und Apparate, gebraucht in Gasfabriken
Misuratori e regolatori di gas per stazioni, e apparati usati nelle officine del gas
- 49 WESTON, T. A., 25 Temple-row, Birmingham
Hoisting apparatus, dynamometer, &c.
Grue de chargement, dynamomètre, etc.
Apparat zum Aufwinden, Dynamometer etc.
Apparati per issare, dinamometro, ecc.
- 50 *WHITE, JOSEPH, 7 Trinity-street, Borough, London
Oil feeders, and grease lubricators, &c.
Appareils de graissage, pour adoucir les frottements, etc.
Apparate zum Einölen, Schmierbüchsen etc.
Distributori d'olio, e lubrificatori grassi, ecc.
- 51 WILLIAMSON BROTHERS, Cadal Iron Works, Kendal
Turbines, centrifugal pumps, &c.
Turbines, pompes à force centrifuge, etc.
Turbinen, Centrifugal-Pumpen etc.
Turbine, pompe centrifuge, ecc.

CLASS LIV.

Machine Tools.

Machines-Outils.

Maschinenwerkzeuge.

Macchine Arnesi.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

*(Vedasi il sistema di classificazione, p. xxiii.)*COMMITTEE—COMITÉ
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G. W. Hemans, Esq., M.I.C.E., F.R.G.S., F.G.S.

ASSOCIATE—ASSOCIÉ

HÜLFSPREISRICHTER—ASSOCIATO.

John Anderson, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BASS, J. G., & Co., Solway Works, Workington
Nail-forging machine*Machine à forger les clous*

Nagelschmiedemaschine

*Macchina fucina per chiodi*2 CLIFF, JOHN, Princes-st., Lambeth, London
Patent contact potter's wheel and lathe*Tour à contact de potier breveté*Patentirte Drehscheibe und Drehbank für
Töpfer*Ruota e tornio di contatto da vasellaio vatenato*

4 DAVIES, D., Viaduct Works, Crumlin, Newport, Monmouth

Steam striker—*Marteau à vapeur*Dampfhammer—*Battitore a vapore*5 DE BERGUE, C., & Co., 10 Strand, London
Punching, shearing, rivet-making machines;
railway permanent way, &c.*Machine à percer, à rogner, à river; voie
férée, etc.*Maschinen zum Durchlöchern, Schneiden und
Nietenmachen; Eisenbahnschienen etc.
*Machine da punzonare, cimare, far chiavarde
da ribadire; armamento ferroviario, ecc.*

5A DUNN, T. (see Class 65)

Lithographs of double-acting tools for rail-
way purposes*Lithographies de machines-outils à double effet
pour chemins de fer*Lithographien von Maschinenwerkzeugen für
Eisenbahnzwecke*Litografie d'arnesi a doppia azione per strade
ferrase*6 EASTERBROOK & ALLCARD, Albert Works,
Suffolk-road, Sheffield

Engineer's hand tools

Outils servant au travail manuel des métaux

Handwerkzeuge für Maschinenbauer

Arnesi a mano per ingegnere

7 *FORRESTER, G., & Co., Vauxhall-rd. Liverpool

Portable steam riveting machine

Machine à river portative

Transportirbare Dampfmaschine zum Vernieten

*Macchina a vapore portatile per ribadire*8 FOX, SAMSON, & BROTHERS, Silver Cross
Works, Dewsbury-road, Leeds

Nut, bolt-head, and brass shaping machine

*Machine à tailler les écrous, les boulons, les
objets de laiton, etc.*Maschine um Schrauben und Schraubenmütter
zu machen, sowie zur Messingverarbeitung*Macchina per formare madreviti, teste di
chiavarde e ottomani*

9 HICK, HARGREAVES, & Co., Bolton-le-Moors

Machine tools and engine

Machines-outils, et machine à vapeur

Maschinenwerkzeuge und Dampfmaschine

*Macchine arnesi, e motore*10 *HYDRAULIC TUBE DRAWING Co. (Limited),
14 Wharf, Macclesfield-street North, LondonMachinery for drawing and tapering steel
tubes, gun barrels, &c. (Harding's patent)*Machines pour le tirage et emboutissage des
tubes d'acier, des canons de fusil, etc. (brevet
de Harding)*Maschine zum Ausziehen und Härten von
Stahlröhren und Flintenläufen etc. (Hard-
ing's Patent)*Meccanismi per tirare, e dare allungamento
cuneiforme a tubi d'acciaio, canne da schioppo,
ecc. (patente Harding)*12 MASSEY, B. & S., Openshaw Canal Iron
Works, ManchesterSteam hammer, steam oliver, and forgings
made by it*Martinet mu par la vapeur, 'oliver' mu par
la vapeur et pièces forgées par cette machine*Dampfhammer; Tritthammer, durch Dampf
getrieben; Schmiedearbeit, verfertigt mit
Hülfe desselben*Martello a vapore, 'oliver' a vapore e saggi di
lavoro fatto da questa macchina*14 NEILSON BROTHERS, 102 Hyde-park-street,
Glasgow

- Patent radial drill
Machine radiale à percer, brevetée
 Bohrmaschine (Patent)
Trapano radiale (patentato)
- 15 POWIS, CHARLES, & Co., Cyclops Works, Millwall Pier, and 51 Gracechurch-street, London
 Saw-mill machinery
Machines à scier le bois
 Sägemühlen-Maschinerie
Meccanismi di seghe a macchina
- 16 POWIS, JAMES, & Co., Victoria Works, Vine-street, York-road, Lambeth, London (Appendix, p. 202)
 Wood-cutting, planing, moulding machines, &c.
Machines à débiter, à raboter et à façonner le bois, etc.
 Säge-, Hobel- und Form-Maschinen etc.
Macchine per tagliare, piallare, modanare legno, ecc.
- 17 RHODES, J., & SONS, Grove Works, Wakefield
 Machine tools—*Machines-outils*
 Maschinenwerkzeuge—*Macchine arnesi*
- 18 ROBINSON, T., & SON, Railway Works, Fishwick-street, Rochdale (Appendix, p. 203)
 Wood-working machinery
Machines servant au travail du bois
 Maschinerie für Holzarbeit
Meccanismi per lavorare il legno
- 19 SHARP, STEWART, & Co. (Limited), Atlas Works, Manchester
 Workshop tools, &c.—*Outils d'ateliers, etc.*
 Geräte für die Werkstatt etc.
Arnesi da bottega
- 20 SHEPHERD, HILL, & Co., Hunslet, Leeds
 Self-acting machine tools
Machines-outils automotrices
 Automatische Maschinenwerkzeuge
Macchine arnesi automatiche
- 21 SKETCHLEY, WILLIAM, 14 Great George-street, Weymouth
 Wood-cutting machine
Machine à débiter le bois
 Holzschnidemaschine
Macchine per tagliar legno
- 22 STURGEON, J., Miles Platting, Manchester
 Models of steam hammers
Modèles de martinets mus par la vapeur
 Modellen von Dampfhammer
Modelli di martelli a vapore
- 23 *TANNETT, WALKER, & Co., Leeds
 Steam hammer; tools, &c.
Martinet mu par la vapeur; outils, etc.
 Dampfhammer; Werkzeuge etc.
Martello a vapore; arnesi, ecc.
- 24 THWAITES & CARBUTT, Vulcan Iron Works, Bradford, Yorkshire
 Steam hammers—*Martinets mus par la vapeur*
 Dampfhammer—*Martelli a vapore*
- 25 WHITWORTH COMPANY (Limited) Manchester (Appendix, pp. 204-6)
 Machine tools—*Machines-outils*
 Maschinenwerkzeuge—*Macchine arnesi*

26 WORSSAM, SAMUEL, & Co., 304 King's-road, Chelsea, London
 Wood and stone working machines, tools, &c.
Machines et outils servant au travail du bois et des pierres
 Maschinen und Werkzeuge zur Bearbeitung von Holz und Stein
Macchine e arnesi per lavorare il legno e la pietra

CLASS LV.

Apparatus and Processes used in Spinning and Rope-making.
Matériel et Procédés du Filage et de la Corderie.
 Apparate und Processe, die beim Spinnen und Seilmachen gebraucht werden.
Apparati e Processi usati nella Filatura e Fabbricazione di Cordami.

(For detailed classification, see p. xxiii.)
(Voir le système de classification, p. xxiii.)
 (Für detaillirte Classification, siehe Seite xxiii.)
(Vedasi il sistema di classificazione, p. xxiii.)

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R. D. Marshall, Esq.

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HÜLFSPREISRICHTER—ASSOCIATO.

R. Lloyd, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

2 BATLEY CHAMBER OF COMMERCE, Batley
 Rag-grinding machine
Machines à broyer les chiffons
 Lumpenstampfmaschine
Macchina pesta-stracci

- 3 BOOTH, H., & Co., Lady Day Works, Preston
Spindles, flyers, &c.—*Fuseaux, méchoirs, etc.*
Spindeln, Schwengel etc.—*Fusi e volani, ecc.*
- 4 BROOK, J., & BROTHERS, Huddersfield
Machine for winding sewing-cotton
Bobinoir pour le fil de coton à coudre
Maschine um Nähzwirn aufzuwickeln
Macchina per dipanare cotone da cucire
- 5 COMBE, J., & Co., Falls Foundry, Belfast
Flax machinery
Machines à filer et à teiller le lin
Flachsmaschinerie
Meccanismi da lino
- 5A CRAVEN & SPEEDING BROTHERS, Sunderland
Wire and hemp rope
Câbles de chanvre et en fils métalliques
Draht und Hanfseile
Gomene di canapa e di fili metallici
- 6 DIXON, J., & SONS, Steeton, Leeds
Keys, treenails, bobbins, rollers, &c.
Chevilletes, bobines, cylindres, etc.
Schlüssel, Pflöcke, Spulen, Cylinder etc.
Cavigliette, trafilole, cannette, cilindri, ecc.
- 7 FERRABEE, JAMES, Brimscombe, near Stroud
(Appendix, p. 207)
Improved machinery for preparing wool for spinning
Machines perfectionnées pour la préparation de la laine
Verbesserte Maschinerie um Wolle zum Spinnen vorzubereiten
Meccanismi perfezionati per preparare la lana per la filatura
- 8 HODGKIN, J. ELIOT, West Derby, Liverpool
(Appendix, p. 208)
Flax machinery
Machines à broyer et à teiller le lin
Flachsmaschinerie
Meccanismi pel lino
- 9 HORSFALL, WILLIAM, 131 Great Bridgewater-street, Manchester
Cards and card cloth; patent card grinder
Cardes et étoffes pour cardes; machine à fabriquer les cardes
Krämpel und Krämpeltuch; Maschine zum Schärfen der Krämpel
Cardi, e panno per cardi, affila-cardi (patentato)
- 10 HOWARD & BULLOUGH, Accrington (Appendix, p. 209)
Cotton manufacturing machinery
Machines pour la filature du coton
Baumwollenspinnmaschinen
Meccanismi pella fabbricazione dei cotonami
- 11 LAWSON, S., & SONS, Leeds
Flax-spinning machinery
Machines pour la filature du lin
Flachsspinnmaschinerie
Meccanismi pella filatura del lino
- 11A LEONI, SIGISMUND, St. Paul's-street, New North-road, London
Spinning machine—*Machine à filer*
Spinmaschine—*Macchina per filare*
- 12 LISTER, GEORGE, Rivers, Dursley, Gloucestershire
Condenser and carding machine
Machine de condensation, machine à carder
Condensator und Krämpelmaschine
Condensatore e macchina da cardare
- 13 MALLINSON, KNAFTON, & Co., Dixon-lane, Wortley, near Leeds
Samples of wood and leather, tow and flax card clothing, &c.; leather belting
Garnitures de bois et de cuir pour carder le lin et les étoupes de lin; courroies de machines
Proben von Stoffen aus gekrämpeltem Holz und Leder, Werg und Flachs etc.; Treibriemen
Campioni di panno da cardi di legno e cuoio, stoppa e lino, ecc., bande di cuoio
- 14 *MURRAY, BARNABY A., 2 Palace-street, Dublin
Silk throwing and doubling machine
Machine pour le moulinage et retordage de la soie
Maschine zum Seidenbereiten und Zwrinnen
Macchina per tirare e torcere la seta
- 15 PLATT BROTHERS & Co., Oldham (Appendix, pp. 210–23)
Series of preparing, spinning, and weaving machinery for cotton and woollen
Série de machines pour la préparation, la filature et le tissage du coton et de la laine
Eine Reihe von Maschinerie für die Zubereitung, das Spinnen und Weben von Baumwolle und Wolle
Serie di meccanismi per preparare, filare, e tessere lana e cotone
- 16 WATKINS, THOMAS, 89 Bridge-street, Bradford
Porcelain spinning guides, washers, shuttle-eyes, &c.
Guides de métiers à tisser, rondelles, trous de navettes, etc., de porcelaine
Porcellan-Leiter zum Spinnen, Washer (ringförmige Scheiben für Reibung oder luftdichten Verschluss); Augen für Weberschiffchen etc.
Guide pella filatura, cercini, buchi di spolette, ecc., di porcellana
- 17 WREN & HOPKINSON, London-road Iron Works, Manchester
Machines for winding bobbins, cards, and balls of cotton, sewing thread, flax, and silk
Machines à dévider des bobines, des cartes et des pelottes de fil à coudre, de coton, de lin et de soie
Maschinen zum Aufwinden von Baumwolle, Nähzwirn, Flachs, und Seide auf Spulen
Karten und Knäuel
Macchine per dipanare rocchetti, cardi, e gomoli di cotone, filo da cucire, lino e seta

CLASS LVI.

Apparatus and Processes used in Weaving.

Matériel et Procédés du Tissage.

Apparate und Processe, die zum Weben gebraucht werden.

Apparecchi e Processi usati nel Tessere.

(For detailed classification, see p. xxiii.)

(*Voir le système de classification*, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(*Vedasi il sistema di classificazione*, p. xxiii.)

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ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

R. Lloyd, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BROOKE, S., & SON, Calder Vale Works, Brighouse, Normanton
Card clothing for machinery
Garnitures de cardes pour la mécanique
Besatz für Maschinerie
Fornimenti di carte per macchina

2 COOK & HACKING, California Iron Works, Bury, Lancashire
Looms, &c.; patent wire healds
Métiers, etc.; tissés de fil de fer brevetés
Webestühle etc.; patentirte Drahtwerfen
Telai, ecc., licci di fil di ferro (patentati)

4 HALL, ROBERT, Hope Foundry, Bury, Lancashire
Power-loom, winding machines, and models
Métiers mécaniques, machines à bobiner, et modèles
Dampfwebestühle, Haspel und Modelle
Telai meccanici, macchine da incannare, e modelli

5 HATTERSLEY, G., & SONS, Keighley
Power-loom
Métiers mécaniques
Dampfwebestühle
Telai meccanici

6 HODGSON, G., Laycock's Mill, Bradford
Looms
Métiers
Webestühle
Telai

7 INGHAM, J., & SONS, Thornton, near Bradford
Case of shuttles, shuttle-pikes, and tackling for weaving
Navettes, broches, et appareils du tissage
Ein Kasten mit Weberschiffchen, Spitzen für Weberschiffchen und Geräthe zum Weben
Cassa di spole, punte di spola, attrazzi per tessere

8 IRVIN & SELLERS, Peel Hall Works, Preston (Appendix, p. 224)
Shuttles, bobbins, &c., used in the spinning of fibres
Navettes, bobines, etc., servant à la filature des fibres textiles
Weberschiffchen, Spulen etc., gebraucht beim Spinnen
Spole, cannelle, ecc., usati nella filatura della fibra

9 KEIGHLEY, J., & Co., Birksland Wor, Bradford
Looms for weaving worsted goods
Métiers à tisser la laine
Webestühle für wollene Zeuge
Telai per tessere manifatture di stame

10 LEEMING, J., & SON, Bradford (Appendix, p. 225)
Power looms
Métiers mécaniques
Kraftwebestühle
Telai meccanici

12 *LIVESEY, HENCKEL, & Co., Greenbank Foundry, Blackburn, Lancashire
Weaving utensils
Appareils pour le tissage
Webergeräthschaften
Utensili per tessitura

13 PARKER, C., & SON, Lady Bank Works, Dundee (Appendix, p. 226)
Machinery connected with weaving
Machines pour le tissage
Maschinerie für Weberei
Meccanismi relativi alla tessitura

- 14 *PRIESTLEY BROTHERS, Hope Mill, Halifax
Silk combs and cards
Peignes et cardes pour le tissage de la soie
Seidenkämme und Krämpel
Pettini e cardì da seta
- 15 *RAMSDEN, J. C., Market-street, Bradford
Patent elastic reeds and healds
Ros et lisses élastiques, brevettés
Patentirte elastische Spulen und Werften
Licci e cannelle elastiche (patentate)
- 16 SALTER, SAMUEL C., High-street, Market Drayton
Portable apparatus to shrink woollen and other fabrics by steam
Appareil portatif à vider les tissus de laine, etc., par la vapeur
Locomobiler Dampfapparat zum Einlaufen lassen von wollenen und anderen Stoffen
Apparato portatile per infeltrire manifatture di lana ed altro a vapore
- 17 SMITH, JOHN & SAMUEL, Low Bridge Works, Keighley
Worsted spinning machinery
Machines à filer l'estame
Wollgarn-Spinnmaschinerie
Macchine per filar lo stame
- 18 SMITH, W., & BROTHERS, Sun Iron Works, Heywood, near Manchester
Looms, winding and dressing machines
Métiers, bobinoirs, apprêts mécaniques
Webestühle, Haspel- und Appretirmaschinen
Telai, machine per incannare e insaldare
- 19 SOWDEN & STEPHENSON, Bradford
Power looms
Métiers mécaniques
Dampfwebestühle
Telai meccanici
- 20 URQUHART, LINDSAY, & Co., Blackness Foundry, Larch-street, Dundee (App. p. 227)
Power-loom and drawings of machines
Métiers mécaniques, et dessins de machines
Dampfwebestühle und Zeichnungen von Maschinen
Telaio meccanico, e disegni di macchine

CLASS LVII.

Apparatus and Processes for Sewing, and for Making up Clothing.

Matériel et Procédés de la Couture et de la Confection des Vêtements.

Apparate und Processe zum Nähen und Kleidermachen.

Apparati e Processi per Cucire e per Confezionare Abbigliamenti.

(For detailed classification, see p. xxiii.)

(*Voir le système de classification*, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(*Vedasi il sistema di classificazione*, p. xxiii.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Duke of Buckingham and Chandos

Duke of Sutherland, K.G.

Marquess of Salisbury, K.G.

Earl of Rosse, K.P.

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Richard Russell, Esq.

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Warrington W. Smyth, Esq.

H. S. Thompson, Esq.

Henry Thring, Esq.

H. Hussey Vivian, Esq. M.P.

Joseph Whitworth, Esq.

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Captain Hichens, R.E. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Peter Tait, Esq.

ASSOCIATES—ASSOCIÉS
HÜLFSPREISRICHTER—ASSOCIATI.

Captain Ponsonby Cox, R.E.

Col. J. L. Tait.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ALEXANDRA SEWING MACHINE COMPANY
(A. Pilbeam, Manager), 29 Great Portland-street, London

Sewing machines—*Machines à coudre*
Nähmaschinen—*Macchine cucitrici*

- 2 BRADBURY & Co., Wellington-st., Oldham
Sewing machines and their appliances
Machines à coudre, et outils
Nähmaschinen und ihre Anwendungen
Macchine cucitrici e loro attinenze

- 3 CLEMENTS, JAMES M., 7 & 8 Livery-street, Birmingham
Machines for working button-holes, embroidering, sail-making, and carpet-making
Machines à piquer les boutonnières, à broder, à faire les voiles, métiers à fabriquer les tapis

Maschinen um Knopflöcher zu machen, zum
Sticken, Segel- und Teppichmachen
*Macchine per fare occhielli, ricamare, far vele
e tappeti*

3A EUROPEAN SEWING MACHINE COMPANY,
Coventry
Sewing machine—*Machine à coudre*
Nähmaschine—*Macchina cucitrice*

4 *GUINNESS, W. S., 42 Cheapside, London
Sewing machines—*Machines à coudre*
Nähmaschinen—*Macchine cucitrici*

5 *HODGE, OLIVER H., 5 Allen's-court, Oxford-
street, London
Hand machines for cutting hat brims eccen-
tric widths
*Machines à bras pour découper les bords de
chapeaux, de largeurs excentriques*
Handmaschinen um Hutränder excentrisch
auszuschneiden
*Macchine a mano per tagliare tese da cappelli
a larghezze eccentriche*

6 NEWTON, WILSON, & Co., 144 High Hol-
born, London (Appendix, pp. 228-9)
Sewing machines and their products
Machines à coudre et articles confectionnés
Nähmaschinen und ihre Producte
Macchine cucitrici e loro produzioni

7 PITT BROTHERS, Cleckheaton, Yorkshire
Sewing machine—*Machine à coudre*
Nähmaschine—*Macchine cucitrici*

8 SIMPSON, R. E., & Co., 116 Cheapside, Lon-
don
Sewing machines—*Machines à coudre*
Nähmaschinen—*Macchine cucitrici*

9 *SOUTHALL & HEAP, Market-street, Staly-
bridge
Self-acting machinery for making and finish-
ing boots and shoes
Mécanique automatique à faire les chaussures
Automatische Maschinerie um Schuhe und
Stiefel zu verfertigen
*Meccanismi automatici per fare e finire stivali
e scarpe*

10 THOMAS, W. F., & Co., 1 & 2 Cheapside,
and Regent Circus, Oxford-street, London
Sewing machines and sail machine
Machines à coudre et à faire les voiles
Nähmaschinen und Flügeltuchmaschine
Macchine cucitrici e macchina per far vele

11 WANZER SEWING MACHINE COMPANY, 4
Cheapside, London
Sewing machine—*Machines à coudre*
Nähmaschine—*Macchine cucitrici*

12 WHIGHT & MANN, Gipping Works, Ips-
wich, and 143 Holborn Bars, London
Sewing and embroidering machines
Machines à coudre et à broder
Näh- und Stickmaschinen
Macchine cucitrici e ricamatrici

CLASS LVIII.

Apparatus and Processes used in the
Manufacture of Furniture and Ob-
jects for Dwellings.

*Matériel et Procédés de la Confection des
Objets de Mobilier et d'Habitation.*

Apparate und Processe, die in der Fab-
rication der Möbel und der Haus-
geräthe gebraucht werden.

*Apparati e Processi usati nella Fabbri-
cazione dei Mobili e Attrezzi di
Abitazioni.*

(For detailed classification, see p. xxiii.)
(*Voir le système de classification, p. xxiii.*)
(Für detaillirte Classification, siehe Seite xxiii.)
(*Vedasi il sistema di classificazione, p. xxiii.*)

COMMITTEE—COMITÉ
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Sir Samuel Morton Peto, Bart. M.P.
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In conjunction with the Council of the Royal Institu-
tion of Civil Engineers.
Captain Hichens, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Lieut.-Colonel Ewart, R.E.

1 CLARK & Co., Rathbone-place, Oxford-street,
London
Revolving shutter and machine for making
the same
*Fermeture tournante et machine servant à sa
fabrication*
Sich umwälzende Fensterladen und Maschine,
dieselben zu machen
Imposta girante e macchina per farne

2 POWIS, CHARLES, & Co. (see Class 54)
Wood-cutting machines
Machines à scier le bois
Holzschneidemaschinen
Meccanismi per segar il legno

- 3 POWIS, JAMES, & Co. (see Class 54)
Wood-cutting machines
Machines à scier le bois
Holzschneidemaschinen
Meccanismi per segar il legno
- 4 ROBINSON, T., & SON (see Class 54)
Wood-cutting machines
Machines à scier le bois
Holzschneidemaschinen
Meccanismi per segar il legno
- 5 WORSSAM, SAMUEL, & Co. (see Class 54)
Wood-working machines
Machines servant au travail du bois
Holzarbeitemaschinen
Meccanismi per lavorare il legno

CLASS LIX.

Apparatus and Processes used in Paper-making, Dyeing, and Printing.

Matériel et Procédés de la Papeterie, des Teintures et des Impressions.

Apparate und Prozesse, gebraucht in der Papier-Fabrication, beim Färben und Drucken.

*Apparati e Processi usati nella Fabbri-
cazione della Carta, nella Tintoria, e
nella Stampa.*

(For detailed classification, see p. xxiv.)

(*Voir le système de classification*, p. xxiv.)

(Für detaillierte Classification, siehe Seite xxiv.)
(*Vedasi il sistema di classificazione*, p. xxiv.)

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John Fowler, Esq. P.I.C.E.
Charles Forster, Esq. M.P.
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H. W. Meade King, Esq.
Henry Loveridge, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Warington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

In conjunction with the Council of the Royal Institution of Civil Engineers.

Captain Webber, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Wyndham S. Portal, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 *BONNEWELL, W. H., & Co., 85 Holborn-hill, London
Wood type blocks, stereotypes, &c.
Planches de bois pour impressions, clichés, etc.
Blöcke zum Holzdruck, Stereotypen etc.
Tavolette a tipi, stereotipi, ecc.
- 2 *BURKITT, JOHN, 16 Gray's-inn-road, London
Drawing of paper-making machine
Dessin de machine à fabriquer le papier
Zeichnung für eine Maschine zum Papier-machen
Disegno di macchina da far carta
- 3 *BUTLER, J., & SONS, 4 Elm-street, London
Wove wire used in the manufacture of paper
Tissus de fils de fer servant à la fabrication du papier
Drahtgewebe, gebraucht in Papier-Fabrication
Filo metallico tessuto usato nella fabbricazione della carta
- 3A DELLAGANA, J. B., & Co., 28 St. John's-street, Clerkenwell, London
Horizontal printing machine
Presse horizontale à imprimer
Horizontale Druckmaschine
Torchio orizzontale
- 4 DONKIN, B., & Co., Bermondsey, London
Paper-making machinery (Appendix, p. 187)
Matériel de la fabrication du papier à la mécanique
Maschinerie zum Papiermachen
Meccanismi per far carta
- 5 MILLER & RICHARD, 22 Bartlett's-buildings, Holborn-hill, London, and Nicolson-street, Edinburgh (Appendix, pp. 230-1)
Implements used by type-founders and printers, types, &c.
Appareils de fonderie en caractères, et d'imprimerie, caractères, etc.
Werkzeuge für Schriftgiesser und Buch-drucker, Schriften etc.
Arnesi per fonderie di tipi e stamperie, tipi, ecc.
- 6 MOREL, VICTOR, 48 Fetter-lane, London
Cheap electrotypes, for book-work
Gravures, etc., reproduites par la galvanoplastie, pour illustrer les livres de bon marché
Wohlfeile Electrotypen für Bücher
Elettrotipi a buon prezzo per edizioni
- 7 PATENT PRINTING SURFACE COMPANY, 9 Buckingham-street, Strand, London
Pneumatic and other machines for printing from elastic surfaces
Machines pneumatiques et autres pour impressions sur des surfaces élastiques
Pneumatische und andere Maschinen zum Druck von elastischen Oberflächen
Macchine pneumatiche ed altre per torre impressioni da superfici elastiche

- 8 REED & FOX, Fann-street, London
Specimens of printing type
Spécimens de caractères d'imprimerie
Muster von Druckschriften
Saggi di tipi da stampa
- 9 ROBINSON, J., & Co., Salford, Manchester
Friction calender for glazing calicoes and linen
Calandre à frottement pour glacer les calicots et les tissus de lin
Reibungsrollen zum Glasiren von Kattun- und Leinwand
Calandra a frizione per lustrare calicò e tela
- 10 STONES, M. V., Barbican, London
Woven wire, dandy rolls and paper moulds; patent watermarks
Tissus de fils de fer, rouleaux à vergeures, formes à papier; dessins de filigrane brevetés
Drahtgewebe, Walzen und Papierformen; patentirte Wassermarken
Filo metallico tessuto, cilindri da cartiere, e forme da carta, filigranatura patentata

CLASS LX.

Machines, Instruments, and Processes used in Various Works.
Machines, Instruments et Procédés usités dans divers Travaux.
Maschinen, Instrumente und Processe, gebraucht für verschiedene Arbeit.
Macchine, Strumenti e Processi usati in varie officine.

(For detailed classification, see p. xxiv.)
* (*Voir le système de classification, p. xxiv.*)
(Für detaillirte Classification, siehe Seite xxiv.)
(*Vedasi il sistema di classificazione, p. xxiv.*)

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Captain Webber, R.E. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

C. F. Beyer, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 *CARLAW, DAVID, 62 Argyle-street, Glasgow
Numbering machine for books, bank cheques, &c.
Machine à numéroter les pages des livres, les mandats, etc
Maschine zum Numeriren von Büchern, Bankanweisungen etc.
Macchina per numerazione progressiva di fogli di libri, mandati di banco, ecc.
- 2 COHEN, B. S., 9 Magdalen-row, London
Process of making lead pencils
Procédé de la fabrication des crayons de graphite
Arbeitsmodelle, die Bleistifte machen
Processo di fabbricazione di lapis

2A HICKLING, W. E., 21 Market-street,
Leicester
Bottle washing machine
Machine à laver les bouteilles
Flaschenspülmaschine
Macchina per lavar bottiglie

2B HALL, J. SPARKES (see Class 35)
Shoemaker's bench, tools, &c.
Établi, outils, etc., de cordonnier
Schusterwerkstatt, Schuhmacherwerkzeuge
u. s. w.
Arnesi, banco, ecc., da calzolaio

3 MILWARD, H., & SONS, Washford Mills
Redditch
Process of needle-making, represented by
working models
*Modèles en mouvement de la fabrication des
aiguilles*
Arbeitsmodelle, die Nadeln machen
*Processo di fabbricazione d'aghi, rappresentato
da modelli in azione*

4 HER MAJESTY'S POSTMASTER-GENERAL, Lon-
don (Appendix, pp. 232-3)
Models of apparatus and machines, illus-
trating the arrangements adopted at the
General Post Office, London
*Modèles de machines et appareils en usage à
l'Administration Générale des Postes, à
Londres*
Modelle von Apparaten und Maschinen zur
Erklärung der beim General Postamt zu
London angewandten Vorrichtungen
*Modelli di apparati e macchine illustrative dei
sistemi adottati all' Ufficio Generale delle Poste
in Londra*

5 *PRATT BROTHERS, & FARMER, Albert Works,
Graham-st Birmingham
Needles secured on paper by machinery
*Méthode de fixer à la mécanique les aiguilles
sur le papier*
Methode, um Nadeln auf Papier durch Ma-
schinenkraft zu befestigen
*Aghi attaccati a carta da un processo mecca-
nico*

6 SCIENCE AND ART DEPARTMENT, South Ken-
sington, London (Appendix, p. 233)
Dusting machine, invented by the late Capt.
Fowke, R.E., for the South Kensington
Museum
*Appareil à épousseter, inventé par feu le Ca-
pitaine Fowke, pour le Musée de South Ken-
sington*

Maschine zum Abstäuben, erfunden vom ver-
storbenen Ingenieur-Capitain Fowke für das
Museum in South Kensington
*Macchina per ispolverare, inventata dal fu
Capitano Fowke (genio Militare) pel Museo
South Kensington*

CLASS LXI.

Carriages and Wheelwright's Work.
Carrosserie et Charronnage.

Kutschen und Stellmacherarbeit.

Fabbricazione di Carrozze e di Ruote.

(For detailed classification, see p. xxiv.)

(*Voir le système de classification, p. xxiv.*)

(Für detaillirte Classification, siehe Seite xxiv.)

(*Vedasi il sistema di classificazione, p. xxiv.*)

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Earl of Rosse, K.P.
Earl Vane
Viscount Torrington
Lord Stanley, M.P.
Lord Richard Grosvenor, M.P.
Rt. Hon. Sir John S. Pakington, Bart. G.C.B.
Sir Alexander Y. Spearman, Bart.
Sir Samuel Morton Peto, Bart. M.P.
Lieut.-Col. R. N. F. Kingscote, C.B.
Lieut.-Col. G. A. Maude, C.B.
Somerset A. Beaumont, Esq.
George T. Clark, Esq.
Thomas Fairbairn, Esq.
John Fowler, Esq. P.I.C.E.
Charles Forster, Esq. M.P.
William Hawes, Esq.
Joseph Holland, Esq.
Herbert M. Holmes, Esq.
George W. Hooper, Esq.
H. W. Meade King, Esq.
Henry Loveridge, Esq.
W. J. S. Morritt, Esq.
F. Mulliner, Esq.
John W. Peters, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Warington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

Henry Sandham, Esq. *Secretary.*

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PREISRICHTER—GIURATO.

G. N. Hooper, Esq.

ASSOCIATE—ASSOCIÉ
HULFSPREISRICHTER—ASSOCIATO.

Minton Campbell, Esq.

NOTE.—Names marked with an asterisk are those of
persons who do not exhibit in this class.

1 ALDEBERT, ISAAC, 57, 58, & 59 Long-acre,
London
Carriages—*Voitures*
Kutschen—*Carrozze*

2 BEDFORD, J. H., & SON, 124 Euston-road, and
31 Edward's-street, Portman-square, London
Carriage—*Voiture*
Kutsche—*Carrozza*

3 BETTYES, J., & SON, 222 Piccadilly, London
Carriage—*Voiture*
Kutsche—*Ca'rozze*

- 4 BOYALL, R. J., Carriage Works, Grantham
Carriage—*Voiture*
Kutschen—*Carrozze*
- 5 *BRIGGS, G. & Co., 45 Wigmore-street, London
Carriages—*Voitures*
Kutschen—*Carrozze*
- 6 COCKSHOOT, J., JUN., 39 New Bridge-street, Manchester
Barouche with improvements
Barouche perfectionnée
Barutsche mit Verbesserungen
Biroccio perfezionato
- 7 COLE, WILLIAM, Kensington, London
Brougham with circular front
Coupé brougham avec devant circulaire
Ein Brougham (Chaise) mit rundem Vordertheil
Brougham con facciata circolare
- 7A COOKE, T., & SONS, Buckingham Works, York
Steam carriage—*Voiture mue par la vapeur*
Dampfkutsche—*Carrozze a vapore*
- 8 COOPER, J. C., 3 Long-acre, London
Models and drawings of carriages
Modèles et dessins de voitures
Modelle und Zeichnungen von Kutschen
Modelli e disegni di carrozze
- 9 DAVIES & SONS, 15, Wigmore-street, London
Carriage—*Voiture*
Kutsche—*Carrozze*
- 10 EVANS, JAMES, 46 Seel-street, Liverpool
'Alexandra' drag, with patent springs
Voiture dite 'Alexandra drag,' avec ressorts brevetés
'Alexandra-Drag' (eine Art Wagen), mit patentirten Springfedern
'Drag' 'Alessandra' con molle patentate
- 10A FARNWORTH, J. K., 33 Hopwood-avenue, Manchester
Model door and carriage window
Fenêtre se levant et se fermant d'elle-même.
Modellthür und Kutschenfenster
Finestra da carrozza aprendo e chiudendo da sé
- 11 *GASKELL, PETER, 60 Stafford-street, Birmingham
Cab indicators
Indicateurs pour voitures de place
Indicatoren für Droschken
Indicatori per fiaccheri
- 12 GRANDY, J., 1 Alfred-place, Battersea, London
Carriage doors with improved concealed hinge
Portes de voitures avec gonds imperceptibles perfectionnés
Kutschenthüren mit verbesserten verborgenen Thürangeln
Sportello da carrozza con cardini perfezionati invisibili
- 13 HOLMES, H. & A., Derby
Elliptic spring carriages
Voitures montées sur ressorts elliptiques
Kutschen mit elliptischen Springfedern
Carrozze a molle ellittiche
- 14 HOOPER & Co., Victoria-street, London (Appendix, pp. 234–5)
Carriages, carriage drawings, and Russian harness
Voitures, dessins de voitures, et harnais de cuir de Russie
Kutschen, Zeichnungen von Kutschen und Russisches Pferdegeschirr
Carrozze, disegni di carrozze e finimenti da cavalli russi
- 15 HUTTON, J., & SONS, 115 Summer-hill, Dublin
Park sociable and outside Irish car
Calèche de campagne, et voiture irlandaise
Eine moderne Kutsche zur Spazierfahrt, ein Irändischer zweirädriger Wagen
Carro per Parco detto 'Socevole' e carro irlandese detto 'Esteriore'
- 16 IVALL & LARGE, 56 South Audley-street, London
Carriage—*Voiture*
Kutsche—*Carrozze*
- 17 LAURIE & MARNER, 313 Oxford-st., London
Barouche—*Barouche*
Barutsche—*Biroccio*
- 18 LEAMINGTON WHEEL WORKS COMPANY, Chapel-street, Leamington
Carriage wheels—*Roues de voitures*
Wagenräder—*Ruote da carrozza*
- 19 MARTIN, CHARLES, 15 Duke-street, Adelphi, London
Patent landau
Landau breveté
Patentirter Landauer
Landau patentato
- 20 MASON, W. H., Kingsland-bridge, at Clapton, London
Carriages—*Voitures*
Kutsche—*Carrozze*
- 21 *McDOWELL, JOHN, 46A St. Anne-street, Liverpool
Carriage
Voiture
Kutsche
Carrozze
- 22 McNAUGHT & SMITH, Worcester (Appendix, p. 236)
Barouche
Barouche
Barutsche
Biroccio
- 23 MORGAN, E. & G. H., 90 Edgware-road, London
Patent headed carriages
Voitures à soufflets brevetées
Patentirte bedeckte Kutschen
Carrozze con cieli patentati

- 24 MULLINER, F.**, Northampton, and 19 Brook-street, Grosvenor-square, London
 Carriage
Voiture
 Kutschen
Carrozze
- 25 MULLINER, H.**, Chapel-street, Leamington
 Carriages and designs of carriages
Voitures, et dessins de voitures
 Kutschen und Zeichnungen davon
Carrozze e disegni di carrozze
- 26 NORMAN, S. W.**, 116 Westminster-bridge-road, Lambeth, London
 Self-acting breaks for carriages, &c.
Freins automoteurs pour voitures, etc.
 Automatische Bremse für Kutschen etc.
Freni automatici per carrozze
- 27 OFFORD, J. & R.**, 79 Wells-street, Oxford-street, London
 Carriage
Voiture
 Kutsche
Carrozze
- 28 PETERS, T., & SONS**, 53 Park-street, Grosvenor-square, London
 Private carriages
Voitures de luxe
 Privatequipagen
Carrozze signorili
- 29 ROBERTS, J., & SONS**, Bridgewater
 Whitechapel dog cart
Voiture à deux roues, dite 'Whitechapel dog-cart'
 Ein zweirädriger Wagen, genannt 'Whitechapel dog cart'
Calesse detto 'Whitechapel cart'
- 30 ROCK & SON**, Hastings (Appendix, p. 237)
 Automatic landau
Landau automatique
 Automatische Landauer Kutsche
Landau automatico
- 31 ROGERS, W., & Co.**, St. George's-road, Bristol
 Carriages
Voitures
 Kutschen
Carrozze
- 31A RUSSELL & Co.**, Esher-street, Westminster, London (Appendix, pp. 240–41)
 Patent sectional wheels
Roues à sections brevetées
 Patentirte theilbare Räder
Ruote a sezione patentata
- 32 STAREY, T. R.**, Nottingham (Appendix, p. 238)
 Private omnibus for four horses
Omnibus de luxe pour quatre chevaux
 Privatomnibus für vier Pferde
Omnibus signorile per quattro cavalli
- 33 THOMAS, WILLIAM**, 28, St. Anne-street, Liverpool
 Carriages
Voitures
 Kutschen
Carrozze
- 34 *THOMSON, GEORGE**, Stirling
 Waggonette with movable head
Voiture dite 'waggonette,' avec soufflet mobile
 Wagonette mit beweglicher Wagendecke
Vagoncino con mantice mobile
- 35 THORN, CHARLES**, St. Giles'-gates, Norwich
 Carriage
Voiture
 Kutsche
Carrozze
- 36 THORN, W. & F.**, 19 Great Portland-street, London
 Extra light carriages
Voitures très-légères
 Sehr leichte Kutschen
Carrozze extra leggere
- 37 WARD, J.**, 5 Leicester-square, London
 Invalid wheel-chairs, perambulators, &c.
Chaises de malades à roues, voitures d'enfants dites 'perambulators,' etc.
 Fahrstühle für Kranke, Perambulatoren (Kinderwagen)
Poltrone a ruote per infermi, perambulatori, ecc.
- 38 WINDOVER, C. S.**, Huntingdon, and 32 Long-acre, London
 Carriage
Voiture
 Kutsche
Carrozze
- 39 WOODALL, J., & SON**, Orchard-street, Portman-square, London
 Carriages and drawings
Voitures et dessins de voitures
 Kutschen und Zeichnungen davon
Carrozze e disegni
- 40 *WYATT, ALFRED**, 3 Chester-mews, Grosvenor-square, London
 Dress carriage lamps
Lampes de voitures d'apparat
 Lampen für Staatsequipagen
Lampioni per carrozze di gala
- 41 WYBURN & Co.**, 121 Long-acre, London
 Carriages
Voitures
 Kutschen
Carrozze

CLASS LXII.

Harness and Saddlery.

Bourrellerie et Sellerie.

Pferdegeschirr und Sattlerwaaren.

Fornimenti da Cavalli e Selleria.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

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Henry Brace, Esq.
Thomas W. Callow, Esq.
George T. Clark, Esq.
Thomas Fairbairn, Esq.
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William Hawes, Esq.
H. W. Meade King, Esq.
Benjamin J. Long, Esq.
Henry Loveridge, Esq.
John A. Owen, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Warington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

Henry Sandham, Esq. *Secretary.*JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Captain Fenn.

ASSOCIATE—ASSOCIÉ
HULFSPREISRICHTER—ASSOCIATO.

Henry Göschen, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 ALDRED, THOMAS, 54 & 55 Burlington-arcade, London
Whips, canes, sticks, &c.
Fouets, cravaches, cannes, etc.
Peitschen, Rohrstöcke, Spazierstöcke etc.
Fruste, canne, bastoni, ecc.

- 2 BLACKWELL, S., 259 Oxford-street, London
(Appendix, p. 239)
Saddlery, harness, &c. (patented)
Selles, harnais, etc. (brevetés)
Sattlerwaaren, Pferdegeschirr etc. (patentirt)
Sellerie, fornimenti da cavalli, ecc. (patentati)

- 3 BLISS, WILLIAM, 60 Crown-street, Finsbury, London
Saddlery and horse-clothing
Selles et couvertures de chevaux
Sattlerarbeit und Pferdedecken
Sellerie e coperture da cavalli
- 4 CATTANACH, W., Dunkeld-road, Bankfoot, Perth
Harness, Sporrans, &c.
Harnais, 'Sporrans', etc.
Pferdegeschirr, 'Sporrans' (Schottische Geldbeutel) etc.
Fornimenti da cavalli, 'Sporrans,' ecc.
- 5 CUFF & SON, 18 Cockspur-street, London
Saddlery and harness
Selles et harnais
Sattlerwaaren und Pferdegeschirr
Sellerie e fornimenti da cavalli
- 6 ELLAM, B., 213 Piccadilly, London
Saddlery and harness, and whips
Selles, harnais, et fouets
Sattlerarbeit, Pferdegeschirr und Peitschen
Sellerie e fornimenti da cavalli, e fruste
- 7 HAMPSON, J., & Co., 2 Dudley-street, Walsall
Bits, stirrups, spurs, &c.
Mors, éperons, étriers, etc.
Gebisse, Steigbügel, Sporen etc.
Morsi, staffe, sproni, ecc.
- 8 *HAWKINS, J., & Co., 38 Lisle-street, Leicester-square, London
Bridle-bits, stirrups, spurs, &c.
Mors de bride, étriers, éperons, etc.
Zügelgebisse, Steigbügel, Sporen etc.
Morsi da briglia, staffe, sproni, ecc.
- 9 HAYNES & SON, 27 Brownlow-street, Long-acre, London
Saddle-trees for general and military purposes
Bois de selles ordinaires et militaires
Sattelbäume für gewöhnliche und militärische Zwecke
Arcioni di selle per uso militare e generale
- 10 HEAD, JOHN, 92 Southwark-bridge-road, London
Saddlery and harness
Selles et harnais
Sattlerarbeit und Pferdegeschirr
Sellerie e fornimenti da cavalli
- 11 *HINKSON, JOHN, 76 Dame-street, Dublin
Saddlery and harness
Selles et harnais
Sattlerarbeit und Pferdegeschirr
Sellerie e fornimenti da cavalli
- 12 *HUDSON, SAMUEL, 65 Dawson-st., Dublin
Saddlery, harness, &c.
Selles, harnais, etc.
Sattlerarbeit, Pferdegeschirr etc.
Sellerie, fornimenti da cavalli, ecc.
- 13 JASSMANN, L., 20 North Audley-street, Grosvenor-square, London
Saddles, harness, &c.
Selles, harnais, etc.
Sättel, Pferdegeschirr etc.
Sellerie, fornimenti da cavalli, ecc.

- 14 MARTIN, W. H., 64 Burlington-arcade,
London
Whips, &c.
Cravaches, etc.
Peitschen etc.
Fruste, ecc.
- 15 MAXWELL, H., & Co., 161 Piccadilly, London
Spurs
Éperons
Sporen
Sproni
- 16 McCracken, A., 37 Great Charles-street,
Birmingham
Saddlery
Sellerie
Sattlerarbeit
Sellerie
- 18 SHAMMON, WILLIAM, 208 Mosley-street,
Birmingham
Whips, bridles, bits, &c.
Fouets, brides, mors, etc.
Peitschen, Zügel, Gebisse etc.
Fruste, briglie, morsi, ecc.
- 19 SHIPLEY, J. G., 179 & 181 Regent-street,
London
Whips, saddlery, harness, &c.
Fouets, selles, harnais, etc.
Peitschen, Sattlerarbeit, Pferdegeschirr etc.
Fruste, sellerie, fornimenti da cavalli, ecc.
- 20 STAREY, T. R. (see Class 61, and Appendix,
p. 238)
Harness
Harnais
Pferdegeschirr
Fornimenti da cavalli
- 21 SWAINE & ADENEY, 185 Piccadilly, London
(Appendix, p. 242)
Whips, canes, &c.
Fouets, cravaches, cannes, etc.
Peitschen, Rohrstöcke etc.
Fruste, canne, ecc.
- 22 WAR DEPARTMENT (see Class 65, War
Material, and Appendix, p. 289)
Saddlery and harness
Selles et harnais pour l'armée
Sattlerwaaren und Pferdegeschirr
Sellerie e fornimenti da cavalli

CLASS LXIII.

Railway Apparatus.
Matériel des Chemins de Fer.
Eisenbahnmaterialien.
Apparati per Ferrovie.

(For detailed classification, see p. xxiv.)
(*Voir le système de classification, p. xxiv.*)
(Für detaillirte Classification, siehe Seite xxiv.)
(*Vedasi il sistema di classificazione, p. xxiv.*)

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Henry Loveridge, Esq.
Richard Russell, Esq.
William Scholefield, Esq. M.P.
Warrington W. Smyth, Esq.
H. S. Thompson, Esq.
Henry Thring, Esq.
H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.
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Major Malcolm, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.
J. E. Mc Connell, Esq. M.I.C.E.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.
Sir D. Campbell, Bart.

- 1 CHIDLEY, ROCK, 135 High Holborn, London
Model of communicating railway carriage
Modèle de wagon à voyageurs avec appareil de communication
Modell eines communicirenden Eisenbahn-
wagens
*Modello di carrozza da ferrovia con comuni-
cazione*

- 2 DEAS, JAMES, C.E., North British Railway, Glasgow
Model of patent switch-box and set of switches
Modèle d'aiguilles brevetées pour changement de voie
Modell eines patentirten Weichenkastens und einem Paar Weichen
Modello di casotto da scambi ferroviari patentato e serie di scambi
- 3 DERING, G. E., Lockleys, Welwyn, Hertfordshire (Appendix, pp. 244-5)
Improved permanent way for railways
Voie ferrée perfectionnée de chemins de fer
Verbessertes Geleise für Eisenbahnen
Armamento ferroviario perfezionato
- 4 ECONOMIC PERMANENT WAY COMPANY, 19 Great George-street, Westminster, London (Appendix, p. 243)
Railway sleepers and plant; permanent way and rails
Traverses et matériel de chemins de fer
Eisenbahnschwellen etc.; Schienen und Geleise
Traversine, e materiale per la costruzione ferroviaria, armamento ferroviario e rotaie
- 4A FAIRLIE, R. F., 36 Gracechurch-street, London
Models of patent duplex locomotive engines, and drawings
Modèles de locomotives à double effet brevetées, et dessins
Modelle von patentirten Duplex-Locomotiven und Zeichnungen
Modello di locomotive a doppia azione, e disegni
- 5 FOWLER, J., & Co., 71 Cornhill, London
Locomotive engine—*Locomotive*
Locomotive—*Locomotiva*
- 6 GORDON, ALICE ISABEL, 46 Princes Gate, Hyde-park, London
Means of communication between passenger, guard, and engine-driver, and between trains and stations
Méthode d'établir une communication entre le voyageur et les conducteurs et entre les trains en marche et les stations
Communications-Methode zwischen Passagieren, Schaffnern und Maschinenführern, und zwischen Zügen und Stationen
Apparato di comunicazione tra i viaggiatori per ferrovie e i conduttori, e tra i treni e le stazioni
- 7 HUGHES, H., & Co., Falcon Railway Plant Works, Loughborough
Small tank locomotive engine
Petite locomotive à réservoir
Locomotive mit kleinem Wasserbehälter
Locomotiva con piccola cisterna
- 8 JEFFRIES, W., 3 Cooper's-road, Old Kent-road, London
Model of lever for working railway switches
Modèle de levier pour faire fonctionner les changements de voie de chemin de fer
Modell eines Hebels für Eisenbahnweichen
Modello di leva per operare gli scambi ferroviari
- 9 KITSON & Co., Airedale Foundry, Leeds
Locomotive engine—*Locomotive*
Locomotive—*Locomotiva*
- 10 LILLESALL COMPANY, Shiffnall, Shropshire
Locomotive—*Locomotive*
Locomotive—*Locomotiva*
- 10A MESNIL, BARON OSCAR DE, Brussels
Locomotive engine—*Locomotive*
Locomotive—*Locomotiva*
- 10B MORGAN & HOWARTH, 90 Edgware-road, London
Day and night signalling, safety and lighting apparatus
Signaux de jour et de nuit, appareil de sûreté et d'éclairage
Tag- und Nachtsignale, Sicherheits- und Beleuchtungs-Apparat
Segnali di giorno e di notte, apparato di sicurezza e d'illuminazione
- 11 OWEN'S PATENT WHEEL TIRE AND AXLE COMPANY (Limited), Phoenix Iron Works, Rotherham (Appendix, p. 243)
Wheels and tires
Roue et bandages
Räder und Radschienen
Ruote e cerchioni
- 12 OWEN, W. L., Newport, Monmouth
Locking apparatus for railway switches and signals
Appareil pour retenir les aiguilles de chemin de fer et les signaux
Apparat, um Eisenbahnweichen und Signale zurückzuhalten
Apparato per serrare gli scambi e segnali ferroviari
- 13 POOLEY, H., & SON, Albion Foundry, Liverpool (Appendix, pp. 246-7)
Railway and other weighing machinery
Bascules de chemin de fer, etc.
Eisenbahn- und andere Wagen (zum Wiegen)
Meccanismi da pesare per ferrovie ed altro
- 14 PREECE, W. H., Assoc. Inst. C.E., 12 East-park-terrace, Southampton
Electrical instruments for railway signalling
Signaux électriques à l'usage des chemins de fer
Electrische Instrumente für Eisenbahnsignale
Strumenti elettrici per segnali ferroviari
- 15 RICHARDSON, R., 26 Great George-street, Westminster, London
Iron permanent way, and a new iron fastening for rails
Voie ferrée, et nouveau système de fixer les rails
Eisernes Geleise und eine neue eiserne Klammer für Schienen
Armamento ferroviario in ferro e sistema nuovo di fissare i raili
- 16 ROBINSON, J., Greenfield, Manchester
Model of locomotive engine
Modèle de locomotive
Modell einer locomotive
Modello di locomotiva

17 SAXBY & FARMER, Canterbury-road, Kilburn, London (Appendix, pp. 248-9)
Models of patent railway signals, &c.
Modèles de signaux de chemins de fer brevetés
Modelle von patentirten Eisenbahnsignalen
Modelli di segnali ferroviari patentati, ecc.

18 SPENCER, JOHN, & SONS, Newburn Steel Works, Newcastle-on-Tyne (App. p. 251)
Railway springs, buffers, steel, files, &c.
Ressorts, tampons, aciers, limes, etc.
Eisenbahn-Springfedern, Buffer, Stahl, Feilen etc.
Molle, zaffi, acciai, lime, ecc., per ferrovie

19 STEPHENSON, ROBERT, & Co., South-street, Newcastle-upon-Tyne (Appendix, p. 250)
Locomotive engine
Locomotive
Locomotive
Locomotiva

20 STIDDER, J. G., 6 Palace-road, Lambeth, London
Railway carriage axle-box, with hollow axle
Boîte d'essieu pour wagon de chemin de fer, avec essieu creux
Achsenbüchse für Eisenbahnwagen mit hohler Achse
Scatola di asse di carrazzada ferrovia con asse cavato

21 THOMSON, R. W., 3 Moray-place, Edinburgh
Traction engine for drawing passenger carriages, &c. (at Billancourt)
Machine à vapeur pour traîner les voitures à passagers sur les routes ordinaires, etc. (à Billancourt)
Zugdampfmaschine für den Personentransport auf Strassen etc. (ausgestellt zu Billancourt)
Motore a trazione per tirare carrozze da viaggiatori, ecc. (a Billancourt)

22 TOD, JAMES, & SON, 29 Leith-walk, Edinburgh
Railway spike
Cheville de chemin de fer
Eisenbahnnagel
Chiavarda da ferrovia

23 TURTON, THOMAS, & SONS, Sheaf Works, Sheffield (Appendix, p. 127)
Railway springs, buffers, &c.
Ressorts, tampons, etc.
Eisenbahn-Federn, Buffer etc.
Molle, zaffi, ecc., da ferrovia

CLASS LXIV.

Telegraphic Apparatus and Processes.
Matériel et Procédés de la Télégraphie.
Telegraphische Apparate und Processe.
Apparati e Processi Telegrafici.

(For detailed classification, see p. xxv.)
(*Voir le système de classification, p. xxv.*)
(Für detaillirte Classification, siehe Seite xxv.)
(*Vedasi il sistema di classificazione, p. xxv.*)

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Warington W. Smyth, Esq.
H. S. Thompson, Esq.
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H. Hussey Vivian, Esq. M.P.
Joseph Whitworth, Esq.

In conjunction with the Council of the Royal Institution of Civil Engineers.
Captain Webber, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

C. Wheatstone, Esq., F.R.S.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Lord Sackville Cecil.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BOURNE, JOSEPH & SON, Denby Potteries, Derbyshire
Patent vitrified stoneware insulators
Grès vitrifié pour isoler les fils télégraphiques (breveté)

Vitrificirtes Steingut zur Absonderung von Telegraphdrähten (patentirt)
Grès vitrifié ad isolare i fili telegrafici (patentato)

2 HENLEY, W. T., 27 Leadenhall-street, London, and North Woolwich
Submarine electric telegraph cables
Câbles sous-marins pour la télégraphie électrique
Unterseeischer electrischer Telegraphkabel
Cavi telegrafici elettrici sottomarini

3 HOOPER, WILLIAM, 7 Pall Mall East, London
Telegraph cables
Câbles télégraphiques
Telegraphkabel
Cavi telegrafici

4 *INDIA RUBBER AND TELEGRAPHIC WORKS

COMPANY, Silvertown, London

Telegraphic cables

Câbles télégraphiques

Telegraphkabel

*Cavi telegrafici*5 *MACINTOSH, C., & Co., Craven-chambers,
Craven-street, London

Specimens of wire for telegraphic purposes

Spécimens de fils pour télégraphe électrique

Drahtproben für telegraphische Zwecke

Campioni di fili metallici per usi telegrafici

6 *MUSSELWHITE, J., Devizes

Electrical apparatus

Appareil électrique

Electrischer Apparat

Apparati elettrici

7 NICOLL, D., Oakland's Hall, Kilburn, London

Specimens of wires for underground telegraphic purposes

*Spécimens de fils métalliques pour télégraphie**électrique souterraine*

Drahtproben für unterirdische Telegraphen

Campioni di fili metallici per uso della telegrafia sotterranea

7A REUTER, JULIUS, 1 Royal Exchange-buildings, London

Specimen of the submarine telegraph cable established in 1866 between England and Hanover

Spécimen du câble télégraphique sous-marin établi en 1866 entre l'Angleterre et le Royaume de Hanovre

Probe von dem unterseeischen Kabel, hergestellt im Jahre 1866 zwischen England und Hannover

Campione della gomena submarina stabilita nel 1866 tra l'Inghilterra e l'Annover

8 SIEMENS BROTHERS, 3 Great George-street, Westminster, London

Telegraphic apparatus

Appareils télégraphiques

Telegraphischer Apparat

Apparati telegrafici

9 *VARLEY, C. & S. A., 66 Roman-road, Holloway, London

Electric telegraph apparatus

Télégraphe électrique

Electrischer Telegraph-Apparat

Apparati elettro-telegrafici

10 HER MAJESTY'S SECRETARY OF STATE FOR WAR, London

Wheatstone's military electric telegraph, &c.

Télégraphe électrique pour l'armée (système Wheatstone), etc.

Electrischer Telegraph-Apparat für den Gebrauch des Heeres (Wheatstone's System)

Telegrafo elettrico per uso militare (sistema di Wheatstone)

CLASS LXV.

Civil Engineering, Public Works, and Architecture.

Matériel et Procédés du Génie Civil, des Travaux Publics et de l'Architecture.

Civilingenieurkunst, öffentliche Bauten und Architectur.

Genio Civile, Lavori Pubblici e Architettura

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

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Joseph Whitworth, Esq.

In conjunction with the Council of the Royal Institution of Civil Engineers.

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Major A. Clarke, R.E.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 ANDERSON, D., & SON, Belfast, and 23 Billiter-street, London

Roofing, sheathing, and boiler felt; inodorous felt

Feutres pour toitures, doublages et chaudières; feutres inodores

Dachfilz, Schiffsfilz, und Dampfkesselfilz; geruchloser Filz

Feltro per tettoie, dobblaggio e caldaie; feltro inodoro

- 2 THE ARCHITECTURAL MUSEUM, South Kensington, London (Appendix, 254)
Prize objects in arts cognate to architecture, by various British art workmen (see Architectural Court)
Objets d'art ayant rapport à l'architecture, auxquels des prix ont été décernés, et exécutés par des ouvriers-artistes anglais (voir la Salle d'Architecture)
Preis-Kunstwerke, die sich auf Architectur beziehen, von verschiedenen Englischen Kunstarbeitern (siehe architectonische Abtheilung)
Oggetti d'arte affini all' architettura premiati, prodotti da artefici Britannici (vedasi Compartimento d' Architettura)
- 3 THE ARCHITECTURAL POTTERY COMPANY, Poole, Dorset (see Architectural Court)
Floor and wall tiles
Carreaux pour dallage et cloisons
Ziegel für Fussböden und Wände
Pianelle da pavimento e da muro
- 4 BEARD & DENT, 21 Newcastle-street, Strand, London
Patent cast-lead traps for water closets
Tubes courbés de plomb moulé pour water closets
Patentirte gegossene Bleiklappen für Abtritte
Ribalte in piombo fuso per latrine (patentate)
- 5 BETHELL, W., King William-street, London
Specimens of creosoted woods
Bois conservés par la créosote
Muster von Hölzern, durch Creosot bewahrt
Campioni di legni preservati dal 'creosote'
- 6 BLANCHARD, M. H., 74 Blackfriars-road, London, s.
Terra cottas executed for the South Kensington Museum; frame, mullion, and transom of window in terra cotta (see also Testing House)
Objets de terra cotta fabriqués pour le Musée de South Kensington, à Londres; chassis, meneau et traverse de fenêtre en terra cotta (voir le Bâtiment des Essais)
Arbeit in Terra-Cotta für das Museum in South-Kensington; Rahmen, Pfosten und Querbalken von Fenstern in Terra-Cotta (siehe gleichfalls das Probierhaus)
Terre cotte eseguita pel Museo South Kensington; telaio, battente, e tramezza di finestra in terra cotta (vedasi anche l'Edificio degli Esperimenti)
- 7 BLASHFIELD, J. M., Stamford
Terra cottas executed for the South Kensington Museum; terra cotta porch, including flooring and window, and three chimney shafts (see Testing House and Architectural Court)
Objets de terra cotta fabriqués pour le Musée de South Kensington, à Londres; portique en terra cotta, avec plancher et fenêtre; trois cheminées (voir le Bâtiment des Essais et la Salle d'Architecture)
Arbeiten in Terra-Cotta für das Museum in South-Kensington; aus Terra-Cotta eine Vorhalle, einschliesslich des Fussbodens und Fensters, und drei Schornsteine (siehe das Probierhaus und die architectonische Abtheilung)
Terre cotte eseguiti pel Museo South Kensington; portico in terra cotta, pavimento e finestra inclusi, e tregole di cammino (vedasi l'Edificio degli Esperimenti e il Compartimento d'Architettura)
- 8 BOOTE, T. & R., Waterloo Potteries, Burslem
Internal and external wall and floor tiles (see Testing House)
Carreaux pour murailles, cloisons, et dallage (voir le Bâtiment des Essais)
Ziegel für die Aussen- und Innenseite der Wände und für den Fussboden (siehe das Probierhaus)
Muro interno ed esterno e pianelle da pavimento (vedasi l'Edificio degli Esperimenti)
- 9 *BOWLEY, R. K., Sydenham, near London
Model of Händel festival orchestra and performers at the Crystal Palace
Modèle de l'orchestre et des exécutants à l'occasion de la fête de Händel, au Palais de Cristal
Modell des Orchesters und der Mitwirkende bei Gelegenheit des Händelfestes im Crystallpalaste
Modello dell' orchestra e musicanti del Gran Concerto Händel al Palazzo di Cristallo
- 10 BRIDGMAN, A., 158 Westminster-road, Lambeth, London
Architectural drawings—*Dessins d'architecture*
Architectonische Zeichnungen
Disegni architettonici
- 11 BROOKE, EDWARD, Fire Clay Works, near Huddersfield
Fire bricks, sanitary pipes, chimney tops, &c.
Briques réfractaires, tuyaux de drainage, mitres de cheminées, etc.
Feuerfeste Backsteine, Ableitungsröhren, Aufsätze für Schornsteine etc.
Mattoni a prova di fuoco, condotti sanitari, fumaiole, ecc.
- 11A BUNNETT & COMPANY, New Cross Works, Deptford
Revolving shutters, Venetian blinds and window frames
Fermetures tournantes, persiennes, et chassis de fenêtre
Drehfensterläden, Jalousien, Fensterrahmen
Scuri ritornanti, persiane, e intelajature
- 12 BURT & POTTS, York-street, Westminster, London
Water-tight wrought-iron windows and frame (see Testing House)
Fenêtres et chassis de fenêtres de fer forgé, imperméables à l'eau (voir le Bâtiment des Essais)
Wasserdichte schmiedeeiserne Fenster und Rahmen (siehe Probierhaus)
Finestre e telaio impervii all' acqua in ferro battuto (vedasi l'Edificio degli Esperimenti)

- 13 CHALMERS, J., 2 Bickerton-terrace, Haverstock-hill, London
Drawings of proposed Channel railway
Dessins du chemin de fer projeté sous La Manche
Zeichnung der projectirten Canal-Eisenbahn über die Strasse von Dover und Calais
Disegni della proposta ferrovia nella Manica
- 14 CHATWOOD, S., Lancashire Safe and Lock Works, Bolton
Bank safes, locks, models, &c.
Coffres de sûreté pour banques, serrures, modèles, etc.
Sicherheits-Geldkoffer für Banken, Schlösser, Modelle etc.
Forzieri di sicurezza per le banche, serrature, modelli, ecc.
- 15 CHUBB & SON, 57 St. Paul's Churchyard, London
Locks, safes, &c.
Coffres de sûreté, serrures, etc.
Schlösser und eiserne Geldkoffer etc.
Serrature, forzieri di sicurezza, ecc.
- 16 CLARK & Co., Rathbone-place, Oxford-street, London
Revolving louvre Venetian shutter (see Testing House)
Persienne tournante à lames mobiles (voir le Bâtiment des Essais)
Louvre-Jalousien, die sich umdrehen (siehe Probierhaus)
Persiana a regoli giranti (vedasi l'Edificio degli Esperimenti)
- 17 CLERHEW & LASCELLES, 121 Bunhill-row, Finsbury, London
Wooden porches and window frames (see Testing House)
Portiques et chassiss de fenêtre en bois (voir le Bâtiment des Essais)
Hölzerne Vorhallen und Fensterrahmen (siehe Probierhaus)
Portici e intelaiature da finestre in legno (vedasi l'Edificio degli Esperimenti)
- 18 CLIFF, J., & SON, Wortley, near Leeds
Fire bricks, drain pipes, fire clay retorts, and articles in terra cotta, &c.
Briques réfractaires, tuyaux de drainage, cornues d'argile réfractaire, et objets en terra cotta
Feuerfeste Backsteine, Abzugsröhren, feuerfeste Thonretorten etc.
Mattoni a prova di fuoco, condotti da scoli, storte in creta da fuoco, ecc.
- 19 CLIFF, JOHN, Princes-street, Lambeth
Stoneware—*Poteries de grès*
Steingut—*Vasellami in terra grès*
- 20 COLE, HENRY, C.B., South Kensington Museum, London (Appendix, p. 251)
Specimens of enamelled fireproof ceilings
Spécimens de plafonds émaillés à l'épreuve du feu
Muster von emailirten feuerfesten Zimmerdecken
Saggi di soffitti a prova di fuoco smaltati
- 21 COLLIVER, THOMAS, Bangor Slate Quarries, Bangor
Roofing slates (see Testing House)
Ardoises pour couvertures (voir le Bâtiment des Essais)
Dachschiefer (siehe Probierhaus)
Ardesie da tetti (vedasi l'Edificio degli Esperimenti)
- 22 COLTHURST, SYMONS, & Co., Patent Tile and Pottery Works, Bridgewater
Roofing tiles (see Testing House)
Tuiles pour toitures (voir le Bâtiment des Essais)
Dachziegel (siehe Probierhaus)
Tegole (vedasi l'Edificio degli Esperimenti)
- 22A COMMISSIONERS OF THE RIVER WEAR, Sunderland
Model of Sunderland Docks
Modèle des Docks de Sunderland
Modell der Sunderland-Docken
Modello dei bacini di Sunderland
- 23 CORPORATION OF THE CENTRAL HALL OF ARTS AND SCIENCES, South Kensington, London, through Lieut.-Col. Scott, R.E. (Appendix, p. 251-3)
Model of hall erecting at Kensington
Modèle de la salle en construction à Kensington, près de Londres
Modell einer Halle, die in Kensington im Bau begriffen ist
Modello di aula in costruzione a Kensington
- 24 COTTAM & Co., 2 Winsley-street, Oxford-street, London (Appendix, pp. 302-3)
Cast-iron ridge cresting and terminals (see Testing House)
Faitage et arêtiers en fonte (voir le Bâtiment des Essais)
Gusseiserner Giebelrücken und Endstücke (siehe Probierhaus)
Comignolo, cresta e terminali in ferro fuso (vedasi l'Edificio degli Esperimenti)
- 24A COX, RICHARD R., Shenton-street, Old Kent-road, London
Ornamental and plain internal wall linings (see Testing House)
Panneaux décorés et unis (voir le Bâtiment des Essais)
Verzierte und schlichte Belege für innere Wände (siehe Probierhaus)
Rivestimenti di pareti ad ornati e semplici (vedasi l'Edificio degli Esperimenti)
- 25 DENTON, ARTHUR BAILEY, 22 Whitehall-place, London
Plans of cottages, farm buildings, &c.
Plans d'habitations et de bâtiments ruraux, etc.
Entwürfe für kleine Häuser, Meiereigebäude etc.
Piante di casette, edifiizi rurali, ecc.
- 26 DIGBY, LORD, 39 Belgrave-square, London
Models of cottages for labourers' dwellings
Modèles d'habitations d'ouvriers
Modelle von kleinen Häusern für Arbeitsleute
Modelli di casette per lavoranti

- 27 DOULTON, H., & Co.**, 63 High-street, Lambeth, London (see Architectural Court)
 Drain-pipes, sanitary articles, &c., and chimney pots (see also Testing House)
Tuyaux de drainage, appareils hygiéniques, etc.; mitres (voir le Bâtiment des Essais)
 Abzugsröhren, hygienische Apparate etc.; Aufsätze für Schornsteine (siehe gleichfalls das Proberhaus)
Condotti da scoli, oggetti sanitari, ecc., e fumaiole (vedasi anche l'Edificio degli Esperimenti)
- 28 DUNN, T.**, Manchester
 Drawings of wrought-iron bridge construction
Dessins d'un système de construction de pont en fer forgé
 Zeichnungen der Construction einer schmiedeeisernen Brücke
Disegni per costruzione di ponte in ferro battuto
- 29 EARP, F.**, Kennington-road, London
 Stone carvings (see Architectural Court)
Sculptures en pierre (voir la Salle d'Architecture)
 Steinhauerarbeiten (siehe architectonische Abtheilung)
Sculpture in pietra (vedasi Compartimento d'Architettura)
- 30 EASTWOOD, GEORGE**, 31 Walmgate, York
 Planes, &c.—*Rabots, etc.*
 Hobel etc.—*Tambelloni, ecc.*
- 31 EASSIE, W., & Co. (Limited)**, High Orchard Saw Mills, Gloucester
 Steam pile-driver—*Sonnette à vapeur*
 Dampframmmaschine—*Battipalo a vapeur*
- 32 *FIELD, W.**, 13 Parliament-street, London
 Architectural stone and marble work (see Architectural Court)
Pierres et marbres ouvrés pour constructions (voir la Salle d'Architecture)
 Architectonische Stein- und Marmorarbeit (siehe architectonische Abtheilung)
Lavori architettonici in pietra e in marmo (vedasi Compartimento d'Architettura)
- 33 FORSYTH, JAMES**, 8 Edward-street, Hampstead-road, London
 Architectural and monumental sculpture (see Architectural Court)
Sculptures pour l'architecture et pour monuments (voir la Salle d'Architecture)
 Sculpturen für Architectur und Monumente (siehe architectonische Abtheilung)
Sculptura architettonica e monumentale (vedasi Compartimento d'Architettura)
- 34 GALLICHAH & Co.**, Victoria Pottery, Leigh, Essex
 Sanitary drain pipes, and stoneware
Tuyaux de drainage sanitaires, et poteries de grès
 Gesundheitsabzugsröhren und Steingut
Condotti sanitari da scoli, e vasellami in terra grès
- 35 THE GLYNRHONWY SLATE COMPANY (Limited)**, Carnarvon, North Wales
 Roofing slates (see Testing House)
Ardoises pour couvertures (voir le Bâtiment des Essais)
 Dachschiefer (siehe Proberhaus)
Lavagne da tetti (vedasi l'Edificio degli Esperimenti)
- 36 GODWIN, W.**, Lugwardine
 Tiles for floors and walls (see Architectural Court)
Carreaux pour planchers et cloisons (voir la Salle d'Architecture)
 Ziegel für den Fussboden und die Wände (siehe architectonische Abtheilung)
Pianelle per pavimenti e muri (vedasi Compartimento d'Architettura)
- 37 GOTTO, FREDERICK**, The Cross, Leighton Buzzard
 Cast-iron self-discharging effluvia trap
Valvule en fonte se vidant d'elle-même, pour empêcher les exhalaisons des égouts
 Gusseiserne Klappe, die von selbst die Effluvia entleert
Ribaltia in ferro fuso automatica espellente effluvi
- 38 GREAVES, J. W.**, Portmadoc
 Roofing slates—*Ardoises pour couvertures*
 Dachschiefer—*Lavagne da tetti*
- 39 GREENSLADE, E. A. & W.**, Thomas-street, Bristol
 Planes—*Rabots*—Hobel—*Tambelloni*
- 40 GUYNAN, J., & Son**, 67 Wells-street, Oxford-street, London
 Window blinds on spring rollers, outside blinds and railway curtain lathes
Stores pour croisées, rouleaux à ressorts, et coulisseaux à rainure
 Sich selbst aufrollende Rouleaux, Jalousien für die Aussenseite und Rollen für Eisenbahnvorhänge
Tendine da finestra su cilindri e scatto, tendine esterne, e cilindri per tendine da ferrovia
- 41 *HAMILTON & BINYON**, 106 York-road, Lambeth, London
 Locks—*Serrures*
 Schlösser—*Serrature*
- 42 *HARMER, J. M.**, 10 Thornhill-bridge-place, Caledonian-road, London
 Architectural models
Modèles d'architecture
 Architectonische Modelle
Modelli architettonici
- 43 HARPER & MOORES**, Lower Delph Works, Stourbridge
 Fire bricks, &c.
Briques réfractaires, etc.
 Feuerfeste Backsteine etc.
Mattoni da fuoco, ecc.
- 44 HARRIS, A. N.**, Ryde, Isle of Wight
 Stone carvings (see Architectural Court)
Sculptures en pierre (voir la Salle d'Architecture)

- Steinhauerarbeiten (siehe architectonische Abtheilung)
Sculture in pietra (vedasi Compartimento d'Architettura)
- 45 HART & SON (see Class 40, and Appendix, p. 122)
 Iron finials and two dormers (see Testing House)
Faitages en fer du pignon et deux lucarnes (voir le Bâtiment des Essais)
 Eiserne Endstücke und zwei Dachfenster (siehe Probierhaus)
Comignoli in ferro e due abbaini (vedasi l'Edificio degli Esperimenti)
- 46 HERNULEWICZ, E., & Co., 43 Fish-street-hill, Eastcheap, London
 Iron gates, fences, &c.
Grilles, clôtures, etc., en fer
 Eiserne Thorwege, Gehäge etc.
Cancelli, ringhiere, ecc.
- 47 HILL & SMITH, Brierly-hill Works, Dudley
 Iron gates and railing
Grilles et clôtures
 Eiserne Thorweg und Geländer
Cancelli e ringhiere
- 48 *HILLMER, B., 5 London Walk, London
 Model for Channel railway
Modèle du chemin de fer projeté sous La Manche
 Modell der Canal-Eisenbahn
Modello pella ferrovia della Manica
- 49 HOBBS, HART, & Co., 76 Cheapside, London
 Safes, locks, &c.
Coffres de sûreté, serrures, etc.
 Eiserne Geldkoffer, Schlösser etc.
Forzieri di sicurezza, serrature, ecc.
- 50 HODGSON, E. D., 5 Paper-buildings, Temple, London
 Safes, locks, &c.
Coffres de sûreté, serrures, etc.
 Eiserne Geldkoffer, Schlösser etc.
Forzieri di sicurezza, serrature, ecc.
- 51 HUMPHREYS & Co. (Limited), Carnarvon, North Wales
 Wall linings and ornamental enamelled slates (see Testing House)
Ardoises pour le revêtement des murs, ardoises d'ornement émaillées (voir le Bâtiment des Essais)
 Belege für Wände und verzierte emailirte Schiefer (siehe Probierhaus)
Lavagne smaltate ad ornati per rivestimenti di muri (vedasi l'Edificio degli Esperimenti)
- 52 JENNINGS, GEORGE, Palace-wharf, Stangate, London (Appendix, p. 255)
 Building and sanitary appliances
Appareils hygiéniques, employés dans la construction des bâtimens
 Gegenstände für Bauten und gesundheitliche Vorkehrungen
Cose attenenti a costruzioni e sanità
- 54 KERSHAW, THOMAS, 38 Baker-street, Portman-square
 Specimens of painted wall decorations (see Testing House)
Spécimens de peintures en décors (voir le Bâtiment des Essais)
 Muster von gemalten Wanddecorationen (siehe Probierhaus)
Saggi di decorazioni di muri dipinti (vedasi l'Edificio degli Esperimenti)
- 55 KNOWLES, JOHN, Hawley New-wharf, Chalk Farm-road, London
 Fire bricks, drain pipes, and terra cotta chimney pots
Briques réfractaires, tuyaux de drainage, et mitres de terra cotta
 Feuerfeste Backsteine, Drainiröhren und Kaminrippen von Terra-Cotta
Mattoni a prova di fuoco condotti da scola, e fumaiuole in terra cotta
- 56 LACY, H. C., Withdeane-hall, near Brighton
 Door to open right or left
Porte pouvant s'ouvrir à droite ou à gauche
 Eine Thüre, die sich rechts und links öffnet
Porta per aprire a destra o a sinistra
- 57 *LEWIS, THOS. ROBERT, 16 Gould-sq., London
 Terra cotta clay and articles manufactured therefrom
Argile à terra cotta, et objets fabriqués de cette argile
 Terra-Cotta-Thon und Gegenstände daraus
Argilla per terra cotta e oggetti che se ne fanno
- 58 LOUGHTEA SLATE QUARRY COMPANY, Killaloe, Ireland (belonging to the late Markham Browne, Esq.)
 Roofing slates—*Ardoises pour couvertures*
 Dachschiefer—*Lavagne da tetti*
- 59 MAJOR, H. J. & C., The Patent Tile and Bath Brick Works, Bridgewater
 Roofing and flooring tiles (see Testing House)
Carreaux de dallage et pour toitures (voir le Bâtiment des Essais)
 Ziegel für Dächer und zum Pflastern (siehe Probierhaus)
Tegole e piastrelle da pavimenti (vedasi l'Edificio degli Esperimenti)
- 60 MALKIN & Co., Burslem
 Encaustic tiles (see Architectural Court)
Carreaux encaustiques (voir la Salle d'Architecture)
 Emailirte Ziegel (siehe architectonische Abtheilung)
Piastelle ad encausto (vedasi Compartimento d'Architettura)
- 61 MALLET, ROBERT, 7 Westminster-chambers, London
 Patent buckled iron plates for flooring and other structures, &c.
Tôles de fer boutées pour planchers et autres constructions (brevetées)
 Patentirte Eisenplatten mit Rinnen für den Tappbaden und andere Anwendungen etc.
Lastroni in ferro (patentati) aggrappati per pavimenti ed altre strutture, ecc.

- 62 MANICO, LIEUT. EDWARD**, 19 Bedford-street, Covent-garden, London
Models of iron cradles, for sea works
Modèles de berceaux de fer pour constructions maritimes
Modelle von eisernen Rosten für Seebauten
Modelli di cuna in ferro, per lavori di mare
- 63 MAW & Co., Benthall, Broseley, Shropshire**
Mosaic and encaustic tile pavements, majolica wall tiling, &c. (see Architectural Court)
Carreaux de mosaïque, encaustiques pour carrelage, carreaux de majolique pour le revêtement des murs, etc. (voir la Salle d'Architecture)
Mosaik- und emailirte Ziegel zum Pflastern, Majolica- und Email-Ziegel für Wände etc. (siehe architektonische Abtheilung)
Pavimenti in piastrelle a mosaico ed encaustico, piastrelle da pareti in maiolica, ecc. (vedasi Compartimento d'Architettura)
- 64 MINTON, HOLLINS, & Co., Stoke-upon-Trent**
Encaustic tiles (see Architectural Court); floor and wall tiling (see Testing House)
Carreaux encaustiques (voir la Salle d'Architecture); carreaux de dallage et pour cloisons (voir le Bâtiment des Essais)
Emailirte Ziegel (siehe architektonische Abtheilung); Ziegel für den Fussboden und die Wände (siehe Probierhalle)
Piastrelle ad encausto (vedasi Compartimento d'Architettura); piastrelle per pavimento e per parete (vedasi l'Edificio degli Esperimenti)
- 64A MOULÉ'S PATENT EARTH CLOSET COMPANY** (Limited), 29 Bedford-street, Strand, London
Earth closets—*Latrines terreuses*
Erdclosette—*Comodi à terra*
- 65 NEWTON, M. B., King's Cross Goods Station, London** (see Testing House)
Chimney tops; down spouting, window flower boxes, moulded bricks, &c., manufactured by J. Cliff & Son, Wortley, near Leeds
Mitres, gouttières, jardinière de fenêtre, briques moulées, etc., fabriquées par J. Cliff et Fils, à Wortley, près de Leeds
Schornsteinaufsätze, Dachrinnen, Blumenkasten für Fenster, geformte Backsteine etc., fabricirt von J. Cliff und Sohn, zu Wortley, bei Leeds
Fumairole, grondaie, cassettoni da fiori per finestra, mattoni a modanatura, ecc., fabbricati da J. Cliff e figlio, a Wortley, presso Leeds
- 65A NICHOLL, BENJ.**, 42 Regent-st., London
Slabs and models—*Dalles, carreaux et modèles*
Platten und Modelle—*Quadrelli e modelli*
- 66 NICHOLLS, THOS.**, Lambeth, London
Stone carvings (see Architectural Court)
Sculptures en pierre (voir la Salle d'Architecture)
Steinhauerarbeiten (siehe architektonische Abtheilung)
Sculture in pietra (vedasi Compartimento d'Architettura)
- 67 ORDISH & LE FEUVRE**, 18 Great George-street, London
Portions of a rigid suspension bridge now being erected over the Moldau, at Prague
Parties d'un pont suspendu sans mouvement oscillatoire, actuellement en construction sur la Moldau, à Prague
Theile einer unbiegsamen Hängebrücke, die gegenwärtig in Prag über die Moldau im Bau begriffen ist
Porzioni di un ponte sospeso rigido in costruzione sulla Moldava a Praga
- 68 PATENT CONCRETE STONE COMPANY** (Limited), 2 Queen-street-place, Southwark-bridge, London
Ransome's patent artificial stone
Pierres artificielles brevetées de Ransome
Ransome's patentirter; künstlicher Stein
Pietra artificiale di Ransome (patentata)
- 69 PEAKE, THOMAS**, The Tileries, Tunstall
Roofing tiles (see Testing House)
Tuiles pour toitures (voir le Bâtiment des Essais)
Dachziegel (siehe Probierhaus)
Tegole (vedasi l'Edificio degli Esperimenti)
- 70 PULHAM, JAMES**, Broxbourne, Herts (see Architectural Court)
Architectural and garden decorations in terra cotta
Objets d'ornementation en terre cotta, pour l'architecture et jardins
Architektonische und Garten-Decorationen aus Terracotta
Decorazioni architettrali e per giardini in terra cotta
Mulready's tomb in terra cotta, near Testing House
Tombeau du peintre Mulready en terre cotta, près du Bâtiment des Essais
Mulready's Grab in Terra-Cotta, nahe beim Probierhause
Tomba di Mulready in terra cotta, presso all'Edificio degli Esperimenti
- 70A RANDOLPH, ELDER, & Co., Glasgow** (see Class 66)
Model of floating dock at Cochín China, constructed for the French Government
Modèle du dock flottant construit à Cochín Chine pour le Gouvernement français
Modell eines schwimmenden Werftes zu Cochinchina, construiert für die Französische Regierung
Modello del bacino galleggiante a Cochinchina costruito pel Governo francese
- 71 RANSOME, F.**, Southwark, London
Works in Ransome's patent artificial stone (see Architectural Court)
Ouvrages en pierres artificielles brevetées de Ransome (voir la Salle d'Architecture)
Arbeiten aus Ransome's patentirtem künstlichen Stein (siehe architektonische Abtheilung)
Lavori in pietra artificiale di Ransome patentata (vedasi Compartimento d'Architettura)

72 REDFERN, J. F., 105 Charlotte-street, London
Enamel fresco (see Architectural Court)
Peinture à fresque émaillée (voir la Salle d'Architecture)
Enailirtes Frescogemälde (siehe architectonische Abtheilung)
Fresco a smalto (vedasi Compartimento d'Architettura)

73 *REDGRAVE, GILBERT, 18, Hyde-park-gate South, London
Specimens of coloured designs on plaster (see Testing House)
Spécimens de dessins en couleur sur plâtre (voir le Bâtiment des Essais)
Muster von gefärbten Entwürfen in Gips (siehe Proberhaus)
Campioni di disegni colorati in gesso (vedasi l'Edificio degli Esperimenti)

73A ROBBINS & SON, Wolverhampton
Locks—*Serrures*
Schlösser—*Serrature*

74 ROBINSON, A. A., 137 Fenchurch-street, London
Slates from the Bowydd, Cilgwyn, and Pen-y-bryn Quarries (see Testing House)
Ardoises des carrières de Bowydd, Cilgwyn, et Pen-y-bryn, pays de Galles (voir le Bâtiment des Essais)
Schiefer von den Brüchen von Bowydd, Cilgwyn und Pen-y-bryn (siehe Proberhaus)
Lavagne dalle Cave di Bowydd, Cilgwyn, e Pen-y-bryn (vedasi l'Edificio degli Esperimenti)

75 ROOKE, GEORGE, 27 Bywater-street, Chelsea, London
Marble mosaic (see Architectural Court); incised work in plaster (see Testing House)
Mosaïque de marbre (voir la Salle d'Architecture); plâtrage ciselé (voir le Bâtiment des Essais)
Mosaik aus Marmor (siehe architectonische Abtheilung)
Mosaico in marmo (vedasi Compartimento d'Architettura)

76 RÜST, J. & Co., Carlisle-street, Lambeth, London
Mosaic for architectural purposes (see Architectural Court)
Mosaïque pour l'architecture (voir la Salle d'Architecture)
Mosaik für architectonische Zwecke (siehe architectonische Abtheilung)
Mosaico per usi d'architettura (vedasi Compartimento d'Architettura)

77 SANDHAM, HENRY, South Kensington Museum, London (executed by Robert Hopkins)
Coloured cements for wall decoration, and interior wall tiling (see also Testing House)
Ciments de couleur pour la décoration des murs, et pour le revêtement des cloisons (voir aussi le Bâtiment des Essais)
Gefärbte Cemente für Wanddecoration, und Ziegel für innere Wände (siehe gleichfalls Proberhaus)

Cementi colorati per decorazioni murali, e pianelle per pareti (vedasi anche l'Edificio degli Esperimenti)

78 SCIENCE AND ART DEPARTMENT, South Kensington, London (Appendix, p. 257)
Ornamental open boiler house and chimney-shaft, erected by the British Executive, in terra cotta and brickwork, according to a design suggested by the Mosque of Syud Oosman's at Ahmedabad, about 1458 A.D.

Cheminée et bâtiment d'ornementation destiné à servir d'abri aux chaudières: cette construction, faite de briques et de terra cotta, a été élevée par les soins de la Commission Exécutive d'après un dessin inspiré par la Mosquée de Syud Oosman, à Ahmedabad, vers 1458

Verziertes offenes Haus für den Dampfkessel und den Schaft des Schornsteines, von der Britischen ausführenden Behörde in Terra-Cotta und Backsteinen ausgeführt, nach einem Entwurf, hervorgerufen durch die Moschee Syud Oosman's in Ahmedabad, gegen 1458 A.D.

Capannone da caldaia aperto d'ornamento e fumaiola eretto dall'Esecutivo Britannico in terra cotta e mattoni dietro un disegno suggerito dalla Moschea di Syud Oosman a Ahmedabad, circa 1458 A.D.

79 SCOTT, G. GILBERT, R.A., Spring-gardens, London (Appendix, p. 256)
Model of the national monument erecting in Hyde-park, London, to the memory of H.R.H. the Prince Consort of England (subject to some alterations)

Modèle du monument national, en construction à Hyde-park, Londres, élevé à la mémoire du Prince Albert, époux de S. M. la Reine Victoria (sujet à quelques modifications)

Modell des nationalen Monumentes, das im Hydepark, zu London, zum Gedächtniss an seine Königliche Hoheit den Prinzgemahl von England errichtet wird (offen für einige Veränderungen)

-Modello del monumento nazionale in costruzione in Hyde-park a Londra, in memoria di fu S.A.R. il Principe Consorte (modificabile)

80 SEYMOUR, JOHN, Tower-lane, Taunton
Stone carving (see Architectural Court)
Sculptures en pierre (voir la Salle d'Architecture)
Steinhauerarbeit (siehe architectonische Abtheilung)
Scultura in pietra (vedasi Compartimento d'Architettura)

81 SIEMENS, C. W. (see Class 64)
Model of regenerative gas furnace, watermeter, governor, and pyrometer
Modèle de four à gaz et à chaleur régénérée, compteur à eau; régulateur et pyromètre
Modell eines Gas erzeugenden Gasofens, Wassermesser, Regulator und Pyrometer
Modello di fornace rigenerativa a gas, misuratore ad acqua; regolatore, e pirometro

82 SKIDMORE'S ART MANUFACTURES AND CONSTRUCTION IRON COMPANY (see Class 40.)
 Iron finials on gable and two dormers (see Testing House)
Faitages en fer du pignon et deux lucarnes (voir le Bâtiment des Essais)
 Eisener Giebelendstücke und zwei Dachfenster (siehe Probierhaus)
Comignoli per pignone e due abbaini

83 SISSONS AND WHITE, Victoria-dock, Hull (Appendix, p. 258)
 Model of steam pile-driver
Modèle de sonnette à vapeur
 Modell einer Dampfframmmaschine
Modello di battipalo a vapore

84 SMITH, GEORGE, AND CO., 13 South-street, Grosvenor-square, London
 Specimens of the brick-work executing for the South Kensington Museum
Specimens du briquetage qui se fait pour le Musée de South Kensington, à Londres
 Proben der Backsteinarbeit, die für das Museum in South-Kensington ausgeführt wird
Saggi di lavori in mattoni in esecuzione pel Museo South Kensington

85 SMITH & TURNER, 50 Bartholomew-close, London
 Patent door springs (see Testing House)
Ressorts brevetés pour portes
 Patentirte Thürfedern (siehe Probierhaus)
Molle per porte (patentate)

86 SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES AND COMMERCE, John-street, Adelphi, London (Appendix, pp. 259–60.)
 Prize-objects of art workmanship by British workmen
Objets d'Art auxquels des prix ont été décernés, et exécutés par des ouvriers-artistes anglais
 Preis-Gegenstände künstlicher Arbeit von Britischen Arbeitern gemacht
Oggetti d'arte premiati, prodotti da artefici britannici

Specimens of tablets affixed by the Society to houses noted as the residences of remarkable men
Spécimens de carreaux attachés par la Société sur le devant des maisons où ont demeuré des hommes d'élite
 Muster von Tabletten, welche von der Gesellschaft an Häusern, welche die Wohnungen berühmter Männer gewesen sind, angebracht worden sind
Campioni di tavolette di cui si serve la società per indicare case ov' hanno dimorato gli uomini conosciuti

87 SOUTH KENSINGTON MUSEUM, London (App. p. 260)
 Hinge invented by the late Capt. Fowke, R.E., as a substitute for door-springs
Gond inventé par feu le Capitaine Fowke, pour remplacer les ressorts de porte

Thürhinge von dem verstorbenen Capitain Fowkes, R.E., als Ersatzmitte für Thürfedern, erfunden
Cardine inventato dal fu Capitano Fowke (Genio militare) per far le veci delle molle da porta

88 TARVER, EDWARD, 10 Craig's-court, Charing-cross, London
 Ornamental plaster work (see Testing House)
Plâtrage d'ornement (voir le Bâtiment des Essais)
 Verziertes Pflasterwerk (siehe Probierhaus)
Lavoro di stucco a ornati (vedasi l'Edificio degli Esperimenti)

89 THE WELSH SLATE COMPANY, Port-madoc
 Roofing slates (see Testing House)
Ardoises pour couvertures (voir le Bâtiment des Essais)
 Dachschiefer (siehe Probierhaus)
Lavagne da tetti (vedasi l'Edificio degli Esperimenti)

90 WHITE AND BROTHERS, Millbank-street, Westminster
 Specimens of Keene's Cement for floors and walls (see Testing House)
Spécimens du ciment 'Keene' pour planchers et murs (voir le Bâtiment des Essais)
 Proben von Keene's Cement für Fussböden und Wände (siehe Probierhaus)
Saggi dei cementi 'Keene' per pavimenti e muri (vedasi l'Edificio degli Esperimenti)

91 WHITE & Co., Marylebone-street, London
 Papier maché wall decorations (see Testing House)
Décor d'appartement en papier mâché (voir le Bâtiment des Essais)
 Wandverzierungen in papier mâché (siehe Probierhaus)
Decorazioni murali in carta pesta

92 WILLOUGHBY DE ERESBY, RIGHT HON. LORD, Adamantine Tile Works, Little Bytham
 Plain adamantine clinkers (see Testing House)
Briques adamantines unies (voir le Bâtiment des Essais)
 Einfache sehr harte Ziegelsteine (siehe Probierhaus)
Pianelle semplici dette clinkers (risuonanti) adamantine (vedasi l'Edificio degli Esperimenti)

93 WINGATE, T., & Co., Whiteiuch, near Glasgow
 Working model of dredging machine
Modèle de drague fonctionnant
 Ein Arbeitsmodell einer Baggermaschine
Modello di curaporti in azione

94 *WOOLLESCROFT, GEORGE, Chesterton Tiles, Staffordshire
 Flooring tiles
Carreaux de dallage
 Pflasterziegel
Pianelle per pavimento

CLASS LXVI.

Navigation, Marine Engines, Life Boats, &c.

Matériel de la Navigation et du Sauvetage; Machines de Bâtimens à Vapeur.

Schiffahrt, Dampfmaschinen für Schiffe, Rettungsböte etc.

Nautica, Motori Navali, Barche di Salvagione, ecc.

(For detailed classification, see p. xxv.)

(*Voir le système de classification, p. xxv.*)

(Für detaillirte Classification, siehe Seite xxv.)

(*Vedasi il sistema di classificazione, p. xxv.*)

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Rev. J. Woolley, LL.D.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 ADMIRALTY, Whitehall, London (Appendix, pp. 261–8)

Marine engines, models of war vessels, and of systems of construction of iron-cased ships; apparatus, fittings, &c., used in the Navy
Machines de bâtimens à vapeur, modèles de vaisseaux, systèmes de constructions des vaisseaux blindés; aménagements spéciaux de la marine militaire

Dampfmaschinen für Schiffe, Modelle von Kriegsschiffen und von Constructionen für eisenplattirte Schiffe; Geräte, kurze Waaren etc. für die Flotte

Motori navali, modelli di vascelli da guerra, e di sistemi di costruzione di navi corazzate; apparati, fornimenti, ecc., usati nella marina

2 ATKINSON & Co., 3 Mervieu-place, Queens-town, Ireland

Models of boats, yachts, &c.

Modèles de bateaux, yachts, etc.

Modelle von Böten, Jachten etc.

Modelli di barche, balandre (yachts), ecc.

3 AYCKBOURN, F., 18 Southampton-street, Covent-garden, London

Folding boats—*Bateaux pouvant se plier*

Zusammenlegbare Böte—*Barche da piegarsi*

3A BARNETT, S. (see Class 50)

Diving apparatus—*Appareil à plongeur*

Tauchapparat—*Apparati di palombaro*

3B BASHFORTH, F. (see Class 12)

Chronograph—*Chronographe*

Chronograph—*Cronografo*

4 BENHAM & SONS, 19 Wigmore-street, London

Models of ships' cooking apparatus

Modèles de cuisine pour navires

Modelle von Schiffsküchen

Modelli di cucine navali

5 *BERTHON, REV. E. L., M.A., F.R.A.S., Vicarage, Romsey

Models of collapsing lifeboats, &c.

Modèles de bateaux de sauvetage pouvant se voir comme un soufflet, etc.

Modelle von zusammenlegbaren Rettungsböten

Modelli di battelli da salvamento capaci di piegarsi

6 *BIRT, J., JUN., 4 Dock-street, London-dock

Life belts, life buoys

Ceintures et bouées de sauvetage

Gürtel und Bojen zum Lebensretten

Cinture e boa da salvagione

6A BOARD OF TRADE, Whitehall, London

Rocket apparatus for saving life from shipwreck

Porte-amarre pour sauver la vie en cas de naufrage

Raketenapparat zum Retten von Menschenleben in Schiffbrüchen

Cavo da tasca pella salvagione della vita in caso di naufragio

7 BOLTON, CAPTAIN FRANK, 13 Bruton-street, Berkeley-square, London

Signal and telegraphic apparatus

Appareil télégraphique à signaux

Signal and Telegraphische Apparate

Apparati telegrafici e segnali

8 BURLEY, ROBERT, Great Wellington-street, Glasgow

Models of steamers

Modèles de navires à vapeur

Modelle von Dampfschiffen

Modelli di piroscafi

- 9 BURNLEY & Co., Millwall, London
Ships' tanks and cisterns
Caisnes à eau et réservoirs
Wasserbehälter und Cisternen für Schiffe
Cisternette e cisterne navali
- 10 THE CANOE CLUB, Capt. J. Macgregor, Esq.,
1 Mitre-buildings, London
Canoes—*Pirogues*—Kähne—*Piroghe*
- 10A CATOR, G. A., 20 London-street, Fenchurch-street, London
Skinner's patent vertical steering apparatus
Appareil de gouvernail vertical, brevet Skinner
Skinner's patentirter verticaler Steuerapparat
Apparato verticale per governare di Skinner (patentato)
- 11 CHANCE BROTHERS (see Classes 16 and 44)
Dioptric lighthouse apparatus
Appareils dioptriques pour phares
Dioptrische Leuchthurm-Apparate
Apparati diottrici per fari
- 12 CLARK, EDWIN, 24 Great George-street, Westminster, London
Model of hydraulic lift graving dock
Modèle de bassin de radoub avec machine hydraulique élévatoire
Modell eines Kalfat-Docks mit hydraulischem Hebeapparat
Modello di bacino da carenaggio con sollevatore idraulico
- 13 CLIFFORD, C., 3 East India-avenue, Leadenhall-street, London
System of unlashing, lowering, and disengaging boats, &c.
Système pour mettre à la mer les canots de côté, et décrocher les palans quand les canots sont amenés
System, Böte loszubinden, herabzulassen und freizumachen etc.
Sistema per slacciare, calare e liberare le lancia, ecc.
- 14 COLES, CAPTAIN COWPER
Drawings of turret ships
Dessins de vaisseaux à tourelles
Zeichnungen von Thurmschiffen
Disegni di navi torricelle
- 14A COLLING & PINKNEY, Sunderland
Model of patent reefing apparatus
Modèle d'un appareil breveté pour prendre des ris aux voiles
Modell eines patentirten Reffe-Apparates
Modello d'un apparato per agguantare (patentato)
- 15 COLOMB, COMMANDER P. H., R.N., 179 St. George-street, London
Patent flashing signals and warning lights for preventing collisions at sea
Signaux à éclats brevetés, et fanaux d'alarme pour prévenir l'abordage entre les bâtiments en mer
Patentirte momentare Lichtsignale und leuchtende Warnsignale um Collisionen zur See zu verhüten
Segnali lampeggianti, e lumi premonitori per impedire le collisioni in mare
- 16 *CUNNINGHAM, H. D. P., Bury-house, Gosport, Hants
Patent ships' braces
Bras de vergue brevetés
Patentirte Brassenhaspel und Brassen
Arganetto da bracci e bracci (patentati)
- 17 DAFT, T. B., Cleves Lodge, Church-street, Chelsea, London
Construction of iron ships and sheathing the same
Système de construction de bâtiments en fer avec doublage métallique
Construction von eisernen Schiffen und Platten für dieselben
Costruzione di navi in ferro, e doppiaggio delle medesime
- 18 DENNY BROTHERS, Dumbarton
Models of steam-ships, marine engines, and ships' steering gear
Modèles de bâtiments à vapeur, de machines et d'appareil de barre de gouvernail
Modelle von Dampfschiffen, Dampfmaschinen für Schiffe, und Schiffssteuer Apparate
Modelli di piroscafi, motori navali, e drizze del timone di nave
- 18A EAMES, W., Royal Dockyard, Chatham
Working model of a plan for connecting and disconnecting marine engines from their screws
Modèle fonctionnant pour démontrer un système pour établir et suspendre la communication entre les machines marines et leurs hélices
Arbeitendes Modell eines Planes für die Verbindung und Trennung von Schiffsdampfmaschinen von ihren Schrauben
Modello in attività per dimostrare un sistema di fare e disfare la comunicazione tra le macchine marine e loro elici
- 18B DUNN, T. (see Class 65)
Drawings of section of a marine boiler
Dessins de section d'une chaudière de bateau à vapeur
Zeichnungen des Durchschnitts eines Schiffsdampfkessels
Disegni della sezione d'una caldaia marina
- 19 EVELYN, LIEUT.-COL. G. P., 34 Onslow-gardens, London
Steering propeller for steam ships, &c.
Propulseur de navires à vapeur servant en même temps de gouvernail, etc.
Bewegungsmaschine für die Steuerruder der Dampfschiffe etc.
Propulsora guidatore per piroscafi, ecc.
- 20 GISBORNE, F. N., 445, West Strand, London
Electric and pneumatic signals, anti-fouling and anti-corrosive paint for ships
Signaux électriques et pneumatiques, enduit anticorrosif pour navires
Electrische und pneumatische Signale, Anstrichfarbe für Schiffe um das Beschmutzen und Zerfressen zu verhüten
Segnali elettrici e pneumatici, tinta per navi anti-adesiva, ed anti-corrosiva

- 20A GLOVER, REV. F., M.A.,** Vicarage, Brad-
ing, Isle of Wight
Small kedge anchors—*Petits ancres*
Kleine Wurfanker—*Ancorette*
- 21 GOURLAY BROTHERS & Co.,** Dundee
Models of iron steam and sailing vessels
Modèles de bâtiments en fer à vapeur et à voiles
Modelle von eisernen Dampf- und Segelschiffen
Modelli di navi in ferro a vapore e a vela.
- 22 HALSTED, REAR-ADMIRAL E. P.,** 74 Ebury-
street, London
Models, &c., for future turret navies
*Modèles, etc., pour vaisseaux à tourelles, la ma-
rine de l'avenir*
Modelle etc. für künftige Thurmschiffe
Modelli, ecc., per flotte future a torricelle
- 22A HARFIELD & Co.,** 2 Royal Exchange Build-
ings, London
Machines and iron work for shipping
Machines et pièces de grosse forge pour la marine
Maschinen und Eisenwerk für Schiffe
Macchine e lavori in ferro ad usi marini
- 23 HARVEY, J., & Co.,** Wivenhoe, Essex
Models of yachts—*Modèles de yachts*
Modelle von Yachten—*Modelli da balandre*
- 24 HAY, W. J.,** Lymington Lodge, Southsea
Water-proof glue and anti-fouling and pro-
tective varnish for ships' bottoms
*Colle-forte imperméable à l'eau, et enduit anti-
corrosif pour conserver le fond des bâtiments*
Wasserdichter Leim und Zerfressen ver-
hütender Firnis
Colla a prova d'acqua, e vernice anti-adesiva
- 25 *HERBERT, MRS. (widow of the late GEORGE
HERBERT),** 1 Cophall-buildings, London
Models of light-houses, buoys, beacons, &c.
Modèles de phares, bouées, balises, etc.
Modelle von Leuchthürmen, Wahrtonnen
(Bojen), Feuerwarten etc.
Modelli di fari, boa, e marche
- 26 HEWITT, WILLIAM,** Stephenson-house, Al-
bert-park, Bristol
Screw propeller, steering apparatus, naval
gun, breech-loading cannon, &c.
*Propulseur à hélice, appareil de barre de gouver-
nail, canon pour la marine, canon se chargeant
par la culasse, etc.*
Schraubenpropeller, Steuerapparate, Schiffs-
kanone, Kanone, die von hinten geladen wird,
etc.
*Propulsore à elice, apparato del timone, cannone
navale, cannone caricantesi dalla culatta, ecc.*
- 26A HOPCRAFT & Co.,** 20 London-street, Fen-
church-street, London
Skinner's patent vertical steering apparatus
Appareil de gouvernail vertical, brevet Skinner
Skinner's patentirter verticaler Steuer-Apparat
*Apparato verticale per governare di Skinner
(patentato)*
- 27 HUMPHRYS & TENNANT,** Deptford-pier,
London
Model of marine steam-engine
Modèle de machine à vapeur de navires
- Modell einer Seedampfmaschine
Modello di motore a vapore navale
- 29 HURST, CAPT. J. W.,** 33 Florence-road, New
Cross, Kent
Double pontoon life raft, &c.
Radeau de sauvetage à double ponton, etc.
Doppeltes Ponton-Rettungsfloss etc.
Doppio pontone, zattera di salvazione, ecc.
- 30 HUXHAMS & BROWN,** Commercial-road,
Exeter
Machines and iron work for shipping
Machines et pièces de grosse forge pour la marine
Maschinen und Eisenwaren für Schiffe
Macchine e lavori in ferro navali
- 31 INGLIS, A. & J.,** 64 Warrock-st., Glasgow
Models of steamers—*Modèles de vapeurs*
Modelle von Dampfschiffen—*Modelli di pi-
roscafi*
- 32 KAY & REID,** 50 Wellington-street, Glasgow
Model of carved figure head for ships
Modèle de pouline sculptée
Modell einer Schiffsfigur
Modello di testa di figura intagliata per nave
- 33 KINNEAR, F.,** 2 Mortimer-place, Mortimer-
road, De Beauvoir Town, London
Life and ship preserving apparatus
Appareil de sauvetage, porte-amarre
Lebens- und Schiffs-Rettungsapparat
Apparato di salvazione per persone e per nave
- 34 LAIRD BROTHERS,** Birkenhead
Models of war and merchant vessels
*Modèles de vaisseaux de guerre et de bâtiments
de commerce*
Modelle von Kriegs- und Handelsschiffen
Modelli di navi da guerra e mercantili
- 35 LILLEY, J., & SON,** 9 London-street, City,
London
Ships' binnacle and compass
Habitacle et boussole
Schiff's-Compasshäuschen und Compass.
Chiesola e bussola di nave
- 36 LLOYD'S REGISTER OF BRITISH AND FOREIGN
SHIPPING,** 2 White Lion-court, Cornhill,
London
Drawings of ships—*Dessins de navires*
Zeichnungen von Schiffen—*Disegni di navi*
- 37 LUMLEY, CAPT. HENRY,** 4 East India-avenue,
Leadenhall-street, London
Model of the Lumley rudder, as used in
Royal Navy and Merchant Service
*Modèle du gouvernail 'Lumley', en usage dans
la Marine Royale, et pour les bâtiments de
commerce*
Modell von Lumley's Steuerruder, im Ge-
brauch in den Kriegs- und Handelsschiffen
*Modello del timone di Lumley in uso nella
Marina Reale e nella mercantile*
- 38 *MACDONALD, J.,** 13 Henry-street, Vauxhall,
London
Ship's binnacle and compass
Habitacle et boussole
Compasshäuschen und Compass für Schiffe
Chiesola e bussola di nave

- 39 MARTIN, CLAUDE**, 22 Quay-side, Newcastle-on-Tyne
 Patent self-canting anchor
Ancre brevetée se renversant d'elle-même
 Patentirter von sich selbst umkehrender Anker
Ancora patentata svoltantesi sè stessa
- 40 *MAUDSLAY, SONS, & FIELD**, Westminster-bridge-road, London
 Models of marine steam engines
Modèles de machines à vapeur de navires
 Modelle von Schiffs-Dampfmaschinen
Modelli di motori a vapore navali
- 41 MAY, E. R.**, Swiss Villa, Sidmouth, Devon
 Apparatus for lowering ships' boats
Appareil à amener les canots de côté
 Apparat zum Herablassen der Böte von Schiffen
Apparato per calare le lance
- 42 MITCHELL, C., & Co.**, Newcastle-on-Tyne
 Models of war and merchant vessels, yachts
Modèles de vaisseaux de guerre, de bâtiments de commerce, de yachts.
 Modelle von Kriegs- und Handelsschiffen, Jachten
Modelli di navi da guerra e mercantili, balandre
- 43 MULLEY, W. R.**, 10 Lockyer-street, Plymouth
 Metal sheathing iron ships
Doublage métallique de bâtiments en fer
 Metallene Bleche für eiserne Schiffe
Dobblaggio metallico per navi in ferro
- 44 *MURRAY, DUNCAN**, 30 Moorgate-street, London
 Models of pleasure-boats
Modèles de canots de plaisance
 Modell eines Lustbootes
Modelli di barche da diporto
- 45 NAPIER, R., & SONS**, Lancefield House, Glasgow
 Models of war and merchant vessels, steering gear, &c.
Modèles de vaisseaux de guerre, de bâtiments de commerce, drosses de gouvernail, etc.
 Modelle von Kriegs- und Handelsschiffen, Steuerungsgeräte etc.
Modelli di navi da guerra e mercantili drizze del timone
- 46 NOLAN, PETER**, 51 Newman-street, Oxford-street, London
 Propeller for steamboats in shallow water
Propulseur pour bateaux à vapeur dans les eaux peu profondes
 Propeller für Dampfschiffe in seichtem Wasser
Propulsore per piroscafi in acque basse
- 47 NUNN, WILLIAM**, 179 St. George-street, London, E.
 Patent ship and boat lamps, binnacles, and warning night signal lamps, and foghorns
Fanaux et lanternes brevetés, habitacles, et feux pour signaux de nuit, cors de brume
- Patentirte Schiffs- und Bootlampen, Compasshäuschen und warnende Nachtsignallampen, Nebelhorne
Lanterne pateniate per navi e barche, chiesole, e lanterne per segnali premonitori di notte, e portavoce da nebbia
- 48 OSWALD & Co.**, Pallion Iron Ship Building-yard, Sunderland (Appendix, p. 282)
 Models of steamers, &c.
Modèles de vapeurs, etc.
 Modelle von Dampfschiffen etc.
Modelli di piroscafi, ecc.
- 49 PALMER'S SHIP BUILDING & IRON COMPANY (Limited)**, Newcastle-on-Tyne
 Models of steamers
Modèles de vapeurs
 Modelle von Dampfschiffen
Modelli di piroscafi, ecc.
- 49A PAUL, MATTHEW, & Co.** (see Class 53)
- 50 PENN, J. & SON**, Greenwich
 Marine engines
Machines à vapeur pour la marine
 Dampfmaschinen für die Marine
Motori a vapore navali
- 50A RANDOLPH, ELDER, & Co.** (see Class 65)
 Models of ships for the British Pacific Steam Company
Modèles de bâtiments pour la 'British Pacific Steam Company'
 Modelle von Schiffen der 'British Pacific Steam Company'
Modelli di navi pella 'British Pacific Steam Company'
- 51 RAVENHILL, HODGSON, & Co.**, Glass-house-fields, Ratcliff, and Orchard Wharf, Black-wall, London (Appendix, p. 228)
 Marine steam engines
Machines à vapeur de navires
 Schiffs-Dampfmaschinen
Motori a vapore navali
- 52 REGISTRAR-GENERAL OF SEAMEN**, Adelaide-place, London Bridge, London
 Models showing the mode of using the flags of the International Commercial Code of Signals
Modèles pour démontrer la manière de se servir des pavillons du Code Commercial International des signaux
 Modelle, die internationale commerciale Signalweise zeigend
Modelli per dimostrare l'uso delle bandiere del Codice Commerciale Internazionale dei segnali
- 53 RENNIE, J. & G.**, 6 Holland-street, Blackfriars-road, London (Appendix, p. 288)
 Marine steam engines and models of ships and floating docks
Machines à vapeur de navires, et modèles de bâtiments et de docks flottants
 Schiffs-Dampfmaschinen und Modelle von Schiffen und schwimmenden Docks
Motori a vapore navali e modelli di navi, e di bacini galleggianti

54 RICHARDSON, DUCK, & Co., Stockton-on-Tees

Models of ships, &c.

Modèles de bâtimens, etc.

Modelle von Schiffen etc.

Modelli di navi, ecc.

55 RITCHIE, J. H., JUN., 106 Leadenhall-street, London

Models of ships and steamers; bolts for composite ships

Modèles de navires à voiles et à vapeur, boudons pour bâtimens de construction mixte en bois et en fer

Modelle von Schiffen und Dampfschiffen, Riegel für zusammengesetzte Schiffe

Modelli di navi e piroscafi; chiodi per navi composite

56 *RITHERDON, E., 109 Fenchurch-street, London

Models illustrating method of sheathing iron ships

Nouvelle méthode de doublage en cuivre

Modelle zur Erklärung des Verfahrens, eiserne Schiffe zu verblechen

Modelli illustrativi del metodo di doblaggio per navi in ferro

57 ROYAL NATIONAL LIFEBOAT INSTITUTION, 14 John-street, Adelphi, London (Appendix, pp. 283-4)

Lifeboat and carriage; models and drawings of the same and appliances for saving life from shipwreck

Bateau de sauvetage, dit 'lifeboat,' avec son chariot; dessins et modèles de 'lifeboat,' et appareils de sauvetage en cas de naufrage

Rettungsboot und Wagen; Modelle und Zeichnungen desselben und Vorkehrungen zum Retten von Menschenleben in Schiffbrüchen

Lancia di salvagione e suo carriaggio; modelli e disegni della medesima, e cose attinenti alla salvagione della vita in caso di naufragio

58 SAMUDA BROTHERS, Poplar, London

Models of ships of war, yachts, &c.

Modèles de vaisseaux de guerre, yachts, etc.

Modelle von Kriegsschiffen, Jachten etc.

Modelli di navi da guerra, balandre, ecc.

59 SEARLE & SONS, Stangate, Lambeth, London

Boats and models of boats

Canots et modèles d'embarcations

Böte und Modelle von Böten

Barche e modelli di barche

60 SHEDDEN, H., 10 Wapping-street, Liverpool

Ships' flags

Pavillons

Schiffsfahnen

Bandiere navali

61 SIMONS, W. & Co., London Works, Renfrew, Glasgow

Models of steam engines and steamers

Modèles de machines et de bâtimens à vapeur

Modelle von Dampfmaschinen und Dampfschiffen

Modelli di motori navali e piroscafi

62 TAYLOR, J., & SONS, Britannia Works, Birkenhead (see Class 52)

Steam winch, with deck pumps

Manivelle à vapeur pour faire fonctionner les pompes de tillac

Dampfhaspel mit Deckpumpen

Argani a vapore, con pompe in coverta

63 THAMES IRON WORKS SHIP BUILDING, ENGINEERING, AND DRY DOCK COMPANY (Limited), Blackwall, London

Models of ironclad frigates and steam ships

Modèles de frégates cuirassées, et de bâtimens à vapeur

Modelle von Panzer-Fregatten und Dampfschiffen

Modelli di fregate e piroscafi corazzati

64 TRINITY HOUSE CORPORATION, Tower-hill, London (Appendix, pp. 285-8)

Electric and other lighthouse apparatus, fog signals, models of vessels, buoys, beacons, &c.

Appareils d'éclairage électrique de phares et autres, signaux de brume, modèles de navires, bouées, balises, etc.

Electrische und andere Leuchthurm-Apparate; Nebel-Signale, Modelle von Fahrzeugen, Bojen, Leuchtfener etc.

Apparati elettrici ed altri per far i segnali da nebbia, modelli di bastimenti, boa da salvagione, lanterne, ecc.

65 TUCKER, J. SCOTT, London (see Class 37)

Models of fastenings for balance rudder

Modèle d'un système de monter le gouvernail

Modelle der Befestigung von Balancier-Steuerrudern

Modelli illustrativi del modo di fissare il timone a bilancia

66 *WALKER, W. H., 9 Rumford Place, Liverpool

Model of hydraulic slip-lift

Modèle de cale hydraulique

Modell eines hydraulischen Hebeapparats

Modello di sollevatore idraulico

68 WARD, CAPTAIN J. R., R.N., 14 John-street, Adelphi, London (see Lifeboat exhibited by the Royal National Lifeboat Institution)

Life belts, life buoys

Ceintures et bouées de sauvetage

Schwimmgürtel, Rettungsbojen

Cinture e boa di salvagione

69 *WEST, J. G., & Co., 92 Fleet-street, London

Ship's compass and binnacles

Boussole et habitacles

Schiffscompass und Compasshäuschen

Bussola e chiesola di nave

70 WHETTEM, W. H., Royal Dock-yard, Portsmouth

Buoys fitted with bells

Bouées à cloches

Bojen mit Schellen

Boa muniti di campana

71 WHITE, J. S., East Cowes

Models of yachts and steam life boat

Modèles de yachts et de bateau de sauvetage à vapeur

Modelle von Jachten und Dampfrettungsböten

Modelli di balandre e lance di salvagione a vapore

73 WIGRAM, MONEY, & SONS, Blackwall-yard, London

Improved screw steering gear; Notman's port hinge

Drosse de gouvernail perfectionnée; gond de sabord Notman

Verbesserte Schrauben-Steuerapparat; Notman's Angel für Stückpforten

Drizze di timone a elice perfezionate, cardine di portelli perfezionati di Notman

75 WISHART, THOMAS, Port Glasgow

Models of ships—*Modèles de bâtiments**Schiffsmodelle—Modelli di navi*

76 *WRIGHT, J. W., 68 London-road, Southwark, London

New paddle-wheel

Roue à aubes, nouveau système

Neue Dampfschiffräder

Nuova ruota a pale

77 *YOUNG, LAMBERTON, Royal Humane Society, 4 Trafalgar Square, London

Models of apparatus for saving life in sea accidents

Modèles d'appareils de sauvetage en cas de naufrage, etc.

Modelle von Apparaten zur Lebensrettung in Unglücksfällen auf der See

Modelli di apparati per salvare la vita in pericoli di mare

CLASS LXVI. a.

Special Class for War Material.

Classe Spéciale pour le Matériel de l'Art Militaire.

Specielle Klasse für Kriegsmaterial.

*Materiale da Guerra.*COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.H.R.H. The Duke of Edinburgh, K.G., *Chairman*

Lord Elcho, M.P.

Colonel E. M. Boxer, R.A.

James Buchanan, Esq.

Colonel Dixon, R.A.

Major-General Hay

John Latham, Esq.

Brigadier-General Lefroy, R.A.

Westley Richards, Esq.

William Scholefield, Esq., M.P.

H. Hussey Vivian, Esq., M.P.

Captain T. P. Warlow, R.A.

Colonel Younghusband, R.A.

Captain Donnelly, R.E. *Secretary.*

SUB-COMMITTEE,

*Appointed by the Secretary for War.*Capt. Douglas Galton, C.B., Assistant Under-Secretary of State, *Chairman*

Sir J. B. Gibson, M.D., K.C.B., Director-General of the Army Medical Department

Rear-Admiral Caffin, C.B., Director of Stores

Major-General St. George, R.A., C.B., Director of Ordnance.

Lieut.-Col. William F. D. Jervois, C.B., R.E., Deputy-Director of Works (for Fortifications).

Capt. E. Belfield, R.E., Deputy-Director of Works (for Barracks).

Capt. B. H. Martindale, R.E., Superintendent of the Barrack Department.

J. Scott Robertson, Esq., Purveyor in Chief.

Geo. D. Ramsay, Esq., Director of Clothing.

William Seed, Esq. *Secretary.*JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 ADMIRALTY, Whitehall, London (Appendix pp. 261–81)

Navy munitions of war

Matériel des vaisseaux de guerre

Kriegsvorräthe für die Flotte

Munizioni navali da guerra

2 ARMSTRONG, SIR W. G., & Co., Newcastle-on-Tyne (Appendix, pp. 294–5)

Naval gun, field gun, gun carriages, &c.

Canon pour la marine, pièce de montagne, affûts de canon

Schiffskanone, Feldkanone, Lafetten etc.

Cannone navale, cannoni da campagna, affusti, ecc.

3 BAKER, W. L., 8 Danes-inn, Strand, London

Target diagrams

Diagrammes de cible

Diagramme von Schiessscheiben

Diagrammi di bersaglio

4 *BURLEY, ROBERT, Great Wellington-street, Glasgow

Rifling shot and shell

Boulets et bombes pour canons rayés

Gezogene Kugeln und Bomben

Palle e bombe per canne rigate

5 BROWN, JOHN, & Co. (Limited), Atlas Steel and Iron Works, Sheffield

Armour plates, forgings

Plaques de blindage, grosses pièces de forge

Schiffsanzen-Platten und Schmiedearbeit

Lastroni per corazzature, lavori di fucina

6 CAIL, RICHARD, Sheriff of Newcastle-on-Tyne

Cail's rifled projectiles

Projectiles rayés, dits 'Cail'

Cail's gezogene Geschosse

Proiettili rigati di Cail

7 *CAMMELL & Co., Sheffield

Armour plates

Plaques de blindage

Schiffsanzenplatten

Lastroni per corazzature

- 8 CHALMERS, J., 2 Bickerton-terrace, Haverstock-hill, London
Naval armour—*Plaques de blindage*
Schiffsanzerpelplatten—*Corazzature navali*
- 9 CLARKSON, THOMAS CHARLES, 56 Stamford-street, Blackfriars-road, London
Various articles used in the army and navy
Objets divers à l'usage de l'armée et de la marine
Verschiedene Gegenstände für den Gebrauch der Land- und Seemacht
Vari oggetti d'uso dell' armata e della marina
- 10 JAMES, H. BENSON, 15 Fish-street-hill, London
Patent method of attaching copper or other sheathing to iron vessels
Méthode brevetée d'attacher le doublage en cuivre, etc., aux bâtiments en fer
Patentirtes Verfahren, eiserne Schiff zu verkupfern oder auf andere Weise zu verblechen
Metodo patentato per fissare il dobblaggio di rame o d'altro alle navi in ferro
- 11 JONES, JOHN, Royal Engineering Establishment, Chatham
Iron band gabions for siege works and suspension bridges
Gabions faits de bandes de fer pour les travaux de siège et ponts suspendus
Sehankkörbe aus eisernen Bändern für Belagerungswerke; Hängebrücken
Gabbioni in banda di ferro per opere d'assedio e ponti sospesi
- 12 MACLEOD OF MACLEOD, Colonel 1st Middlesex Engineer Volunteers, South Kensington Museum, London
Pontons invented by Captain Fowke, R.E.
Pontons inventés par le Capitaine Fowke, du Génie Royal
Pontons, erfunden von dem Ingenieur-Capitain Fowke
Pontoni inventati dal Capitano Fowke genio militare
- 13 *MACCALLUM, D., 1 Octagon, Plymouth
Distance indicator for rifle practice
Indicateur de distances pour l'exercice du tir à la carabine de précision
Entfernungsanzeiger zur Uebung im Scharfschiessen
Indicatore di distanze per la pratica della carabina rigata
- 14 *MACKENZIE, CAPTAIN JAMES D., Mountgerald, Dingwall, Ross-shire
Volunteer knapsack
Sac pour les Volontaires
Tornister für Freiwillige
Zaino per Volontario
- 14A MALLET, ROBERT, 7 Westminster Chambers, Victoria-street, London
Bomb shells weighing $1\frac{1}{2}$ ton
Obus d'un poids de $1\frac{1}{2}$ tonne
Bombenkugeln von $1\frac{1}{2}$ Tonne Gewicht
Bombe del peso de $1\frac{1}{2}$ tonnellata
- 15 PALLISER, MAJOR W., Army and Navy Club, Pall Mall, London
Muzzle loading rifled gun
Canon rayé se chargeant par la bouche
Gezogene Kanone, die von der Mündung geladen wird
Carabina rigata caricantesi dalla culatta
- 16 PRENTICE & Co., Stowmarket, Suffolk
Gun cotton, for blasting and for small arms
Coton-poudre pour mines, et armes à feu, etc.
Schuessbaumwolle zum Sprengen und für Flinten etc.
Cotone fulminante per minare, e per armi da fuoco
- 17 REDFORD, G., M.R.C.S., London
Model of armour plating for ships
Modèle de plaques de blindage pour vaisseaux de guerre
Modell von Panzerplatten für Schiffe
Modello di corazzatura navale
- 19 HER MAJESTY'S SECRETARY OF STATE FOR WAR, London (App. pp. 289-92)
Heavy ordnance, field guns, small arms, camp equipage, &c.
Artillerie de gros calibre, pièces de montagne, armes à feu, objets de campement, etc.
Belagerungs- und Feldgeschütze, Flinten, Lagerausrüstung etc.
Grossa artiglieria, cannoni da campagna, piccole armi, equipaggio da campo, ecc.
Specimens of iron plates and models of iron protected works
Spécimens de plaques de blindage et modèles de fortifications blindées
Proben von Eisenplatten und Modelle von eisernen Schutzwerken
Campioni di lastroni da corazzatura e modelli di opere corazzate
- Saddlery, harness, clothing, and accoutrements
Selles et objets de harnachement, d'habillement et d'équipement militaire
Sattlerwaaren, Pferdegeschirre, Kleidung und Ausrüstung
Sellerie, bardature, abbigliamenti, equipaggiamenti militari
- Specimens of barracks, stable, and hospital, with fittings
Modèles de casernes, d'écurie, et d'hôpital militaires, avec leurs accessoires
Muster von Casernen, Ställen und Lazarethen, mit Zubehör
Esemplari di caserane, stalle, ed ospedali con attrazzi
- 20 WHITE, TIMOTHY, Portsmouth
Rifled projectile—*Projectile rayé*
Gezogene Geschosse—*Proiettili rigati*
- 21 WHITWORTH COMPANY (Limited), Manchester (Appendix, p. 293)
Rifled ordnance and small arms
Canons et carabines rayés
Gezogene Kanonen und Flinten
Cannoni rigati e piccole armi

GROUP VII.

Food (Fresh or Preserved) in various states of Preparation.

Aliments (Frais ou Conservés) à divers degrés de Préparation.

Nahrungsmittel (roh oder conservirt), auf verschiedene Art zubereitet.

Alimenti (freschi e conservati) in varie Stadi di Preparazione.

CLASS LXVII.

Cereals and other Eatable Farinaceous Products, and the Products derived from them.

Céréales et autres Produits Farineux Comestibles, avec leurs Dérivés.

Getreide und andere essbare Mehlproducte und Producte, die daraus gemacht werden.

Cereali ed altri Prodotti Farinacei Comestibili, e i Prodotti che ne derivano.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. H. A. Bruce, M.P.

Sir Samuel Morton Peto, Bart. M.P.

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George T. Clark, Esq.

Thomas Fairbairn, Esq.

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Henry Thring, Esq.

Charles Woollton, Esq.

W. Matchwick, Esq. Secretary.

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

J. Druce, Esq.

ASSOCIATE—ASSOCIÉ
HULFSPREISRICHTER—ASSOCIATO.

C. Woollton, Esq.

1 BAKERS, WHITE, & MORGAN, Hibernia-chambers, London-bridge, London

Hops

Houblon

Hopfen

Luppoli

2 BERGER, SAMUEL, & Co., Bromley-by-Bow, London

Rice starch—*Amidon de riz*

Reisstärke—*Amido di riso*

3 BARRY DU BARRY & Co., 77 Regent-street, London

Revalenta Arabica health restoring food

Revalescière Du Barry, farine de santé

Die Gesundheit herstellende Nahrung, Revalenta Arabica genannt

Revalenta Arabica, farina di salute

4 CHAMBERLIN, JAMES, Post-office-street, Norwich (Appendix, p. 296)

Spanish meal

Farine de blé d'Espagne

Spanisches Mehl

Farina di Spagna

4A COLMAN, J. & J. (see Class 44)

Rice starch, &c.

Amidon de riz

Reisstärke

Amido di riso

5 HALLETT, F. F., The Manor House, Brighton

Pedigree wheat—*Blé*

Weizen—*Grani*

5A JONES, ORLANDO & Co. (see Class 44)

Starch—*Amidon*—Stärke—*Amido*

5B JAMAICA COTTON Co., 81 Fleet-street, London

Arrowroot—*Arrowroot*

Arrowroot—*Arrorut*

6 KITCHIN, JOSEPH, Westerham, Kent

A pocket of golding hops

Sac de houblon golding

Ein Sack Hopfen

Sacco di luppoli golding

7 RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, & Co. (Limited), Basingstoke

Cereals, grasses, seeds

Céréales, herbes, graines

Getreide, Gräser, Samen

Cereali, erbe, semi

7A RECKITT, ISAAC & SON (see Class 44)

Starch—*Amidon*—Stärke—*Amido*

8 SCIENCE AND ART DEPARTMENT, South Kensington, London (Appendix, p. 297)
Illustrations of the Food Division of the South Kensington Museum

Spécimens des produits de la Division des Aliments dans le Musée de South Kensington

Proben aus der Nahrungsabtheilung vom Museum in South Kensington

Saggi della Divisione degli Alimenti del Museo South Kensington

9 WELLSMAN, JOHN, Moulton, Newmarket

Barley and oats

Orge et avoine

Gerste und Hafer

Orzo e avena

10 WOOLLOTON & SON, 246 High-st., Borough, London

Hops

Houblon

Hopfen

Luppoli

CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie et de la Pâtisserie.

Brot und Backwerk.

Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification*, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione*, p. xxvi.)

COMMITTEE—COMITÉ
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Thomas Baring, Esq. M.P.

Henry Bishop, Esq.

George T. Clark, Esq.

Thomas Fairbairn, Esq.

Charles Forster, Esq. M.P.

John Fowler, Esq. P.I.C.E.

George H. Frean, Esq.

Dr. A. H. Hassall, F.L.S.

Professor T. H. Huxley

Charles Lawson, Esq.

Philip W. S. Miles, Esq.

George Palmer, Esq.

Henry Thring, Esq.

W. Matchwick, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

1A ADMIRALTY, Whitehall, London (App. p. 261)

Food used in the Royal Navy

Aliments consommés dans la marine royale

Nahrung, in der königlichen Marine gebraucht

Alimento consumato nella marina reale.

1 BAKER, SIMPSON, & Co., Cork, and Bishops-gate-street, London

Biscuits

Biscuits

Zwieback

Biscotti

2 HUNTLEY & PALMERS, Reading

Plain and fancy biscuits

Biscuits divers

Zwieback verschiedener Arten

Biscotti semplici e di lusso

3 PEEK, FREAN, & Co., London, S.E.

Fancy and navy biscuits

Biscuits pour la marine, etc.

Zwieback zum Hausgebrauch und für Schiffe

Biscotti di lusso e per marina

CLASS LXIX.

Fatty Substances used as Food; Milk and Eggs.

Corps Gras Alimentaires; Laitages et Œufs.

Fette, die zur Nahrung gebraucht werden; Milch und Eier.

Sostanze grasse usate per Cibo; Latte e Uova.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification*, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione*, p. xxvi.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. H. A. Bruce, M.P.

Sir Samuel Morton Peto, Bart. M.P.

Thomas Baring, Esq. M.P.

George T. Clark, Esq.

Thomas Fairbairn, Esq.

Charles Forster, Esq. M.P.

John Fowler, Esq. P.I.C.E.

Professor T. H. Huxley

Charles Lawson, Esq.

Philip W. S. Miles, Esq.

Professor R. Owen

Henry Thring, Esq.

Professor A. Voelcker

W. Matchwick, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

CLASS LXX.

Meat and Fish—*Viandes et Poissons.*
Fleisch und Fische—*Carne e Pesce.*

(For detailed classification, see p. xxvi.)

(*Voir le système de classification, p. xxvi.*)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione, p. xxvi.*)

COMMITTEE—COMITÉ
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Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.

Right Hon. H. A. Bruce, M.P.

Sir Samuel Morton Peto, Bart. M.P.

George Batty, Esq.

Thomas Baring, Esq. M.P.

Frank T. Buckland, Esq. F.Z.S.

George T. Clark, Esq.

Harris Crimp, Esq.

Thomas Fairbairn, Esq.

Charles Forster, Esq. M.P.

John Fowler, Esq. P.I.C.E.

Charles Lawson, Esq.

Henry Letheby, Esq. M.D.

Philip W. S. Miles, Esq.

Richard Quain, Esq. M.D.

Henry Thring, Esq.

W. Matchwick, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 DUFAYVILLE, SANSOM, & Co., Broughton-house, Islington, London

Gelatine, isinglass, and beef-tea

Gélatine, colle de poisson, bouillon-bœuf

Gelatin, Hausenblase, Bouillontafeln

Gelatina, colla di pesce, brodo di manzo

2 *DUNCAN & Co., Southwiche, Sussex

Meats, soups, poultry, game, &c.

Viandes, soupes, volaille, gibier, etc.

Fleisch, Suppen, Geflügel, Wildpret etc.

Carni, zuppe, pollaine, cadiagione, ecc.

3 *GLASS, GEORGE MICHAEL, Brandon-street, Walworth, London

Isinglass, gelatine, &c.

Gélatine, colle de poisson, etc.

Hausenblase, Gelatin etc.

Colla di pesce, gelatina, ecc.

4 GREEN, JOHN, 7 Sherborne-street, Islington, London

Sheet gelatine

Gélatine en feuilles

Blättergelatin

Gelatina in foglia

5 HART, JOHN WALTER, 60 St. Mary Axe, London

Isinglass

Colle de poisson

Hausenblase

Colla di pesce

6 MORTON, JOHN THOMAS, 107, 108, & 109 Leadenhall-street, London

Preserved meat, fish, vegetables, and fruits

Conserves de viandes, de poissons et de légumes

Conservirtes Fleisch, Fisch, Gemüse und Früchte

Carne, pesce, vegetabili, e frutti conservati

7 *THE PRESERVED PROVISION COMPANY, Oriel-chambers, Liverpool

Preserved articles of food

Conserves alimentaires

Conservirte Nahrungsmittel

Sostanze alimentari conservate

8 REDWOOD'S PATENTS COMPANY (Limited), Summerfield Works, Homerton, N.E.

Animal substances preserved in paraffin

Substances alimentaires conservées dans la paraffine

Thierische Substanzen, in Paraffin conservirt

Sostanze animali conservate in paraffina

9 WARRINER, GEORGE, Little Ilford, Essex

Preparations of food

Préparations alimentaires

Preparirte Nahrung

Preparazioni alimentari

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruits.

Gemüse und Früchte.

Vegetabili e Frutti.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification, p. xxvi.*)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione, p. xxvi.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. H. A. Bruce, M.P.

Sir Samuel Morton Peto, Bart. M.P.

Thomas Baring, Esq. M.P.

Thomas F. Blackwell, Esq.

George T. Clark, Esq.

Thomas Fairbairn, Esq.

Charles Forster, Esq. M.P.

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Dr. J. D. Hooker

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Charles Lawson, Esq.

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Henry Thring, Esq.

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JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

1 MAKEPEACE, SAMUEL, Merton, Surrey

Preserved herbs, vegetables, and sauces

Conserves d'épices, de légumes; sauces

Conservirte Kräuter, Gemüse und Saucen

Erbe, vegetabili, e salse conservate

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Zuckerwerk.

Condimenti e Stimolanti; Zucchero e Confettura.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

COMMITTEE—COMITÉ
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Right Hon. H. A. Bruce, M.P.

Sir Samuel Morton Peto, Bart. M.P.

Professor T. C. Archer

Thomas Baring, Esq. M.P.

H. Bishop, Esq.

George T. Clark, Esq.

James Clay, Esq. M.P.

John Corbett, Esq.

Robert W. Crawford, Esq. M.P.

Thomas Fairbairn, Esq.

Charles Forster, Esq. M.P.

John Fowler, Esq. P.I.C.E.

Richard Fry, Esq.

Francis Hicks, Esq.

Thomas B. Horsfall, Esq. M.P.

Charles Lawson, Esq.

Philip W. S. Miles, Esq.

George Moffatt, Esq. M.P.

Norbury Pott, Esq.

Henry Thring, Esq.

Captain E. R. Festing, R.E. Secretary.

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

George Moffatt, Esq., M.P.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

Eric Baker, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 BALL, JOSEPH B., & Co., Littleworth, near Newport, Shropshire

E. D. Moore's patent concentrated milk and chocolate, and cocoa combined

Lait concentré combiné avec le chocolat et le cacao (brevet de E. D. Moore)

E. D. Moore's patentirte concentrirte Milch, mit Chocolate und Cacao gemischt

Latte concentrato, e cioccolata, e cacao combinati patente di E. D. Moore

3 BATTY & Co., 15 Pavement, Finsbury, London

Pickles, sauces, jams, jellies, fruits, &c.

Légumes confits dans le vinaigre, sauces, confitures, gelées, fruits, etc.

Eingemachtes, Saucen, Marmeladen, Gelée, Früchte etc.

Frutti in aceto, salse, conserve, gelatine, frutti, ecc

4 BURGESS, JOHN, & SON, 107 Strand, London (Appendix, p. 298)

Anchovies, sauces, pickles, preserved fruits, &c. *Anchois, sauces, légumes confits dans le vinaigre, fruits confits, etc.*

Sardellen, Saucen, Eingemachtes, conservirte Früchte etc.

Acciughe, salse, frutti in aceto, frutti in conserva, ecc.

5 *COLLIER, JAMES, & SON, Commercial-street, Shoreditch, London

Cocoas, chocolates, mustard

Cacao, chocolats, moutarde

Cacao, Chocolate, Senf

Cacao, cioccolata, mostarda

6 COLMAN, J. & J., 108 Cannon-street, London Mustard

Moutarde

Senf

Mostarda

7 CORBETT, JOHN, Stoke Prior Salt Works, near Bromsgrove (Appendix, p. 297)

Manufactured salt

Sel de table

Gereinigt Salz

Sale raffinato

8 CROSSE & BLACKWELL, Soho-square, London Pickles, sauces, jams, preserved provisions, &c.

Légumes confits dans le vinaigre, sauces, confitures, conserves alimentaires, etc.

Eingemachtes, Saucen, Marmeladen, conservirte Nahrungsmittel etc.

Frutti in aceto, salse, conserve, alimenti conservati, ecc.

9 FRY, J. S., & SONS, 12 Union-street, Bristol (Appendix, p. 299)

Chocolate and cocoa, with illustrative specimens *Chocolat et cacao, et spécimens de leur fabrication*

Chocolate und Cacao, mit erklärenden Proben *Cioccolata e cacao, con saggi illustrativi*

10 GATTI BROTHERS, 13 Aldgate, London

Chocolate, cocoa

Chocolat, cacao

Chocolate, Cacao

Cioccolata, cacao

11 KEEN, ROBINSON, BELLVILLE, & Co., Garlic-hill, Cannon-street, London

Genuine mustard and the process of manufacture

Moutarde et procédé de fabrication

Unverfälschter Senf und Fabricationsprocess

Mostarda pura e processo di manifattura

12 MACKAY, JOHN, 119 George-street, Edinburgh

Articles of diet, and spice and fruit essences *Conserves alimentaires, et essences d'épices et de fruits*

Nahrungsmittel, Gewürz- und Fruchtesenzen *Sostanze dietetiche, ed essenze di spezie e frutti*

13 *MARSHALL, THOMAS WATSON, 2 Richmond-terrace, Grosvenor-street, Camberwell, Surrey
Crystallised liqueurs and creams
Liqueurs et darioles cristallisées
Crystallisirte Liqueure und Rahm
Liquori e siropi cristallizzati

14 McCRAW, E. C., & Co., Royal Salt Works, Winsford, Cheshire
Salt
Sel
Salz
Sale

15 PATCHITT, EDWIN CHESHIRE, Ilkeston-road, Radford, Nottingham
Sauce
Sauce
Sauce
Salsa

16 ROBB, A., & Co., 79 St. Martin's-lane, London
Confectionery
Confiserie
Zuckerwerk
Confetture

17 THE SALT CHAMBER OF COMMERCE, Northwich
Salt models and samples
Modèles et échantillons de sel
Modelle und Proben von Salz
Modelli e campioni di sale

18 SCHOOLING & Co., North Side, Bethnal-green, London
Confectionery
Confiserie
Zuckerbäckerwaaren
Confetture

20 *STANGE, JOSEPH, 37 Seymour-street, Euston square, London
Confectionery
Confiserie
Zuckerbäckerwaaren
Confetture

21 WHARRY, JAMES, Market-place, Chippenham
Jockey club sauce and other condiments
Sauce dite 'jockey club,' et autres condiments
'Jockey-Club'-Sauce und andere Gewürze
Salsa detta 'jockey club,' e altri condimenti

CLASS LXXIII.

Fermented Drinks.
Boissons Fermentées.
Geistige Getränke.
Bevande Fermentate.

(For detailed classification, see p. xxvi.)
(*Voir le système de classification, p. xxvi.*)
(Für detaillirte Classification, siehe Seite xxvi.)
(*Vedasi il sistema di classificazione, p. xxvi.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.
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Frederick Hodges, Esq.
Edward H. Kinahan, Esq.
Charles Lawson, Esq.
Graham Menzies, Esq.
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F. F. Quin, Esq. M.D.
Henry Thring, Esq.
Captain E. R. Festing, R.E. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Hon. H. A. Howard.

ASSOCIATE—ASSOCIÉ
HÜLFSPREISRICHTER—ASSOCIATO.

E. L. Beckwith, Esq.

1 AITCHISON, JOHN, & Co., South Back of Canongate, Edinburgh
Strong and pale ale in bottle
Bières fortes et pale ale en bouteilles
Starkes und Weissbier in Flaschen
Ale generoso e pallido in bottiglia

2 ALLSOPP, S., & SONS, Burton-on-Trent (Appendix, p. 301)
Ales
Ales
Weissbiere
Ale

3 BAGOTS, HUTTON, & Co., 28 William-street, Dublin
Irish whisky
Whisky d'Irlande
Irländischer Whisky (Branntwein)
Whisky Irlandese

4 BALLINGALL & SON, Pleasance Brewery, Dundee
Scotch bitter beer
Bière amère écossaise
Schottisches Bitterbier.
Birra amara scozzese

- 5 THE BANBURY BREWERY COMPANY, Banbury
 Beer and porter
Bière et porter
 Bier und Porter
Birra e porter
- 6 BASS & Co., Burton-on-Trent
 Ales
Ales
 Weissbiere
Ale
- 8 BURTON BREWERY COMPANY (Limited),
 Burton-on-Trent, and 50 Rue Basse des
 Remparts, Paris (Appendix, p. 300)
 Ales, stout, &c.
Ales, stout, etc.
 Weissbiere, Stout etc.
Ale, stout, ecc.
- 9 DEVENISH, J. A., & Co., Weymouth
 Export pale ale
Pale ale pour l'exportation
 Weissbier für die Ausfuhr
Ale pallido da esportazione
- 10 DUNVILLE & Co., 10 Calendar-street, Belfast
 Old Irish whisky in wood and bottle
Whisky irlandais vieux en tonne et en bouteilles
 Alter Irländischer Whisky in Fässern und
 Flaschen
Whisky Irlandese vecchio in fuste e in bottiglia
- 11 *EGAN, COTTLE, & Co., 1 Cecilia-street,
 Dublin
 Liqueurs, cordials, spirits, British wines, &c.
Liqueurs, spiritueux divers, vins anglais, etc.
 Liqueure, Magenstärkungen, geistige Getränke,
 Britische Weine etc.
Liquori, cordiali, spiriti, vini britannici, ecc.
- 12 *FOWLER, JOHN, & Co. (Limited), Preston-
 pans
 Malt liquors
Boissons tirées du malt
 Malzliqueure
Liquori fatti con cereali fermentati
- 13 FRYER, DANIEL, Epney, near Stonehouse,
 Gloucestershire
 Cyder and perry
Cidre, poiré
 Apfel- und Birnwein
Sidro, e vino di pere
- 14 GARDNER, GODDEN, & Co., Ash Brew-
 ery, Sandwich
 Ales
Ales
 Ale
Ale
- 15 GARTON, CHARLES, & Co., Lawrence-hill,
 Bristol
 Ales, stout, and wine
Ales, stout, et vino
 Weissbiere, Stout und Wein
Ale, stout, e vino
- 16 HENLEY & SON, Joiner-street, Tooley-
 street, London
 Cyder
Cidre
 Apfelwein
Sidro
- 17 IND, COOPE, & Co., Burton-on-Trent, and
 Romford, Essex
 Ale, stout, &c.
Ale, stout, etc.
 Weissbier, Stout etc.
Ale, stout, ecc.
- 18 STATHAM & Co., Trent Brewery, Shardlow-
 on-Trent
 Pale and strong ales
Pale ale, et ales fortes
 Weiss- und starke Biere
Ale pallido e generoso

GROUP VIII.

Live Stock, and Specimens of Agricultural Buildings.
Produits Vivants, et Spécimens d'Établissements de l'Agriculture.
 Haustihere und landwirthschaftliche Gebäude.
Bestiame e Saggi di Costruzioni Agrarie.

CLASSES LXXIV. and XLVIII.

Agricultural Apparatus and Processes
 used in the Cultivation of Fields and
 Forests; Farm Buildings and Agri-
 cultural Works.

*Matériel et Procédés des Exploitations
 Rurales et Forestières; Spécimens
 d'Exploitations Rurales, et d'Usines
 Agricoles.*

Ackerbaugeräthe und Verfahren, ange-
 wandt in der Cultur der Felder und
 Wälder landwirthschaftliche Ge-
 bäude und Werke.

*Apparati e Processi agrari usati nella
 Coltivazione dei Campi e delle Fo-
 reste; Edifici e Utensili Agrari.*

(For detailed classification, see p. xxvii.)

(*Voir le système de classification, p. xxvii.*)

(Für detaillirte Classification, siehe Seite xxvii.)
 (*Vedasi il sistema di classificazione, p. xxvii.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Lord Stanley, M.P.

Lord Portman

Lord Houghton

Right Hon. H. A. Bruce, M.P.

Sir Alexander Y. Spearman, Bart.

Sir William Stirling Maxwell, Bart. M.P.

Baron Mayer de Rothschild, M.P.

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E. Booth, Esq.

George T. Clark, Esq.

J. Bailey Denton, Esq.

C. Wren Hoskyns, Esq.

Charles Lawson, Esq.

Robert Leeds, Esq.

Sir Dudley C. Marjoribanks, Bart. M.P.

Philip W. S. Miles, Esq.

Reginald H. Nevell, Esq.

Alexander Ronaldson, Esq.

H. S. Thompson, Esq.

Henry Thring, Esq.

B. T. Brandreth Gibbs, Esq. *Secretary.*

JURORS—MEMBRES DU JURY PREISRICHTER—GIURATI.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

NOTE.—Names marked with an asterisk are those of
 persons who do not exhibit in this class.

(For the Exhibition at Billancourt, see Appendix
 p. 141)

1 ALLEN, E. E., 40 Parliament-street, West-
 minster, London (exhibits also at Billancourt)
 Portable steam engine
Machine à vapeur locomobile
 Mobile Dampfmaschine
Motore a vapore portatile

2 AMIES, BARFORD, & Co., Peterborough (ex-
 hibits also at Billancourt)
 Agricultural implements
Instruments d'agriculture
 Ackerbaugeräthe
Utensili agrari

3 ASHBY & JEFFERY, Rutland-terrace Iron
 Works, Stamford (exhibit also at Billan-
 court) (Appendix, p. 143)
 Agricultural machines, steam engines, &c.
Machines d'agriculture, machines à vapeur, etc.
 Landwirthschaftliche Maschinen, Dampfma-
 schinen etc.
Macchine agricole, motori a vapore, ecc.

4 AVELING & PORTER, 72 Cannon-street,
 London (Appendix, p. 186)
 Agricultural locomotive steam engine
*Moteur locomobile à l'usage des machines agri-
 coles*
 Mobile Dampfmaschine für den Ackerbau
Locomotiva a vapore agricola

5 BALL, W., & SON, High-street, Rothwell,
 Northamptonshire
 Agricultural implements
Instruments d'agriculture
 Ackerbaugeräthe
Utensili agrari

- 6** BAMLETT, A. C., Thirsk, Yorkshire
Reaping and mowing machines
Moissonneuses et faucheuses
Ernte- und Mähmaschinen
Macchine da mietere e da falciare
- 7** BARROWS & CARMICHAEL, Banbury (exhibit also at Billancourt)
Agricultural portable steam engine of eight horse-power
Moteur locomobile de la force de huit chevaux à l'usage des machines agricoles
Transportirbare Dampfmaschine von acht Pferdekraft für den Ackerbau
Motore a vapore portatile agricolo della forza di otto cavalli
- 7A** BEENEY, E., JUN. (see Class 26)
- 8** BENTALL, E. H., Heybridge Works, near Maldon (exhibits also at Billancourt)
Agricultural implements
Instruments d'agriculture
Ackerbaugeräthe
Utensili agrari
- 9** BEVERLEY IRON AND WAGGON COMPANY (Limited), Beverley (Appendix, p. 142)
Patent three-horse reaping machine (at Billancourt)
Moissonneuse brevetée mue par trois chevaux (à Billancourt)
Patentirte Erntemaschinen für drei Pferde (ausgestellt zu Billancourt)
Macchine mietitrici a tiro a tre, patentate (a Billancourt)
- 10** BOYD, J., & Co., 48 Cannon-street, London
Agricultural and horticultural machinery
Instruments et appareils de l'agriculture et de l'horticulture
Maschinerie für den Feld- und Gartenbau
Meccanismi agricoli ed orticoli
- 11** BRABY, J., & SON, 42 Newington Causeway, Southwark, London (exhibit also at Billancourt)
Water cart
Appareil d'arrosment
Wagen zum Sprengen
Carro irrigatore
- 12** BRIGHAM & BICKERTON, Tweed Implement Works, Berwick-on-Tweed
Patent reaping machine; horse rake (at Billancourt)
Moissonneuse brevetée; rateau à cheval (à Billancourt)
Patentirte Erntemaschine, Pferderechen (zu Billancourt)
Macchine mietitrice (patentata); rastrella a cavalli (a Billancourt)
- 13** BROWN, W., & MAY, C. N., North Wilts Foundry, Devizes
Thrashing machines and steam engines
Machines à battre le blé et machines à vapeur
Dresch- und Dampfmaschinen
Trebbiatoi, e motori a vapore
- 14** CARSON & TOONE, Warminster, Wilts
Agricultural and dairy implements
Instruments d'agriculture et ustensiles de la laiterie
Ackerbau- und Milchwirtschaftsgeräthe
Utensili agrari e da cascina
- 15** CLARKE & SON, Brackley, Northamptonshire
Scythes—*Faux*
Sensen—*Falci*
- 16** CLAYTON, SHUTTLEWORTH, & Co., Lincoln (exhibit also at Billancourt) (Appendix, pp. 146-9)
Portable, traction, and fixed steam engines, thrashing machines, &c.
Machines à vapeur locomobiles, tractoires et fixes, machines à battre le blé, etc.
Transportable und stehende Dampfmaschinen, Strassen-Locomotiven, Dreschmaschinen etc.
Motori a vapore fissi, portatili, e a trazione, trebbiatoi, ecc.
- 17** COLEMAN & MORTON, London-road Iron Works, Chelmsford (exhibit also at Billancourt)
Agricultural implements and machines
Machines et instruments d'agriculture
Ackerbaugeräthe und Maschinen
Utensili e macchine agrarie
- 18** COPPARD, J., & Co., 84 Fleet-street, London
Improved roughing for horse-shoes
Outils de ferrer les chevaux à glace
Verbesserte Weise, Hufeisen zu schärfen
Perfezionamento nella ferratura a ghiaccio dei cavalli
- 19** DEAN, JOHN, Blenheim Foundry, Woodstock, Oxfordshire (exhibits also at Billancourt)
Patent sheep and feeding troughs
Rateliers-mangeoires à moutons, brevettées
Patentirte Schaf- und Futtertröge
Trogoli per le pecore, e per foraggi (patentati)
- 20** DELL, W. R., Mark-lane, London
Wheat-cleaning machines, mill-stones, &c. (at Billancourt)
Machines pour le nettoyage du blé, meules, etc. (à Billancourt)
Weizenreinigungsmaschinen, Mühlsteine etc. (zu Billancourt)
Macchine per mondar frumento, mole, ecc. (a Billancourt)
- 21** FOWLER, J., & Co., Cornhill, London
Steam plough—*Charrue à vapeur*
Dampfpflug—*Aratro a vapore*
- 22** FOX, WALKER, & Co., Atlas Iron Works, Bristol
Portable steam engine
Machine à vapeur locomobile
Transportable Dampfmaschine
Macchina a vapore portatile
- 23** FREER, JOHN, Rothley, near Loughborough
Dibbling machine—*Plantoir*
Pflanzmaschine—*Foraterra*

- 24 GARRETT, RICHARD, & SONS, Leiston Works, near Saxmundham, Suffolk (exhibit also at Billancourt) (Appendix, p. 145)
Agricultural machines, and steam engines
Machines agricoles et machines à vapeur
Ackerbau- und Dampfmaschinen
Macchine agrarie, e motori a vapore
- 25 GOULDING, W. & H. M., Patrick-street, Cork, and Westmoreland-street, Dublin
Manures—*Engrais*
Dünger—*Concimi*
- 26 HARTLEY, JOHN, Otley Mills, Bradford, Yorkshire
Corn screen
Machine à cribler le blé
Kornsieb
Vaglio da grano
- 27 HILL & SMITH, Brierly Hill Iron Works, near Dudley
Agricultural implements
Instruments agricoles
Ackerbaugeräthe
Utensili agrari
- 28 HORNSBY, R., & SONS, Grantham
Steam engines, thrashing machines, ploughs, reapers, &c.
Machines à vapeur, machines à battre le blé, charrues, moissonneuses, etc.
Dampf- und Dreschmaschinen, Pflüge, Erntemaschinen etc.
Motori a vapore, trebbiatori, aratri, macchine da mietere, ecc.
- 29 HOWARD, J. & F., Britannia Iron Works, Bedford, and 4 Cheapside, London (exhibit also at Billancourt) (Appendix, pp. 150-3)
Steam ploughs and other agricultural implements
Charrues à vapeur et autres instruments agricoles
Dampfplüge und andere Geräthe des Ackerbaues
Aratri a vapore ed altri utensili agrari
- 30 *HUDSON, ALFRED, Baker's Cross Farm, Cranbrook, Kent
Apparatus for agricultural works relating to hop culture
Appareils agricoles servant à la culture du houblon
Ackerbaugeräthe für die Hopfenpflanzungen
Apparati per lavori agrari relativi alla cultura del luppolo
- 31 JAMES, I., Tivoli Works, Cheltenham
Liquid manure cart, &c. (at Billancourt)
Charrette pour le transport des engrais liquides, etc. (à Billancourt)
Jauchenwagen etc. (zu Billancourt)
Carri pei concimi liquidi, ecc. (a Billancourt)
- 32 KEARSLEY, HENRY & GEORGE, North-street, Ripon
Grass-mowing and reaping machines
Faucheuses et moissonneuses
- Grasmähe- und Erntemaschinen
Macchine da mietere e da falciare
- 33 LONDON MANURE COMPANY, 116 Fenchurch-street, London
Chemical manures
Produits chimiques pour engrais
Chemische Dünger
Concimi chimici
- 34 MARSHALL, SONS, & Co. (Limited), Gainsborough (exhibit also at Billancourt) (Appendix, p. 154)
Portable and fixed engines, thrashing machines, mills, &c.
Machines locomobiles et fixes, machines à battre le blé, système de meules, etc.
Transportable und stehende Dampfmaschinen, Dreschmaschinen, Mühlen etc.
Motori portatili e fissi, trebbiatori, mulini, ecc.
- 35 MCLEAN & HOPE, 51 Timber Bush, Leith
Materials and products of Scottish agriculture
Matériel et produits de l'agriculture en Écosse
Materialien und Producte des Schottischen Feldbaues
Materiali e prodotti di agricoltura scozzese
- 36 *McSHERRY, M., Limerick
Agricultural boilers
Chaudières pour usages agricoles
Landwirthschaftliche Kessel
Caldaje par usi agrari
- 38 NICHOLSON, W. N., Trent Iron Works, Newark (exhibits also at Billancourt)
Hay-making and other agricultural machines
Faneuses et autres machines agricoles
Maschinen zum Heumachen und für andere Zwecke des Feldbaues
Macchine agrarie per fienatura ed altro
- 39 NOONE & Co., 5 Stratford-place, Hastings
Sewage manure, and model of works
Poudrette, et modèle d'usine
Dünger, gewonnen von den Cloaken, und Modell der Fabrik
Concimi di cloaca e modello di officina
- 40 PACKARD, E., & Co., 6 Princes-street, Ipswich (Appendix, p. 155)
Materials used in the manufacture of artificial manures
Produits employés à la fabrication des engrais artificiels
Materialien, gebraucht in der künstlichen Düngerfabrication
Materiali usati nella manifattura di concimi artificiali
- 41 PARKES, PALMER, & HODGKINSON, Sutton Works, Birmingham
Spades, shovels, forks, axes, &c.
Bêches, pelles, fourches, haches, etc.
Spaten, Schaufeln, Gabeln, Aexte etc.
Vanghe, pale, forconi, accette, ecc.

- 42 PENNEY & Co. (Limited)**, 16 Broadgate, Lincoln (Appendix, p. 155)
 Rotary corn separator, winnowing and dressing machine, &c. (at Billancourt)
Appareil rotatif pour l'épuration des grains, machine pour vanner et préparer le blé (à Billancourt)
 Centrifugale Korntrennmachine, Kornschwinge und Reinigungsmaschine etc. (zu Billancourt)
Macchina rotatoria per scegliere, ventilare, e mondar il grano, ecc. (a Billancourt)
- 43 PICKSLEY, SIMS, & Co. (Limited)**, Bedford Leigh, Lancashire (exhibit also at Billancourt)
 Agricultural machinery
Machines agricoles
 Ackerbaumaschinerie
Meccanismi agricoli
- 44 RANSOMES & SIMS, Ipswich** (exhibit also at Billancourt) (Appendix, pp. 156-163)
 Steam engines, thrashing machines, ploughs, mills, &c.
Machines à vapeur, machines à battre le blé, charrues, moulins, etc.
 Dampf- und Dreschmaschinen, Pflüge, Mühlen etc.
Motori a vapore, trebbiatoi, aratri, mulini, ecc.
- 45 THE READING IRON WORKS, Reading** (Appendix, pp. 164-5)
 Steam engines and agricultural machinery
Machines à vapeur et instruments d'agriculture
 Dampfmaschinen und Maschinerie für den Feldbau
Motori a vapore, e meccanismi agricoli
- 46 RICHMOND & CHANDLER, Salford, Manchester** (Appendix, p. 172)
 Chaff-cutting, corn-crushing machines
Haches-pailles, concasse-grain
 Maschinen zum Spreuschneiden und Kornzerquetschen
Macchine taglia-paglie, e stritolagrani
- 47 ROBEY & Co. (Limited)**, Canwick-road, Lincoln (exhibit also at Billancourt) (Appendix, pp. 166-9)
 Thrashing machines, steam engines, &c.
Machines à battre le blé, machines à vapeur
 Dresch- und Dampfmaschinen etc.
Trebbiatoi, motori a vapore, ecc.
- 48 RUSTON, PROCTOR, & Co., Sheaf Iron Works, Lincoln** (exhibit also at Billancourt)
 Thrashing machines, mills, engines, &c.
Machines à battre le blé, moulins, moteurs, etc.
 Dreschmaschinen, Mühlen, Dampfmaschinen etc.
Trebbiatoi, mulini, motori, ecc.
- 49 SAMUELSON & Co., Britannia Works, Banbury** (exhibit also at Billancourt)
 Agricultural implements
Instruments agricoles
 Ackerbaugeräthe
Utensili agricoli
- 50 SHEEN, THOMAS, Buckingham-road, Aylesbury**
 Chaff machines, tin shovels, horse hoes, &c.
Haches-pailles, pelles d'étain, hoes à cheval, etc.
 Spreuschneide-Maschinen, Zinnschaufeln, Pferdehacken etc.
Macchine taglia-paglia, pale stagnate, zappe, ecc.
- 51 SMITH, THOMAS, & SONS, Buckingham-road, Herstmonceux, Hurst-green, Sussex**
 Truck baskets, sheep-feeding cribs, &c.
Paniers de bois, crèches à moutons, etc.
 Futterkörbe, Krippen für Schafe etc.
Panieri carriuole, greggie da pecore, ecc.
- 52 SMITH, WILLIAM, Royal Iron Works, Kettering, Northamptonshire**
 Agricultural machines
Machines agricoles
 Ackerbaumaschinen
Macchine agricole
- 53 SMYTH, J., & SONS, Peasenhall, near Yoxford, Suffolk** (exhibit also at Billancourt)
 Drills, sowing machines, manure distributors
Semoirs, appareils pour la distribution des engrais
 Rill- und Säemaschinen, Apparate, um den Dünger auszubreiten etc.
Seminatori, machine seminatrici, concimatoi
- 54 SWINDELL & Co., Withymoor Works, Dudley**
 Spades, shovels, draining tools, &c.
Bêches, pelles, instruments de drainage, etc.
 Spaten, Schaufeln, Werkzeuge, um Entwässerungsgräben zu machen, etc.
Vanghe, pale, arnesi pelli scoli, ecc.
- 55 *TASKER, W., & SONS, Waterloo Iron Works, Andover**
 Portable steam engine, thrashing and dressing machine
Machine à vapeur locomobile, machine à battre et à préparer le blé
 Transportable Dampfmaschine, Dresch- und Reinigungsmaschine
Motore a vapore portatile, trebbiatoio et mondatoio
- 56 TAYLOR, FRANCIS, Church-street, Romsey Hampshire**
 Model of patent apparatus for collecting and drying human excrement into guano
Modèle d'un appareil breveté pour recueillir les résidus des centres de population et les dessécher pour engrais, etc.
 Modell eines patentirten Apparates, um menschliche Excremente zu sammeln und in Guano zu verwandeln
Modello di apparato (patentato) per raccogliere e trasformare gli escrementi umani in guano
- 57 THOMSON, R. W., 3 Moray-place, Edinburgh**
 Portable steam crane with differential rotary engine
Grue roulante à vapeur, avec machine rotatoire différentielle
 Mobiler Dampfkrahn mit Differential-Maschine mit Kreisbewegung
Gru à vapeur portatile, con motore rotatore differenziale

58 TURNER, E. R. & F., St. Peter's Iron Works, Ipswich (Appendix, p. 171)
 Agricultural engines, mills, &c.
Machines agricoles, moulins, etc.
 Ackerbaumaschinen, Mühlen etc.
Macchine agricole, mulini, ecc.

59 UNDERHILL, W. S., Newport
 Thrashing machines, horse-rakes, cultivators
Machines à battre le blé, rateaux mus par des chevaux, instruments aratoires
 Dreschmaschinen, Pferderechen, Cultivatoren
 (Eggen für Brachland)
Trebbiatoi, rastrelli a cavalli, coltivatori

60 WALLIS, HASLAM, & STEEVENS, Basing-stoke
 Thrashing machines
Machines à battre le blé
 Dreschmaschinen
Trebbiatoi

61 *WOODBOURNE, J., Park Iron Works, Kingsley, near Alton
 Agricultural implements
Instruments d'agriculture
 Ackerbaugeräthe
Utensili agrari

62 WOODS & COCKSEGE, Stowmarket, Suffolk (Appendix, p. 173)
 Agricultural implements
Instruments d'agriculture
 Ackerbaugeräthe
Utensili agrari

CLASS LXXV.

Specimens of Stabling, &c.
Types d'Écuries, d'Étables, etc.
 Stallgeräthe etc.
Saggi di Stallaggio, ecc.

(For detailed classification, see p. xxvii.)
 (Voir le système de classification, p. xxvii.)
 (Für detaillirte Classification, siehe Seite xxvii.)
 (Vedasi il sistema di classificazione, p. xxvii.)

COMMITTEE—COMITÉ
 AUSSCHUSS—COMITATO.

Duke of Wellington, K.G.
 Marquess of Salisbury, K.G.
 Viscount Combermere
 Lord Stanley, M.P.
 Lord Portman
 Lord Houghton
 Right Hon. H. A. Bruce, M.P.
 Sir Alexander Y. Spearman, Bart.
 Lieut.-Colonel R. Nigel P. Kingscote, C.B. M.P.
 Lieut.-Colonel G. A. Maude, C.B. R.A.
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 Henry Dixon, Esq.
 M. J. Higgins, Esq.
 Charles Lawson, Esq.
 Philip W. S. Miles, Esq.
 Richard Milward, Esq.
 Alexander Ronaldson, Esq.
 H. S. Thompson, Esq.
 Captain Anstruther Thomson
 Henry Thring, Esq.
 Captain Percy Williams
 W. Williamson, Esq.
 S. Sidney, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO.

M. Higgins, Esq.

ASSOCIATE—ASSOCIÉ
 HÜLFSPREISRICHTER—ASSOCIATO.

Captain Cockerell.

1 COTTAM & Co., 2 Winsley-street, Oxford-street, London, w. (Appendix, pp. 302-3)
 Stable fittings, harness fittings, &c.
Aménagements d'écuries et pour l'entretien des harnais, etc.

Stallgeräthe, Geschirrhälter etc.
Fornimenti da stalla, fornimenti per sellerie, ecc.

2 MUSGRAVE BROTHERS, Ann-street Iron Works, Belfast (Appendix, pp. 304-5)
 Stable and harness-room fittings, iron cow stalls, dog kennels, and piggeries, &c.
Aménagements d'écuries et pour l'entretien des harnais, étables à vaches, chenils et porcherie de fer, etc.

Ausstattung für Ställe und den Geschirrplatz, eiserne Kuh-, Hunde- und Schweineställe etc.
Fornimenti da stalla e selleria, stalla in ferro per vacche, canili, porcili, ecc.

3 THE ST. PANCRAS IRON WORKS COMPANY, Old Saint Pancras-road, London, n.w.
 Stable and harness-room fittings, &c., model of patent stable
Aménagements d'écuries et pour l'entretien des harnais, etc.; modèle d'écurie brevetée
Ausstattung für den Stall und den Geschirrplatz etc.; Modell eines patentirten Stalles
Fornimenti da stalla e selleria, ecc., modello di stalla patentato

CLASS LXXIX.

Poultry.

Oiseaux de basse-cour.

Geflügel.

Pollame.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Lord Stanley, M.P.

Lord Portman

Lord Houghton

Right Hon. H. A. Bruce, M.P.

Sir Alexander Y. Spearmen, Bart.

John Baily, Esq.

George T. Clark, Esq.

John Gibson, Esq.

Charles Lawson, Esq.

Rev. Stephen W. Lawley

Philip W. S. Miles, Esq.

T. Parker, Esq.

Alexander Ronaldson, Esq.

H. S. Thompson, Esq.

Henry Thring, Esq.

Harrison Weir, Esq.

T. Chesman, Esq., Secretary.

JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.

(No Juror allowed.)

(Point de Juré nommé.)

(Kein Preisrichter ernannt.)

(Nessun Giurato nominato.)

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 *LA MOELE, F., The Paragon, Salisbury
Patent incubator (see Agricultural Building)
*Appareil d'éclosion artificielle (voir le Bâtiment
d'Agriculture)*
Patentirter Incubator (siehe landwirthschaft-
liches Gebäude)
*Covatora patentato (vedasi Compartimento
d'Agricoltura)*

CLASS LXXXI.

Useful Insects.

Insectes Utiles.

Nützliche Insecten.

Insetti Utili.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Lord Stanley, M.P.

Lord Portman

Lord Houghton

Right Hon. H. A. Bruce, M.P.

Sir Alexander Y. Spearmen, Bart.

Frank T. Buckland, Esq. F.Z.S.

George T. Clark, Esq.

Rev. John Cumming, D.D.

Seton Laing, Esq.

Charles Lawson, Esq.

Philip W. S. Miles, Esq.

Alfred Neighbour, Esq.

Reginald H. Nevell, Esq.

Edward Newman, Esq.

Alexander Ronaldson, Esq.

W. B. Tegetmeier, Esq.

H. S. Thompson, Esq.

Henry Thring, Esq.

A. J. R. Trendell, Esq. Secretary.

JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.

(No Juror allowed.)

(Point de Juré nommé.)

(Kein Preisrichter ernannt.)

(Nessun Giurato nominato.)

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 *BURN, ALEXANDER, M.D., 17 Gilston-road,
West Brompton, London
Insects
Insectes
Insecten
Insetti
- 2 LOVEY, EDWARD, Ponsnooth, Perran-wharf,
Cornwall
Bee-hives
Ruches
Bienenstöcke
Alveare
- 3 NEIGHBOUR, GEORGE, & SONS, 149 Regent-
street, London, W.
Beehives and bees at work
Ruches, avec leurs abeilles
Bienenstöcke mit arbeitenden Bienen
Arnia e api al lavoro
- 4 PETTITT, WYATT JOHN, 151 Suargate-street,
Dover
Bee-hives and apiarian furniture
Ruches et matériel de l'élevage des abeilles
Bienenkörbe und Geräte für die Bienenzucht
Alveare e fornimenti pelle api

GROUP IX.

Plants and Specimens of Horticultural Works.
Produits vivants et Spécimens d'Etablissements de l'Horticulture.
 Pflanzen und Proben der Gartenwirthschaft.
Piante e Saggi di Officine d'Orticoltura.

President of the Jury . . .	} DUKE OF CLEVELAND, K.G.
<i>Président du Jury</i> . . .	
Präsident des Preisgerichts . . .	
<i>Presidente dei Giurati</i> . . .	

COMMITTEE FOR THE GROUP.

Duke of Roxburghe, K.T.
 Earl Craven
 Earl of Lonsdale
 Earl of Stair
 Lord Henry C. G. Lennox, M.P.
 Lord Elcho, M.P.
 Lord Crewe
 Lord Portman
 Lord Egerton of Tatton
 Lord Taunton
 Right Hon. C. B. Adderley, M.P.
 Right Hon. H. A. Bruce, M.P.
 Sir C. Wentworth Dilke, Bart. M.P.
 Major-Gen. Sir A. Scott Waugh, R.E.
 Baron M. de Rothschild, M.P.
 James Anderson, Esq.
 James Barnes, Esq.
 William Barron, Esq.
 George E. Blenkins, Esq.
 William Bull, Esq.
 Wentworth W. Buller, Esq.
 Major Trevor Clarke
 Louis Cottam, Esq.
 John Cox, Esq.
 James Cranston, Esq.
 L. H. Cumberbatch, Esq.
 Francis N. Dancer, Esq.
 Arthur Dickson, Esq.

James Dickson, Esq. senr.
 Rev. Joshua Dix
 Charles Edmonds, Esq.
 Robert Fish, Esq.
 John Fleming, Esq.
 Philip Frost, Esq.
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 John Gibson, Esq.
 James Gray, Esq.
 Thomas Green, Esq.
 Arthur Henderson, Esq.
 R. S. Holford, Esq. M.P.
 A. J. B. Beresford Hope, Esq. M.P.
 G. Houghton, Esq.
 Thomas E. Ingram, Esq.
 William Ingram, Esq.
 John Kelk, Esq. M.P.
 Charles Lawson, Esq.
 John Lee, Esq.
 William Menzies, Esq.
 Joseph Meredith, Esq.
 Dr. D. Moore
 Thomas Moore, Esq. F.L.S.
 William Mudd, Esq.
 Andrew Murray, Esq. F.L.S.
 William Myatt, Esq.
 Henry Ormson, Esq.
 William Paul, Esq.

John Peel, Esq.
 Robert T. Pince, Esq.
 Richard Read, Esq.
 Richard Redgrave, Esq. R.A.
 Samuel Redgrave, Esq.
 Thomas Rivers, Esq.
 John Robson, Esq.
 Sigismund Rücker, Esq. F.L.S.
 John Shaw, Esq.
 W. Skirving, Esq.
 W. Baxter Smith, Esq.
 Lewis Solomon, Esq.
 J. De C. Sowerby, Esq.
 Tom Stansfield, Esq.
 Martin H. Sutton, Esq.
 James Taplin, Esq.
 Thomas Taylor, Esq.
 H. S. Thompson, Esq.
 David Thomson, Esq.
 William Thomson, Esq.
 Charles Turner, Esq.
 John Unite, Esq.
 James Veitch, Esq.
 Anthony Waterer, Esq.
 John Webster, Esq.
 John Weeks, Esq.
 George F. Wilson, Esq.

Lieut.-Col. Scott, R.E. Capt. John Cockerell Dr. Masters Dr. Hogg	} Secretaries.
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CLASS LXXXIII.

Hot-houses and Horticultural Apparatus.

Serres et Matériel de l'Horticulture.

Treibhäuser und Gartengeräthe.

Serra calda e Apparatî d'Orticoltura.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Fürdetaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO.

Professor Balfour, M.D.

ASSOCIATE—ASSOCIÉ.

HÜLFSPREISRICHTER—ASSOCIATO.

Dr. T. Thomson, F.R.S.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

- 1 BARNARD, BISHOP, & BARNARD, Norwich
 Lawn mowers, iron netting
Machines pour tondre le gazon, treillage en fil de fer
 Ziergrasplatzmäher, Drahtnetze
Macchine per falciare pratelli, graticcio in filo metallico
- 1A AMIES, BARFORD, & Co. (see Classes 48 and 74)
- 2 BOYD, J., & Co., 76 Cannon-st. West, London
 Lawn mowers, trellis work, &c.
Machines pour tondre le gazon, treillage en fil de fer, etc.
 Ziergrasplatzmäher, Gitterwerk etc.
Macchine per falciare pratelli, graticcio in filo metallico, ecc.

3 BROWN, J. B., & Co., 90 Cannon-street, City, and 148 Upper Thames-street, London (Appendix, p. 306).

Lawn mowing machines, wire netting, &c.
Machines pour tondre les pièces de gazon, treillage en fil de fer, etc.

Mähmaschinen für Grasplätze, Drahtnetze etc.

Macchine per falciare pratelli, reti in filo metallico, ecc.

4 CLERIHUE & LASCELLES (see Class 65)

Melon light and box

Chassis de serre pour melons

Treibhaus für Melonen

Cosettone e vetrato per meloni

5 *COWAN, T. W., Ruabon

Drinking fountains, fern stands, &c.

Fontaines, jardinières pour les fougères, etc.

Trinkbrunnen, Gestelle für Farrenkräuter etc.

Getti d' acqua da bere, vetraie per falci, ecc.

6 CRANSTON, JAMES, 1 Temple-row West, Birmingham

Models and drawings of patent conservatories and greenhouses

Modèles et dessins de grandes et petites serres brevetées

Modelle und Zeichnungen von patentirten Gewächs- und Treibhäusern

Modelli e disegni di serre grandi e piccole patentate

7 HAYTHORN, J. W., 20 Chamber-street, Nottingham

Nets for protection of fruit

Filets pour protéger les fruits

Netze zur Beschützung von Früchten

Reticelle per proteggere le frutta

8 *HOWITT, WILLIAM, Clifton House, Rosherville

Model of conservatory

Modèle de grande serre

Modell eines Gewächshauses

Modello di serra grande

9 MESSENGER, T. G., Loughborough

Model of vinery and plant-house and fittings

Modèle de serre à vigne et plantes d'ornement, avec accessoires

Modell eines Gewächshauses für Weinstöcke und Zierpflanzen und Zubehör

Modello di stufa per le viti e di serra, con attrazzi

10 MILBURN, J., Market-street, Hollingworth, near Hadfield

Lawn mowers, garden rollers, &c.

Machines à tondre le gazon, rouleaux pour jardins, etc.

Ziergrasplatzmäher, Gartenwalzen etc.

Macchine per falciare pratelli, rulli da giardini, ecc.

11 *MONRO, J., Osborne Park Gardens, Barnet, Middlesex

Boiler for heating horticultural buildings

Chaudière pour chauffer les établissements d'horticulture

Dampfkessel zur Erwärmung landwirthschaftlicher Gebäude

Calderone per iscaldare le officine d' orticoltura

11A SAYNOR & COOKE, Paxton Works, Sheffield

Horticultural cutlery

Outils d'horticulteur

Schneidewerkzeuge für die Gartencultur

Arnesi d'orticoltura

11B PICKSLEY, SIMS, & Co. (see Classes 48 and 74)

11C SAMUELSON & Co. (see Classes 48 and 74)

12 SHANKS, A., & SON, Arbroath, N.B.

Horticultural machines

Machines d'horticulture

Landwirthschaftliche Maschinen

Macchine da orticoltura

13 WELLS, C. T., 24 Bouverie-street, London

Ground vinery for ripening grapes without artificial heat

Serre à vigne pour faire mûrir le raisin sans chaleur artificielle

Mistbeet zur Reifung von Weintrauben ohne künstliche Hitze

Serra da vite per murare le uva senza caldo artificiale

CLASSES LXXXIV. and LXXXV.

Flowers, Ornamental Plants, and Vegetables.

Fleurs, Plantes d'Ornement, et Plantes Potagères.

Blumen, Zierpflanzen und Gemüse.

Fiori, Piante d' Ornamento, e Ortaggi.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

JUROR—MEMBRE DU JURY

PREISRICHTER—GIURATO.

(No Juror allowed.)

(Point de Juré nommé.)

(Kein Preisrichter ernannt.)

(Nessun Giurato nominato.)

1 SUTTON & SONS, Royal Berkshire Seed Establishment, Reading (Appendix, p. 307)

Vegetable, flower, and agricultural seeds of English growth

Graines de plantes potagères, de plantes d'ornement, etc., d'origine anglaise

Gemüse-, Blumen- und landwirthschaftliche Samen Englischer Zucht

Ortaggi, fiori, e semi d'agricoltura di produzione inglese.

CLASS LXXXVII.

Seeds and Saplings of Forest Trees.
Grains et Plantes d'Essences Forestières.
 Samen von Waldbäumen und junge
 Waldbäumchen.

Semi e piantoni d'alberi d'alto fusto.

(For detailed classification, see p. xxviii.)
 (Voir le système de classification, p. xxviii.)
 (Für detaillierte Classification, siehe Seite xxviii.)
 (Vedasi il sistema di classificazione, p. xxviii.)

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO

Dr. J. D. Hooker.

ASSOCIATE—ASSOCIÉ
 HÜLFSPREISRICHTER—ASSOCIATO.

Dr. Moore.

CLASS LXXXVIII.

Hothouse Plants.
Plantes de Serres.
 Treibhauspflanzen.
Piante di Stufa.

(For detailed classification, see p. xxviii.)
 (Voir le système de classification, p. xxviii.)
 (Für detaillierte Classification, siehe Seite xxviii.)
 (Vedasi il sistema di classificazione, p. xxviii.)

JUROR—MEMBRE DU JURY
 PREISRICHTER—GIURATO.

James Veitch, Esq.

ASSOCIATE—ASSOCIÉ
 HÜLFSPREISRICHTER—ASSOCIATO.

F. W. Brady, Esq., Q.C.

1 VEITCH, JAMES, & SONS, Royal Exotic Nur-
 sery, Chelsea, London.
 Stove, greenhouse, and hardy plants
Plantes de serre chaude, de serre tempérée, et
de pleine terre
 Pflanzen, gezogen im Treibhause und in der
 freien Luft
Piante di stufa fredda, di stufa temperata e
di piana terra

GROUP X.

Articles exhibited with the special object of Improving the Physical and Moral Condition of the People.

Objets spécialement exposés en vue d'améliorer la Condition Physique et Morale de la Population.

Gegenstände, ausgestellt mit der besonderen Absicht, die physische und moralische Lage des Volkes zu verbessern.

Oggetti esposti col fine speciale di migliorare la Condizione Fisica e morale del Popolo.

Vice President of the Jury . . .	} SIR J. P. KAY SHUTTLEWORTH, BART.
<i>Vice-Président du Jury</i> . . .	
Vice-Präsident des Preisgerichts . . .	
<i>Vice Presidente dei Giurati</i> . . .	

CLASS LXXXIX.

Apparatus and Methods used in the Instruction of Children.

Matériel et Méthodes de l'Enseignement des Enfants.

Apparate und Methoden, die beim Unterricht der Kinder gebraucht werden.

Apparecchi e Metodi in uso nell' Istruzione dei Fanciulli.

(For detailed classification, see p. xxviii.)

(*Voir le système de classification, p. xxviii.*)

(Für detaillirte Classification, siehe Seite xxviii.)

(*Vedasi il sistema di classificazione, p. xxviii.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Earl of Rosse, K.P.

Earl Russell, K.G.

Lord Stanley, M.P.

Lord Houghton

Hon. and Rev. S. Best

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. W. F. Cowper, M.P.

Right Hon. Robert Lowe, M.P.

Right Hon. C. B. Adderley, M.P.

Right Hon. H. A. Bruce, M.P.

Sir Francis R. Sandford

Edgar A. Bowring, Esq. C.B.

Very Rev. Richard Dawes, Dean of Hereford

Harry Chester, Esq.

George T. Clark, Esq.
Thomas Field Gibson, Esq.
Solomon A. Hart, Esq. R.A.
William Hawes, Esq.
M. Rohde Hawkins, Esq.
John Hullah, Esq.
Edmund C. Johnson, Esq.
Rev. M. Mitchell
Rev. Canon Norris
Rev. William Rogers
George E. Street, Esq.

C. W. Merrifield, Esq. F.R.S. *Secretary.*

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PREISRICHTER—GIURATO.

Rev. Canon Norris.

ASSOCIATE—ASSOCIÉ.
HULFSPREISRICHTER—ASSOCIATO.

E. C. Johnson, Esq.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 CRONMIRE, J. M. & H., 10 Bromehead-street,
Commercial-road, London
Drawing instruments, &c.
Matériel pour l'enseignement du dessin, etc.
Zeichneninstrumente etc.
Strumenti pel disegno ecc.

2 *CUTTER, WILLIAM GEORGE, 35 Great Russell-
street, London
Objects of natural history
Objets d'histoire naturelle
Gegenstände der Naturgeschichte
Oggetti di storia naturale

- 3 DAMON, ROBERT, Weymouth
Types and genera of mollusca, exotic land shells, and British fossils
Types et genres des mollusques, écailles étrangères, et fossiles de la Grande-Bretagne
Muster und Genera von Weichthieren, exotischen Landmuscheln und Britischen Fossilien
Tipi e generi di molluschi, conchiglie, esotiche terrestri, e fossili, britannici
- 4 GRAY, JAMES, 33 Richmond-place, Edinburgh
Raised maps for the blind
Cartes en relief pour l'enseignement des aveugles
Reliefkarten für Blinde
Mappe in rilievo per ciechi
- 5 HAMMER, GEORGE M., 44 Harrington-street, London
School furniture and educational apparatus
Mobilier d'école et matériel de l'enseignement
Schulgeräthe und Erziehungsapparate
Mobilia da scuola, e apparati educativi
- 6 HAWES, JOHN, 7 Adelphi-terrace, London
Leaves and seed vessels, anatomised
Feuilles et péricarpes anatomisés
Blätter und Samengefäße, zergliedert
Foglie e vasi seminati dissecati
- 7 *HAWKINS, B. WATERHOUSE, Crystal Palace, Upper Norwood, Surrey
Bas-relief of restorations of extinct animals
Bas-reliefs représentant des races d'animaux éteintes restaurées
Restaurationen von ausgestorbenen Thieren in Bas-relief
Basso rilievo di restauri di animali estinti
- 8 MITFORD, BERTRAM, Northumberland-lodge, Cheltenham
Apparatus for the deaf, dumb, blind, &c.
Appareils pour l'enseignement des sourds, des muets, des aveugles, etc.
Apparat für die Tauben, Stummen, Blinden etc.
Apparati pei sordi, muti, ciechi, ecc.
- 9 PRINCE, MISS, 29 Norfolk-crescent, Hyde-park, London
The English Pinakothek
'Pinakothek' anglais, jeu ayant pour objet l'enseignement du dessin
Die Englische Pinakothek
La Pinacoteca inglese
- 10 *SCOTT, WENTWORTH LASCELLES (see Class 12)
Tables for lecture-rooms and the use of museums
Tables pour les salles de cours, et pour l'usage des musées
Tische für Vorlesehallen und für Museen
Tavole per sale da lezione e ad uso dei musei
- 12 STATHAM, WILLIAM EDWARD, 111 Strand, London (Appendix, p. 322)
Cheap apparatus for instruction in chemistry, electricity, optics, &c.
Appareils à bon marché destinés à l'enseignement de la chimie, de l'électricité, de l'optique
- Wohlfeile Apparate für den Unterricht in Chemie, Electricität, Optik etc.
Apparati economici per l'insegnamento della chimica, dell'elettricità, dell'ottica, ecc.
- 13 STEVENS, WILLIAM, 3 Eliza-place, Shacklewell-lane, London
Preserved natural flowers
Fleurs naturelles desséchées
Conservirte natürliche Blumen
Fiori naturali conservati
- 14 WILLIAMS, ALFRED, Windsor
The Windsor School Desk, patented
Pupitre d'écolier dit de Windsor (breveté)
Die 'Windsor'-Schulbank (Patent)
Il leggio, detto della Scuola di Windsor, patentato
- 15 *WILSON, FREDERICK J., Willington Hall, Leamington
Circular table monogram of the whole of the alphabet and numerals in an everlasting line
Monogramme circulaire contenant toutes les lettres de l'alphabet, les chiffres, etc.
Kreisförmiges Monogramm des ganzen Alphabets und der Zahlen in fortlaufender Linie
Monogramma in tavola circolare di tutto l'alfabeto e numeri in una linea continua
- 16 WRIGHT, BRYCE, 90 Great Russell-street, London
Minerals, fossils, and shells
Collections de minéraux, de fossiles, et de coquilles
Mineralien, Fossilien und Muscheln
Minerali, fossili, e conchiglie
-
- Educational Works, Maps, &c.
Ouvrages pour l'Enseignement, Cartes, etc.
Schulbücher, Karten etc.
Opere Educative, Mappe, ecc.
- 17 THE BIBLE STAND COMMITTEE, Crystal Palace, Sydenham
The Bible
La Sainte Bible
Die Bibel
Bibbia
- 18 BLACK, ADAM & CHARLES, 6 North Bridge Edinburgh
Maps
Cartes
Karten
Mappe
- 19 BORSCHITZKY, JOHN FRANCIS, 32 Tavistock-place, London
Diagrams representing the international system of musical education, and music illustrating the system
Tableaux et morceaux de musique démontrant le système international pour l'enseignement de la musique

- Diagramm zur Erklärung des internationalen Systems für den Musikunterricht, und Musik zur Erklärung des Systems
Diagrammi rappresentanti il sistema internazionale dell' educazione musicale, e musica illustrativa del sistema
- 20 THE BRITISH AND FOREIGN BIBLE SOCIETY, 10 Earl-street, Blackfriars, London
 The Holy Scriptures in 173 languages and 213 versions
L'Écriture Sainte en 173 langues et en 213 versions
 Die Heilige Schrift in 173 Sprachen und 213 Uebersetzungen
Le Sacre Scrittura in 173 lingue e 213 versioni
- 21 GILBERT, JAMES, 2 Devonshire-grove, Old Kent-road, London
 Books
Livres
 Bücher
Libri
- 22 *HAY, MARGARET, care of G. Redgrave, Blue Anchor-road, Bermondsey, London
 Book
Livre
 Buch
Libro
- 23 THE HOME AND COLONIAL SCHOOL SOCIETY, Gray's-inn-road, London
 Educational books, models, and apparatus
Appareils, livres et modèles destinés à l'enseignement des enfants
 Schulbücher, Modelle und Apparate
Libri educativi, modelli, apparati
- 23A LOTH, JOHN THOMAS, 27 Rutland-street, Edinburgh
 Typographical tables
Tableaux typographiques
 Typographische Tabellen
Tavole tipografiche
- 24 NASMITH, DAVID, 3 Middle Temple-lane, London
 A chronometrical chart of the history of England
Tableau chronométrique de l'histoire d'Angleterre
 Eine chronometrische Karte der Englischen Geschichte
Carta cronometrica della storia d' Inghilterra
- 25 OLIVER & BOYD, Tweeddale-court, Edinburgh
 Educational works
Ouvrages pour l'enseignement
 Schulbücher
Opere educative
- 26 PHILIP, GEORGE, & SON, 32 Fleet-street, London
 Maps and atlases, books
Cartes géographiques et atlas; livres
 Karten und Atlasse, Bücher
Mappe e atlanti, libri
- 27 POTTS, ROBERT, M.A., Trinity College, Cambridge
 Educational works
Ouvrages pour l'enseignement
 Schulbücher
Opere educative
- 28 THE PURE LITERATURE SOCIETY, 11 Buckingham-street, Strand, London
 Books, diagrams, &c.
Livres, tableaux, etc.
 Bücher, Diagramme etc.
Libri, diagrammi, ecc.
- 29 THE RELIGIOUS TRACT SOCIETY, 56 Paternoster-row, London
 Periodicals, &c.
Publications périodiques, etc.
 Zeitschriften etc.
Periodici, ecc.
- 30 THE SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE, 77 Great Queen-street, London
 Bibles, prayer-books, maps, engravings, &c.
Bibles, livres de prières, cartes géographiques, gravures, etc.
 Bibeln, Gebetbücher, Karten, gestochene Zeichnungen, etc.
Bibbie, libri di preghiere, mappe, incisioni, ecc.
- 31 STANFORD, EDWARD, 6 Charing-cross, London
 School maps and atlases
Cartes géographiques et atlas pour l'enseignement élémentaire
 Schulkarten und Atlasse
Mappe e atlanti scolastici
- 32 THE SUNDAY SCHOOL UNION, 56 Old Bailey, London
 Educational works
Ouvrages pour l'enseignement
 Schulbücher—*Opere educative*
- 33 *UNITED ASSOCIATION OF SCHOOLMASTERS OF GREAT BRITAIN, Alfred Jones, 8 Shakspeare-terrace, Albion-grove, Stoke Newington, London
 Transactions and educational works of the association
Mémoires et ouvrages pour l'enseignement publiés par l'association
 Verhandlungen und Schulbücher der Gesellschaft
Atti ed opere della Società Educativa
- 34 WILDE, R. T., 35 Mason-street, New Cross, London
 Geological model in relief
Modèle géologique en relief
 Geologisches Modell in Relief
Modello geologico in rilievo

Voluntary Societies; Charitable Institutions, &c.

Sociétés Volontaires; Institutions Bénévoles, etc.

Freiwillige Gesellschaften; wohlthätige Anstalten u. s. w.

Società Volontarie; Istituti da Benevolgenza

35 SCIENCE AND ART DEPARTMENT, South Kensington, London (see Appendix, p. 308)

Collection of the most recent yearly reports published by some of the charitable, benevolent, and voluntary societies and institutions of Great Britain and Ireland, made at the request of the Imperial Commission (see also Group II. Class 6)

Collection des rapports annuels les plus récents publiés par quelques-unes des sociétés et institutions de charité, de bienfaisance et volontaires de la Grande-Bretagne et d'Irlande, faite sur la demande de la Commission Impériale (voir le Groupe II. Classe 6.)

Sammlung der letzten jährlichen Berichte, welche von mehreren der christlichen, wohlthätigen und freiwilligen Gesellschaften und Anstalten Grossbritanniens und Irlands veröffentlicht worden sind; die Sammlung wurde dem Wunsche der kaiserlichen Commission gemäss gemacht (siehe ebenso Gruppe II. Klasse 6)

Collezione dei rapporti annuali più recenti pubblicati da alcune delle società ed istituzioni da carità, da benevolenza ossia volontarie della Gran Bretagna e Irlanda; fatta dietro ea richiesta della Commissione Imperiale (vedasi anche Gruppo II. Classe 6)

CLASS XC.

Libraries and Apparatus used in the Instruction of Adults, at Home, in the Workshop, or in Schools and Colleges.

Bibliothèques et Matériel de l'Enseignement donné aux Adultes dans la Famille, l'Atelier, la Commune ou la Corporation.

Bibliotheken und Apparate für den Unterricht der Erwachsenen zu Hause, in der Werkstatt oder in den Schulen und Collegien.

Biblioteca ed Apparati usati nell'Istruzione degli Adulti, a Domicilio, nell' Officina, o nelle Scuole e Collegi.

(For detailed classification, see p. xxix.)

(*Voir de système de classification, p. xxix.*)

(Für detaillirte Classification, siehe Seite xxix.)

(*Vedasi il sistema di classificazione, p. xxix.*)

COMMITTEE—COMITÉ AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Earl of Rosse, K.P.

Earl Russell, K.G.

Lord Robert Montagu, M.P.

Lord Stanley, M.P.

Lord Houghton

Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.

Right Hon. W. F. Cowper, M.P.

Right Hon. Robert Lowe, M.P.

Right Hon. C. B. Adderley, M.P.

Right Hon. H. A. Bruce, M.P.

Sir J. P. Kay Shuttleworth, Bart.

Sir Rowland Hill, K.C.B.

Sir Francis R. Sandford

Edgar A. Bowring, Esq. C.B.

George T. Clark, Esq.

Rev. B. M. Cowie, B.D.

Professor Fawcett, M.P.

Thomas D. Galpin, Esq.

Thomas Field Gibson, Esq.

William Hawes, Esq.

Thomas Hughes, Esq. M.P.

Rev. Charles Kingsley

Rev. F. D. Maurice

J. MacGregor, Esq.

Samuel Smiles, Esq.

William H. Smith, Esq.

Rev. J. G. Wood.

Dr. Appell, Secretary.

JUROR—MEMBRE DU JURY PREISRICHTER—GIURATO.

Rev. W. Rogers, M.A.

ASSOCIATE—ASSOCIO.

HÜLFSPREISRICHTER—ASSOCIATO.

Rev. M. Mitchell, M.A.

NOTE.—Names marked with an asterisk are those of persons who do not exhibit in this class.

1 *MURRAY, ANDREW, F.L.S., 67 Bedford-gardens, Kensington, London

The geographical distribution of mammals

La distribution géographique des mammifères

Die geographische Vertheilung der Mammalien

Distribuzione geografica dei mammiferi

CLASS XCI.

Furniture, Clothing, and Food from all sources, remarkable for useful qualities combined with cheapness.

Meubles, Vêtements et Aliments de toute origine, distingués par les qualités utiles, unies au bon marché.

Möbel, Kleidung und Nahrung aller Art, bemerkenswerth wegen ihrer Nützlichkeit und Wohlfeilheit.

Mobilia, Vesti, e Cibi, di qualsiasi derivazione, notabili per utili qualità combinate all' economia.

(For detailed classification, see p. xxix.)

(*Voir de système de classification, p. xxix.*)

(Für detaillirte Classification, siehe Seite xxix.)

(*Vedasi il sistema di classificazione, p. xxix.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Marquess Townshend.
Marquess of Salisbury, K.G.
Earl of Rosse, K.P.
Earl Russell, K.G.
Lord Stanley, M.P.
Lord Houghton
Rt. Hon. Sir Stafford H. Northcote, Bart. C.B. M.P.
Right Hon. W. F. Cowper, M.P.
Right Hon. Robert Lowe, M.P.
Right Hon. C. B. Adderley, M.P.
Right Hon. H. A. Bruce, M.P.
Sir Francis R. Sandford
Edwin Chadwick, Esq. C.B.
Edgar A. Bowring, Esq. C.B.
Charles S. Butler, Esq. M.P.
Charles Buxton, Esq. M.P.
Harry Chester, Esq.
George T. Clark, Esq.
Thomas Field Gibson, Esq.
William Hawes, Esq.
Frederick Hill, Esq.
Benjamin Shaw, Esq.
Dr. Edward Smith
T. Twining, Esq.

P. Le Neve Foster, Esq. *Secretary.*

JUROR—MEMBRE DU JURY
PREISRICHTER—GIURATO.

Viscount Canterbury.

ASSOCIATE—ASSOCIO.
HÜLFSPREISRICHTER—ASSOCIATO.

Nassau J. Senior, Esq.

4 THE NATIONAL ASYLUM FOR IDIOTS, Earlswood, Red Hill, Surrey
Drawings, boots and shoes, tailoring, needle-work, models, basket-work, &c.
Dessins, chaussures, vêtements, ouvrages à l'aiguille, modèles, objets divers de vannerie, etc.
Zeichnungen, Stiefeln und Schuhe, Schneider- und Nadelarbeit, Modelle, Körbchen etc.
Disegni, stivali e scarpe, sartoria, cucito, modelli, panieri, ecc.

5 SILVER, S. W., & Co., Cornhill, and Bishopsgate, London
Clothing and furniture for economic purposes
Vêtements et meubles recommandés au point de vue d'une bonne économie domestique
Wohlfeile Kleider und Möbel
Vesti e mobilia, economia

6 THE SOCIETY FOR PROMOTING FEMALE EDUCATION IN THE EAST, 267 Vauxhall-bridge-road, London
Needle-work, writing, costumes, &c.
Ouvrages à l'aiguille, spécimens d'écriture, costumes, etc.
Nadelarbeit, Handschriften, Anzüge etc.
Cucito, scritto, abbigliamenti, ecc.

7 TAYLER, HARRY, & Co., 42 St. Paul's Church-yard, London
Knife-boards
Planches à couteaux
Messerbretter
Tavolette da coltelli

2 KNIGHT, MARY, 1 Anderson-street, Chelsea, London

Dresser-bedstead

Table de cuisine pouvant servir de lit

Betttisch

Credenza-lettiera

CLASS XCIII.

Examples of Dwellings characterised by cheapness combined with the conditions necessary for Health and Comfort.

Spécimens d'Habitations caractérisées par le bon marché uni aux conditions d'hygiène et de bien-être.

Muster von Gebäuden, ausgezeichnet durch ihre Wohlfeilheit, verbunden mit den nothwendigen Bedingungen für Gesundheit und Bequemlichkeit.

Esemplari di Abitazioni notevoli per economia combinata alle Condizioni necessarie alla sanità ed al Benessere.

(For detailed classification, see p. xxix.)

(*Voir le système de classification, p. xxix.*)

(Für detaillierte Classification, siehe Seite xxix.)

(*Vedasi il sistema di classificazione, p. xxix.*)

COMMITTEE—COMITÉ
AUSSCHUSS—COMITATO.

Marquess of Salisbury, K.G.

Earl of Rosse, K.P.

Earl Russell, K.G.

Lord Stanley, M.P.

Lord Blandford

Lord Houghton

Lord Penrhyn

Right Hon. Sir Stafford H. Northcote, Bart.

C.B. M.P.

Right Hon. W. F. Cowper, M.P.

Right Hon. Robert Lowe, M.P.

Right Hon. C. B. Adderley, M.P.

Right Hon. H. A. Bruce, M.P.

Sir John Stuart Forbes, Bart.

Sir Francis R. Sandford

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Edgar A. Bowring, Esq. C.B.

Thomas Beggs, Esq.

George T. Clark, Esq.

J. Bailey Denton, Esq.

C. J. Freake, Esq.

Charles Gatiliff, Esq.

Thomas Field Gibson, Esq.

George Godwin, Esq.

William Hawes, Esq.

Titus Salt, Esq.

W. McCullagh Torrens, Esq. M.P.

Mr. Alderman Waterlow

Major Malcolm, R.E. *Secretary.*

JURORS—MEMBRES DU JURY
PREISRICHTER—GIURATI.

(No Juror allowed.)

(*Point de Juré nommé.*)

(Kein Preisrichter ernannt.)

(*Nessun Giurato nominato.*)

1 DIGBY, LORD, 39 Belgrave-square, London

Models of labourers' cottages

Modèles d'habitations rurales

Modelle von Arbeiterwohnungen

Modelli di capanne da contadino

2 IMPROVED INDUSTRIAL DWELLINGS COMPANY,
Carpenters' Hall, London Wall, London
Models and plans of improved dwellings for the industrial classes

Modèles et plans d'habitations améliorées propres aux diverses classes ouvrières

Modelle und Entwürfe für verbesserte Wohnungen der industriellen Classe

Modelli e piante di abitazioni perfezionate felle classi industriali

3 METROPOLITAN ASSOCIATION FOR IMPROVING THE DWELLINGS OF THE INDUSTRIAL CLASSES, 19 Coleman-street, London

Models of dwellings

Modèles d'habitations

Modelle von Wohnungen

Modelli di abitazioni

4 SALT, TITUS, & Co., Saltaire, Bradford, Yorkshire

Drawings of their Manufactory, and of the town of Saltaire

Dessins de leur Fabrique, et de la ville de Saltaire

Zeichnungen ihrer Fabrik und der Stadt Saltaire

Disegni della loro Magona e della villa di Saltaire

5 SOCIETY FOR IMPROVING THE CONDITION OF THE LABOURING CLASSES, 21 Exeter Hall, London.

Drawings of model lodging houses, and renovated dwellings

Dessins d'habitations modèles pour les ouvriers, et habitations rétablies

Zeichnungen von Mustern für Logirhäuser und von wiederhergestellten Gebäuden

Disegni e modelli di alloggi, e abitazioni rinnovate

BRITISH COLONIES AND DEPENDENCIES.

BAHAMAS.

GROUP III.—CLASS XV.

Upholstery and Decorative Work.
Ouvrages de Tapissier et de Décorateur.
 Tapezier- und Decorateur-Arbeit.
Tappezzerie e Lavori decorativi.

(For detailed classification, see p. xvi.)
 (Voir le système de classification, p. xvi.)
 (Für detaillirte Classification, siehe Seite xvi.)
 (Vedasi il sistema di classificazione, p. xvi.)

Shellwork, ornamental centrepiece, baskets, flowers, sprigs, &c.

Coquillages, surtout, paniers, fleurs, brindelles, etc.

Arbeit aus Muscheln, Verzierung, Körbe, Blumen, Zweige etc.

Lavori in tartaruga, trofeo d' ornamento per centro, panieri, fiori, frascchette, ecc.

GROUP IV.—CLASS XXXIV.

Hosiery and Under Clothing, and Articles appertaining thereto.

Articles de Bonneterie et de Lingerie; Objets accessoires du Vêtement.

Strumpfwaaren und Unterkleider und Gegenstände, die dazu gehören.

Calzetteria e Biancheria e Oggetti che vi hanno relazione.

(For detailed classification, see p. xix.)
 (Voir le système de classification, p. xix.)
 (Für detaillirte Classification, siehe Seite xix.)
 (Vedasi il sistema di classificazione, p. xix.)

Walking sticks made of the woods of the colony

Cannes faites des divers bois de la colonie

Spazierstöcke aus einheimischem Holze

Mazze fatte dei legni della colonia

GROUP V.—CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der dazu gehörigen Gewerbe.

Prodotti della Coltura delle Foreste e delle industrie che vi hanno Relazione.

(For detailed classification, see p. xx.)
 (Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)
 (Vedasi il sistema di classificazione, p. xx.)

Specimens of the woods of the colony for cabinet work, building and dyeing purposes, viz. :—

Yellow and satin wood, crab wood, iron wood, brazilletto, Madeira, Bahama or horse-flesh mahogany, green ebony, naked wood, cedar, lignum vitæ and pine. Barks, cascarilla and canella alba, rosin and turpentine and palmetto work

Echantillons des divers bois de la colonie employés pour l'ébénisterie, pour les constructions, pour la teinture :—

Bois jaune, bois satiné, bois de fer, bois de crabe, brazilletto, acajou de Madère, de Bahamas, etc.; ébène verte, cèdre, bois de gaiac, bois de sapin, etc. Écorces, cascarilla et canella alba, résine et térébenthine, et objets de palmier nain

Exemplare der Hölzer der Colonie für Tischlerarbeit, zum Bauen und Färben, nämlich :—

Gelb- und Atlassholz, Crab- und Eisenholz, Brazilletto, Madeira-, Bahama- oder Pferdefleisch - Mahagoniholz, grünes Ebenholz, nacktes Holz, Ceder, Lignum vitæ und Fichtenholz. Rinden, Cascarilla und Canella alba, Harz und Terpentin und Gegenstände aus Pflaumpalmenholz

Saggi dei legni della colonia per lavoro di stipettaio da costruzione e per usi di tintura, cioè :—

Legno giallo e satinato, sorbo, legno ferro, angeliche, Madera, legno Bahama o Maogano, detto carne di cavallo; ebano verde, legno nudo, cedro, lignum vitæ, e pino. China, cascarilla e cannella alba, resina e trementina, e lavori di palma nana

CLASS XLII.

Products of Shooting, Fishing, and of the Earth, obtained without cultivation.

Produits de la Chasse, de la Pêche, et des Cueillettes.

Producte der Jagd, des Fischfangs und der Erde, welche ohne Cultur erlangt Werden.

Prodotti della Caccia, della Pesca, e della Terra ottenuti senza Cultura.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

Sponges of various kinds and qualities, conch pearls, tortoise shell, ambergris, coral, black helmet shells for cameo cutting, fancy shells used for shell-work, &c., myrtle wax

Éponges de diverses espèces et de diverses qualités, perles en coquilles, écaille de tortue, ambre gris, corail, coquilles noires à camées, coquillages pour ouvrages de fantaisie, etc., cire de myrte.

Schwämme von verschiedener Art und Güte, Seemuschelperlen, Schildpatt, Ambra, Corallen, schwarzgehelimte Muscheln für Cameos, Muscheln gebraucht für geschmackvolle Muschelarbeit und Myrthenwachs

Spugne di varie specie e qualità, madreperla, tartaruga, ambra grigia, corallo, conchiglie a elmo nere per incisioni di cammei, conchiglie di lusso usate per lavori di conchiglie, ecc., cera di mirto

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile conservation.

Leicht conservirbare Agricultur-Producte (nicht zur Nahrung gebraucht).

Prodotti d'Agricoltura (non usati per Cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

Raw cotton, fibre of the pita plant, pine apple leaf, and native forest pine, with specimens of cordage made from same

Coton brut, fibres de la pita, de feuilles d'ananas, et de sapin de la colonie, avec échantillons des cordages faites de ces fibres

Rohe Baumwolle, Fasern der Pitapflanze, Ananasblätter und Muster von daraus verfertigten Tauen

Cotone greggio, fibra della pianta pita, foglia di ananasso, e di pino di foresta indigena, con saggi di cordami fatti delle medesime

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.
Chemische und pharmaceutische Producte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

Salt, coarse and blown, produced from sea water by solar evaporation

Sel commun etc., extrait de l'eau de mer par évaporation solaire

Salz, roh und raffinirt, aus von der Sonne verdunsteten Seesalz

Sale greggio e raffinato prodotto dall'acqua di mare pell' evaporazione del sole

GROUP VII.—CLASS LXVII.

Cereals and other Farinaceous Products, and the products derived from them.

Céréales et autres Produits Farineux
Comestibles, avec leurs dérivés.

Getreide und andere mehligte Producte, und deren Educte.

Prodotti Cereali e Farinacei e loro Dérivati.

(For detailed classification see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

Arrowroot and cassava

Arrow-root et cassaves

Arrowroot and Cassava (Maniokbrot)

Arrorut e cassava

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Zuckerbäckerwaaren.

Condimenti e Stimolanti; Zucchero e Confettura.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

Table-salt, jellies and preserves, dried and preserved fruit

Sel de table, gelées et confitures, fruits confits et conservés

Tafelsalz, Gelée und Eingemachtes, getrocknete und conservirte Früchte

Sale da tavola, siroppi e conserve, frutta secche e conservate

BARBADOS.

GROUP II.—CLASS XXVI.

Leather Work, Fancy Articles, and
Basket Work.

*Objets de Maroquinerie, de Tabletterie
et de Vannerie.*

Lederwaaren, Modeartikel, und Korb-
macherwaaren.

*Lavori in Pelle, Oggetti di Lusso, e La-
vori in Vimini.*

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 THORNE, BENJAMIN

Model of pulpit, carved in wood

Modèle de chaire, en bois sculpté

Modell einer Kanzel, in Holz geschnitten

Modello di pulpito intagliato in legno

GROUP V.—CLASS XL.

Mining and Metallurgy.

*Produits de l'Exploitation des Mines et
de la Métallurgie.*

Berg- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 GODING, F. M. D.

Manjack, bituminous product of Barbados

Manjack, produit bitumineux de Barbades

Manjack, ein bituminöses Product von
Barbados

Manjack, prodotto bituminoso di Barbadoes

2 WALROND, BENJAMIN

Green tar or petroleum of Barbados

Goudron vert, ou pétrole de Barbades

Grüner Theer oder Petroleum von Barbados

Catrame verde, o petroleo di Barbadoes

3 COOPER, JOSEPH

Oils distilled from petroleum

Huiles provenant de la distillation du pétrole

Oele, destillirt von Petroleum

Oli distillati dal petrolo

CLASS XLII.

Products of Shooting, Fishing, &c.

Produits de la Chasse, de la Pêche, etc.

Producte der Jagd, des Fischfangs
etc.

Prodotti della Caccia, della Pesca, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 BRIGGS, HON. T. GRAHAM

Cabinet of corals

Collection de corails

Eine Corallen-Sammlung

Stipo di coralli

GROUP VII.—CLASS LXVII.

Cereals and other Eatable Farinaceous
Products, and the Products derived
from them.

*Céréales et autres Produits Farineux
Comestibles, avec leurs Dérivés.*

Getreide und andere essbare mehliges
Producte, und deren Educte.

*Cereali ed altri Comestibili Farinacei, e
Prodotti che ne derivano.*

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 GRIFFITH, W. BRANDFORD

Arrowroot

Arrowroot

Arrowroot

Arrorut

2 McCLEAN, MRS. W. T.

Arrowroot

Arrowroot

Arrowroot

Arrorut

3 BARBADOS, COLONY OF

Various native products, aloes, sugar, esculent
roots, &c.

*Produits divers indigènes, aloès, sucres, racines
alimentaires, etc.*

Verschiedene einheimische Producte, Aloe,
Zucker, nahrhafte Wurzeln etc.

*Vari prodotti indigeni, aloe, zucchero, radici
esculenti, ecc.*

GROUP IX.—CLASS LXXXIII.

Horticulture.

Matériel de l'Horticulture.

Gartenwirthschaft.

Orticultura.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

1 STRAGHAN, MRS.

Barbados seeds

Graines de Barbades

Samen von Barbados

Semi di Barbadoes

CANADA.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 PLAMONDON, ANTOINE, Pointe aux Trembles
 Genre picture
Tableau de genre
 Genrebild
Quadro di genere
- 2 HAMEL, THÉOPHILE, Quebec
 A Madonna; St. Genevieve; study of heads,
 and two portraits
Une Madone; Ste.-Généviève; étude de têtes, et
deux portraits
 Eine Madonna, die heilige Genoveva; Studien-
 zeichnungen von Köpfen und zwei Portraits
Madonna; Sta. Genoveffa; studio di teste, e
due ritratti
- 3 KREIGHOFF, J., Quebec
 Forest scenes
Scènes des forêts
 Waldscenen
Scena di foreste

CLASS II.

Water-colour Paintings and Drawings.
Peintures Diverses et Dessins.
 Wasserfarben-Gemälde und Zeich-
 nungen.
Acquerelli e Disegni.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 BOURASSA, NAPOLÉON, Montreal
 Two cartoons representing the Apotheosis of
 Christopher Columbus
Apothéose de Christophe Colombe, deux cartons
 Die Vergötterung des Christoph Columbus, in
 zwei Blättern
Due cartoni rappresentanti l'Apoteosi di
Cristoforo Colombo
- 2 TACHÉ, EUGÈNE, Montmagny
 Drawings, pen sketches of Canadian subjects
Dessins, compositions à la plume, sujets cana-
diens
 Zeichnungen, Federskizzen von Canadischen
 Gegenständen
Disegni, schizzi in penna di soggetti canadiansi

CLASS III.

Sculpture and Die-sinking.
Sculptures et Gravures sur Médailles.
 Sculptur und Stempelschneider
Scultura ed Incisione a Conio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 REID, ROBERT, Montreal
 Bas-reliefs, the four seasons, medallions
Les quatre saisons, bas-reliefs, médaillons
 Bas-reliefs, die vier Jahreszeiten, Medaillons
Bassorilievi, le quattro stagioni, medagioni

CLASS V.

Engraving and Lithography.
Gravures et Lithographies.
 Gravirung und Lithographie
Incisione e Litografia.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 BURLAND & L'AFRICAIN, Montreal
 Lithographs and engravings
Epreuves de lithographies et de gravures
 Lithographien und Gravirungen
Litografia e incisioni

GROUP II.—CLASS VI.

Printing and Books.
Produits d'Imprimerie et de Librairie.
 Buckdruck und Bücher.
Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 DÉPARTEMENT DE L'AGRICULTURE, DES ARTS,
 ET DE LA STATISTIQUE, Outaouais
 Periodical publications and works
Collection d'ouvrages et de publications pé-
riodiques
 Periodische Publicationen und Werke
Publicazioni ed opere periodiche
- 2 BROWN, HON. GEORGE, Toronto
 Specimens of typography
Epreuves de typographie
 Typographische Proben
Saggi di tipografia
- 3 DESBARATZ, GEORGE, Quebec and Outaouais
 Specimens of typography
Epreuves de typographie
 Typographische Proben
Saggi di tipografia

4 BROUSSEAU, L., Quebec
Specimens of typography
Épreuves de typographie
Typographische Proben
Saggi di tipografia

5 SÉNÉCAL, EUSÈBE, Montreal
Specimens of typography
Épreuves de typographie
Typographische Proben
Saggi di tipografia

6 STARKE, J., & CIE., Montreal
Specimens of typography
Épreuves de typographie
Typographische Proben
Saggi di tipografia

CLASS VII.

Paper, Stationery; Binding; Painting
and Drawing Materials.

*Objets de Papeterie; Reliures; Matériel
des Arts de la Peinture et du Dessin.*

Papier, Papierwaaren; Buchbinderei;
Materialien zum Malen und Zeichnen.

*Carta, Cartoleria; Religature; Materiali
per Dipingere e Disegnare.*

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 LAFRANCE & LEMIEUX, Quebec
Fancy and common bookbinding
Reliures de luxe et reliures ordinaires
Geschmackvolle und gewöhnliche Einbände
Rilegature di lusso e comuni

2 DESBARATZ, G. E., Quebec and Outaouais
Fancy and common bookbinding
Reliures de luxe et reliures ordinaires
Geschmackvolle und gewöhnliche Einbände
Rilegature di lusso e comuni

3 BROWN & FRÈRES, Toronto
Binding and account books
Reliures et livres de comptes
Einbände und Contobücher
Rilegature e libri da conti

4 BUNTIN, ALEXANDRE, & CIE., Montreal
Paper and envelopes
Papiers et enveloppes
Papier und Briefcouverte
Carta e buste

5 BROUSSEAU, LÉGER, Quebec
Common bookbinding
Reliures ordinaires
Gewöhnliche Einbände
Rilegature comuni

6 BOISSONNAULT, N. F., Québec
Registering box for post-offices
Boîte-indicateur pour les bureaux de poste
Registrierender Briefkasten für Postämter
Cassetta-registro pell' Ufficio di Posta

CLASS VIII.

Applications of Drawing and Modelling
to the Common Arts.

*Applications du Dessin et de la Plastique
aux Arts Usuels.*

Anwendungen des Zeichnens und Mo-
dellirens auf die gewöhnlichen
Künste.

*Applicazioni del Disegno e Modellare
alle Arti Comuni.*

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 MURPHY, J., Montreal
Decorative painting
Peintures en décors
Decorations-Malerei
Pittura decorativa

CLASS IX.

Photographic Proofs and Apparatus.
Épreuves et Appareils de Photographie.
Photographische Proben und Ap-
parate.

Prove e Apparatî Fotografici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 BUREAU DES TRAVAUX PUBLICS, Ottawa
Collection of photographs
Collection de photographies
Sammlung von Photographien
Collezione di fotografie

2 LEGGO & DESBARATZ, Quebec
Photographic stereotypes and heliographic
engravings
*Clichés photographiques et gravures héliogra-
phiques*
Photographische Stereotypen und heliogra-
phische Gravirungen
Stereotipi fotografie e incisioni eliografiche

3 NOTMAN, WILLIAM, Montreal
Photographs—*Photographies*
Photographien—*Fotografie*

4 LIVERNOIS & CIE., Quebec
Historical photographs
Épreuves photographiques appliquées à l'histoire
Geschichtliche Photographien
Fotografie istoriche

5 HOLLINGWORTH, J., Toronto
Photographs—*Épreuves photographiques*
Photographien—*Fotografie*

6 HENDERSON, ALEXANDER, Montreal
Photographs—*Épreuves photographiques*
Photographien—*Fotografie*

- 7 ELLISON & CIE., Quebec
Photographs—*Épreuves photographiques*
Photographien—*Fotografie*
- 8 SMEATON, J., Quebec
Photographs—*Épreuves photographiques*
Photographien—*Fotografie*

CLASS XI.

Medical and Surgical Instruments and Apparatus.

Appareils et Instruments de l'Art Médical.

Medicinische und chirurgische Instrumente und Apparate.

Strumenti ed Apparati Medici e Chirurgici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

- 1 LARICHELIERE, DESIRÉ, Laprairie
Trusses and other surgical appliances
Bandages et autres appareils de chirurgie
Bandagen und andere chirurgische Vorrichtungen
Cinti ed altri oggetti chirurgici
- 2 JONES, T. J., Bowmanville
Dentists' instruments
Appareils à l'usage des dentistes
Zahnärztliche Instrumente
Strumenti odontalgici
- 3 GROSS, F., Montreal
Trusses and other surgical appliances
Bandages et autres appareils de chirurgie
Bandagen und andere chirurgische Vorrichtungen
Cinti ed altri oggetti chirurgici

CLASS XII.

Mathematical Instruments and Apparatus for Teaching Science.

Strumenti de Précision et Matériel de l'Enseignement des Sciences.

Mathematische Instrumente und Apparate für den wissenschaftlichen Unterricht.

Strumenti Matematici ed Apparati per Insegnamento Scientifico.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

- 1 DÉPARTEMENT DE L'INSTRUCTION PUBLIQUE
DU HAUT ET DU BAS CANADA, Toronto and Montreal
Apparatus for teaching science
Objets destinés à l'enseignement des sciences

Apparat für den wissenschaftlichen Unterricht

Apparati d'insegnamento scientifico

- 2 CHAMBRE DES ARTS ET MANUFACTURES DU
HAUT CANADA, Toronto
Stuffed birds for the study of natural history
Oiseaux empaillés pour l'étude
Ausgestopfte Vögel zum Studium der Naturgeschichte
Uccelli impagliati pello studio della storia naturale
- 3 BETHUNE, REV. C. J. S., Cobourg
Collection of insects—*Collection d'insectes*
Insectensammlung—*Collezione di insetti*
- 4 PASSMORE, F. F., Toronto
Collection of fish—*Collection de poissons*
Fischssammlung—*Collezione di pesci*
- 5 POTTER, CHARLES, Toronto
Theodolite, compass, and other philosophical instruments
Théodolite, compas, et autres instruments de précision
Theodolit, Compass und andere philosophische Instrumente
Teodolite, bussola, ed altri strumenti di fisica

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

Cartes et Appareils de Géographie et de Cosmographie.

Karten und geographische und cosmographische Apparate.

Carte e Apparati Geografici e Cosmografici.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

- 1 DÉPARTEMENT DES TERRES DE LA COURONNE,
Outaouais
Sectional maps of the government lands of Canada
Cartes par sections du domaine public en Canada
Sectionskarte der Regierungs-Ländereien von Canada
Mappe sezionali delle terre del Governo nel Canada
- 2 COMMISSION GÉOLOGIQUE DU CANADA, Montreal
Maps, reports, and publications
Cartes, rapports, et publications
Karten, Berichte und Publicationen
Mappe, rapporti, e pubblicazioni
- 3 ÉCOLE D'AGRICULTURE DE STE. ANNE, Ste. Anne
Plan in relief, atlas; maps and plans of public buildings
Plan-relief, atlas; cartes et plans d'édifices
Reliefkarte, Atlas; Karten und Pläne öffentlicher Gebäude
Pianta in rilievo, atlante; mappe e piante di edifiz pubblici

- 4 BOUCHETTE, JOSEPH, Outaouais
General map of Canada
Carte générale du Canada
Generalkarte von Canada
Mappa generale del Canada
- 5 KING, T. D., Montreal
Diagram of thermometric observations in
1859 and 1866
Diagramme d'observations thermométriques en
1859 & 1866
Diagramm von thermometrischen Beobach-
tungen in 1859 und 1866
Diagramma di osservazioni termometriche nel
1859 e 1866
- 6 BROWN, G., Toronto
Map of Toronto
Carte de la ville de Toronto
Karte von Toronto
Mappa di Toronto
- 7 TACKERBURY, E. C., London, Haut Canada
Map of Upper Canada
Carte du Haut Canada
Karte von Obercanada
Mappa di Canada superiore

GROUP III.—CLASS XIV.

Fancy Furniture.
Meubles de Luxe.
Luxusmöbel.
Mobilia di Lusso.

(For detailed classification, see p. xvi.)
(*Voir le système de classification, p. xvi.*)
(Für detaillirte Classification, siehe Seite xvi.)
(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 JACQUES & HAY, Toronto
Fancy furniture—*Meubles de luxe*
Luxusmöbel—*Mobilia di lusso*
- 2 FRÉCHETTE, ANTOINE, Outaouais
Small bookstand for writing table
Petite bibliothèque de bureau
Kleines Büchergestell für den Schreibtisch
Scaffaletto da libri per scrivania
- 3 HILTON, J. & W., Montreal
Fancy furniture—*Meubles de luxe*
Luxusmöbel—*Mobilia di lusso*
- 4 REED, JAMES, Hamilton
Bedroom furniture
Ameublement de chambre à coucher
Möbel für das Schlafzimmer
Mobilia per camera da letto
- 5 ROY & BÉDARD, Quebec
Maple what-not inlaid with various woods
Étagère d'érable incrustée de divers bois
Ahorn-Etagère, eingelegt mit verschiedenen
Holzarten
Mobile in acero intarsiato con legni vari

- 6 BROUSSEAU, J. T., Quebec
New style of sofa
Canapé (nouveau genre)
Sofa (eine neue Form)
Nuovo stile di sofà

CLASS XV.

Upholstery and Decorative Work.
Ouvrages de Tapissier et de Décorateur.
Tapezirer- und Decorateur-Arbeit.
Tappezzeria e Lavori Decorativi.

(For detailed classification, see p. xvi.)
(*Voir le système de classification, p. xvi.*)
(Für detaillirte Classification, siehe Seite xvi.)
(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 CLIFFORD, MADAME, Outaouais
Embossed leather frame
Cadre de cuir gaufré
Lederrahmen in erhabener Arbeit
Cornice in cuoio a rilievo
- 2 DESMARAIS & CIE., Montreal
Frame for portraits, cartes de visite
Cadre pour portraits, cartes de visites
Rahmen für Portraits, Visitenkarten (Photo-
graphien)
Cornice per ritratti, carte da visita
- 3 SCOTT, WILLIAM, Montreal
Picture frames—*Cadres pour tableaux*
Bilderrahmen—*Cornici da quadri*

CLASS XVI.

Crystal, Fancy Glass and Stained
Glass.
Cristaux, Verrerie de Luxe et Vitraux.
Crystall-, Luxus- und buntes Glas.
Cristallo, Cristalli di Lusso, e Vetri
Colorati.

(For detailed classification, see p. xvi.)
(*Voir le système de classification, p. xvi.*)
(Für detaillirte Classification, siehe Seite xvi.)
(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 SPENCE, J. C., Montreal
Stained glass windows
Vitraux peints
Fenster von buntem glas
Finestre di vetri colorati
- 2 GLASS COMPANY, Hudson (Vaudreuil)
Glass—*Verreries*
Glas—*Cristallame*

CLASS XVII.

Earthenware and other Fancy Pottery.
Faïences et autres Poteries de Luxe.
Irdenes Geschirr und andere Luxus-
töpferwaren.
Terraglie ed altri Vasellami di Lusso.

(For detailed classification, see p. xvi.)
(*Voir le système de classification, p. xvi.*)
(Für detaillirte Classification, siehe Seite xvi.)
(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 HURD & LEIGH, Toronto
Earthenware—*Faïences*
Irdenes Geschirr—*Terraglie*
- 2 FARRAR, J. W., St. Jean
Stoneware—*Poteries de grès*
Steingut—*Vasellami in terra grès*

CLASS XVIII.

Carpets, Tapestry, and other Stuffs for Furniture.

Tapis, Tapisseries et autres Tissus d'Ameublement.

Teppiche, Tapisserie und andere Zeuge für Möbel.

Tappeti, Tappezzerie, ed altre Stoffe per Mobilia.

(For detailed classification, see p. xvi.)

(*Voir le système de classification*, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(*Vedasi il sistema di classificazione*, p. xvi.)

1 BAZIN, DILES., Rivière-du-Loup
Carpet embroidered with elk's hair
Tapis brodé en poil d'original
Teppich, gestickt mit Elennthierhaar
Tappeto ricamato con pelo d' alce

2 CARON, DILE., Rivière-du-Loup
Carpet embroidered with elk's hair
Tapis brodé en poil d'original
Teppich, gestickt mit Elennthierhaar
Tappeto ricamato con pelo d' alce

3 CORÉ, O., Quebec
Bedside carpets
Descentes de lit
Fussteppiche vor die Betten
Tappetini d' accanto al letto

CLASS XIX.

Paperhangings.

Papiers Peints.

Tapeten.

Carte da Parati.

(For detailed classification, see p. xvii.)

(*Voir le système de classification*, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione*, p. xvii.)

1 STAUNTON, MOSES, Toronto
Specimens of paperhanging
Echantillons de papiers de tenture
Muster von Tapeten
Campioni di carte da parati

CLASS XXIV.

Apparatus and Processes for Heating and Lighting.

Appareils et Procédés de Chauffage et d'Éclairage.

Apparate und Processe zum Heizen und Erleuchten.

Apparati e Processi di Calefazione e Illuminazione.

(For detailed classification, see p. xvii.)

(*Voir le système de classification*, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione*, p. xvii.)

1 ARMSTRONG, J. R., & CIE., Toronto
Kitchen stove and fittings
Poêle de cuisine avec ses accessoires
Kochofen und Zubehör
Focolare da cucina e attrazzi

2 RODDEN, W., & CIE., Montreal
Kitchen stove and hall stove
Poêle de cuisine et poêle de vestibule
Kochofen und Ofen für die Vorhalle
Focolare da cucina, e stufa da stanza d'ingresso

3 CEREDO, PAUL, Montreal
Coal-scuttle—*Porte-charbon*
Kohlenkorb (Schütte)—*Carboniera*

CLASS XXV.

Perfumery.

Parfumerie.

Parfümerien.

Profumeria.

(For detailed classification, see p. xvii.)

(*Voir le système de classification*, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione*, p. xvii.)

1 HEARB, J. G., Montreal
Fancy soap—*Savons de toilette*
Toilettenseif—*Sapone di lusso*

CLASS XXVI.

Leather Work, Fancy Articles and Basket Work.

Objets de Maroquinerie, de Tabletterie et de Vannerie.

Lederwaaren, Modeartikel, und Korbmacherarbeit.

Lavori in Pelle, Oggetti di Lusso e Lavori di Vimini.

(For detailed classification, see p. xvii.)

(*Voir le système de classification*, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione*, p. xvii.)

1 AUGER, MME., Rivière-du-Loup
Fancy articles made of elk's hair
Objets de fantaisie en poil d'original
Modeartikel aus Elennthierhaar
Oggetti di lusso fatti di pelo d' alce

2 GRENIER, MME., Rivière-du-Loup
Fancy articles made of elk's hair
Objets de fantaisie en poil d'original
Modeartikel aus Elennthierhaar
Oggetti di lusso fatti di pelo d' alce

3 MÉTHOT, MME., Rivière-du-Loup
Fancy articles made of elk's hair
Objets de fantaisie en poil d'original
Modeartikel aus Elennthierhaar
Oggetti di lusso fatti di pelo d' alce

4 VADEBONCEUR, MME., Rivière-du-Loup
Fancy articles made of elk's hair
Objets de fantaisie en poil d'original
Modeartikel aus Elennthierhaar
Oggetti di lusso fatti di pelo d' alce

- 5 CARON, M^{LLE.}, Rivière-du-Loup
Embroidery with elk's hair
Objets brodés en poil d'original
Stickerei mit Elennthierhaar
Ricami in pelo d' alce
- 6 BAZIN, M^{LLES.}, Rivière-du-Loup
Fancy articles made of elk's hair
Objets de fantaisie en poil d'original
Modeartikel aus Elennthierhaar
Oggetti di lusso fatti di pelo d' alce
- 7 BERNARD, M^{LLE.} AGNÈS, Trois-Rivières
Fancy articles made of embroidered bark
Objets de fantaisie d'écorce brodée
Modeartikel aus gestickter Rinde
Oggetti di lusso fatti di scorza ricamata
- 8 MALÉCHITE, MARIE, Île Verte
Fancy baskets
Corbeilles et paniers de fantaisie
Luxuskörbchen
Panieri di lusso
- 9 KANOUAKERI, MARGUERITE, Kaughnaouaga
Fancy articles
Objets de fantaisie
Modeartikel
Oggetti di lusso
- 10 SAMSOUK, MICMAC, Ristigouche
Fancy articles embroidered with porcupine
bristles
Objets de fantaisie brodées en poil de porc-épic
Modeartikel, gestickt mit den Borsten des
Stachelschweines
Oggetti di lusso ricamati penna d' istrice
- 11 TAHOURHENCHÉ, PAUL, Lorette
Fancy articles
Objets de fantaisie
Modeartikel
Oggetti di lusso
- 12 BOYD, JOHN, Montreal
Brushes—*Objets de brosse*
Bürsten—*Spazzole*
- 13 HENDERSON & SON, Montreal
Collection of pipes
Collection de pipes
Sammlung von Pfeifen
Collezione di pipe
- 14 JENKIN, THOMAS, Montreal
Brushes—*Objets de brosse*
Bürsten—*Spazzole*
- 15 LAVIOLETTE & GERALDI, Montreal
Flower baskets
Corbeilles de fleurs
Blumenkörbchen
Panieri da fiori
- 16 DE GUISE, AUGUSTE, Outaouais
Casket of sumach wood
Coffre en bois de sumac
Schmuckkästchen von Sumachholz
Scrigno di legno sommacco

GROUP IV.—CLASS XXVII.

Cotton Yarn and Fabrics.

Fils et Tissus de Coton.

Baumwollengarn und Gewebe.

Filo Scempio e Tessuti di Cotone.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

- 1 GORDON & McKAY, Toronto
White and unbleached cotton fabrics
Cotons blancs et écrus
Weisse und ungebleichte Baumwollenzeuge
Tessuti di cotone imbiancati e greggi
- 2 WOOD, PETER, Montreal
Specimens of cotton
Échantillons de cotons
Proben von Baumwolle
Campioni di cotone
- 3 WRIGHT, JOSEPH, Dundas
Unbleached and twilled cotton fabrics
Cotons écrus et croisés
Ungebleichte und geköpert: Baumwollen-
zeuge
Tessuti diagonali di cotone greggio
- CLASS XXVIII.**
- Linen Yarns, and Fabrics of Flax,
Hemp, &c.
Fils et Tissus de Lin, de Chanvre, etc.
Leinengarn und Zeuge aus Flachs,
Hanf etc.
Filo Scempo, e Tessuti di Lino, Canapa, ecc.
- (For detailed classification, see p. xviii.)
(Voir le système de classification, p. xviii.)
(Für detaillirte Classification, siehe Seite xviii.)
(Vedasi il sistema di classificazione, p. xviii.)
- 1 ELLIOTT, HUNT, & C^{IE.}, Preston
Bleached and unbleached linen, twines and
sewing thread
Toile de lin blanche et écrue, cordonnet et fil
Gebleichte und ungebleichte Leinwand, Schnur
und Nähgarn
Lino imbiancato e greggio, torto e filo da cucire
- 2 GOODERHAM & PAINE, Streetsville
Sackings and twine
Sacs de toile de lin et cordonnet
Sackleinwand und Sackband
Tela da sacchi e cordelle
- 3 DAIGNAULT, M^{ME.}, St. Hubert
Linens—*Toile de lin*
Leinwand—*Tele di lino*
- 4 ROY, JOSEPH, St. Jean
Linens—*Toile de lin*
Leinwand—*Tele di lino*
- 5 DAIGNAULT, BAZILE, St. Bruno
Linens—*Toile de lin*
Leinwand—*Tele di lino*

- 6 BOUCHARD, MME., St. Valier
Linen yarn
Fil de lin
Leinenes Garn
Filo scempio di lino
- 7 SOCIÉTÉ D'AGRICULTURE D'HERVILLE, St.
Athanase
Linen
Toile de lin
Leinwand
Tele di lino
- 8 SOCIÉTÉ D'AGRICULTURE DE JACQUES CARTIER, St. Laurent
Linen
Toile de lin
Leinwand
Tele di lino
- 9 SOCIÉTÉ D'AGRICULTURE DE BEAUCE, Ste Marie
Linen yarns and linen
Fil et toile de lin
Leinenes Garn und Leinwand
Filo scempio di lino e tela di lino
- 10 GAGNÉ, N., St. Anselme
Linen—*Toile de lin*
Leinwand—*Tele di lino*
- 11 FORTIN, MARCEL, L'Islet
Home-made linen
Toile faite en famille
Hausleinwand
Tele di lino casalinghe
- 5 PARENT, L'ABBÉ L., St. Jean Port Joli
Twilled fabric
Étoffe croisée
Geköpernte Stoffe
Tessuti diagonali
- 6 VERREAULT, P. G., St. Jean Port Joli
Flannels
Flanelles
Flanelle
Flanelle
- 7 ST.-AMAND, JOSEPH, Batiscan
Checked woollen and summer cloths
Étoffe à carreaux et petite étoffe
Carrierte wollene und Sommerzeuge
Tessuti di lana a scacchi e panni da estate
- 8 BOUCHARD, MME., St. Valier
Worsted stockings, checked cloth and spun wool
Bas de laine, étoffe à carreaux et laine filée
Wollene Strümpfe, carriertes Tuch und gesponnene Wolle
Calze di stame, panno a scacchi e lano filato
- 9 BENOIT, BAZILE, St. Hubert
Summer cloth
Petite étoffe
Sommerstoffe
Panno da estate
- 10 DAVID, FRANÇOIS, St. Hubert
Flannels
Flanelles
Flanelle
Flanelle
- 11 CHABOT, EUSÈBE, La Présentation
Blankets
Couvertures de laine
Wollene Bettdecken
Coperte
- 12 CHANDLER, MME., St. Armand
Worsted stockings
Bas de laine
Wollene Strümpfe
Calze di stame
- 13 BUSTED, JAMES, Ascot
Worsted stockings and socks
Bas et chaussettes de laine
Wollene Strümpfe und Socken
Calze a calzettò di stame
- 14 LARIVIÈRE, LOUIS, St. Ours
Worsted stockings
Bas de laine
Wollene Strümpfe
Calze di stame
- 15 L'AVENTURE, MME. A., St. Ours
Summer cloth
Étoffe légère
Sommerstoffe
Panno da estate
- 16 MORIN, MME. M., St. Ours
Brown cloth
Étoffe brune
Braunes Tuch
Panno scuro

CLASS XXX.

Carded Wool and Woollen Fabrics.

Fils et Tissus de Laine Cardée.

Gekrämpelte Wolle und wollene Stoffe.

Lana Cardata e Tessuti di Lana.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

- 1 BARBER & FRÈRES, Streetsville
Cloths and woollen fabrics
Draps et étoffes de laine
Tuche und wollene Stoffe
Panni e tessuti di lana
- 2 ROSAMOND & FRÈRES, Almonte
Woollen fabrics
Draps de laine
Wollene Fabricate
Tessuti di lana
- 3 ROBERTSON, A., & CIE, Montreal
Cloths and woollen fabrics
Draps et étoffes de laine
Tuche und wollene Fabricate
Panni e tessuti di lana
- 4 WILLET, S. T., Chambly
Flannels—*Flanelle*;
Flanello—*Flanelle*

17 FO, MME. F., St. Ours

Flannels—*Flanelles*Flannelle—*Flanelle*

18 FOURNIER, MME., St. Jean Port Joli

Worsted socks

Chaussettes, laine filée

Wollene Socken

Calzette di stame

19 DUVAL, CHS., St. Jean Port Joli

Black twilled cloths

Étoffes croisées noires

Schwarze geköpernte Tuche

Panno nero diagonale

20 FOURNIER, MICHEL, St. Jean Port Joli

Various woollen fabrics

Étoffes de laine diverses

Verschiedene Wollenfabricate

Vari tessuti in lana

21 PELLETIER, N., St. Jean Port Joli

Summer cloth and worsted

Petite étoffe et laine filée

Sommerstoffe und gesponnene Wolle

Panno da estate e stame

22 FORTIN, MARCEL, L'Islet

Various fabrics

Étoffes diverses

Verschiedenartige Stoffe

Tessuti di lana

23 HORNER, JAMES, Clarendon

Worsted

Laine filée

Gesponnene Wolle

Stame

24 ROY, JOSEPH, St. Jean

Flannels—*Flanelles*Flannelle—*Flanelle*

25 SOCIÉTÉ D'AGRICULTURE DE BEAUCE, Ste.

Marie

Blankets

Couvertures de laine

Wollene Bettdecken

Coperte

26 SOCIÉTÉ D'AGRICULTURE DE ST. HYACINTHE, St. Hyacinthe

Blankets

Couvertures de laine

Wollene Bettdecken

Coperte

27 SOCIÉTÉ D'AGRICULTURE DE VAUCHENIL, Vauchenil

Blankets

Couvertures de laine

Wollene Bettdecken

Coperte

28 SLINGSBY & KITCHEN, Canning

Blankets

Couvertures de laine

Wollene Bettdecken

Coperte

CLASS XXXII.

Shawls.

Châles.

Shawls.

Scialli.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite p. xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 ARCHAMBAULT, T., St. Jules

Woollen shawl

Châle de laine

Wollener Shawl

Scialle di lana

2 DUHAMEL, MME. ANDRÉ, St. Ours

Woollen shawl

Châle de laine

Wollener Shawl

Scialle di lana

3 GAGNÉ, N., St. Anselme

Woollen shawl

Châle de laine

Wollener Shawl

Scialle di lana

CLASS XXXIII.

Lace, Net, Embroidery and Small Wares.

Dentelles, Tullles, Broderies et Passementeries.

Spitzen, Netze, Stickerei und Posamentierwaaren.

Trina, Tulle, Ricamo, e Mercerie.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 KAKERITON, ANNE, Kaughnaouaga

Embroidered cradle and baby linen

Berceaux et layettes brodés

Gesticktes Wiegen- und Kinderzeug

Cuna e corredo da bambino ricamato

2 MACFEE, R., Clarenceville

Counterpanes embroidered by hand

Couvrepieds travaillés à l'aiguille

Mit der Hand durchnähte Bettdecke

Coltrici ricamate a mano

3 GAGNÉ, N., St. Anselme

Counterpanes

Couvrepieds

Durchnähte Bettdecke

Coltrici

4 BOUCHARD, MME., St. Valier

Lace collars

Collerettes de dentelle de fil

Spitzenkragen

Colletti di trina

CLASS XXXIV.

Hosiery and Underclothing, and Articles appertaining thereto.

Articles de Bonneterie et de Lingerie; Objets accessoires du Vêtement.

Strumpfwaaaren und Unterkleidung und hierher gehörige Gegenstände.

Calzetteria e Biancheria, e Oggetti appartenenti.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 BOUCHARD, MME., St. Valier

Linen napkins and cap

Bonnet de fil et serviettes de toile de lin

Leinene Servietten und Mütze

Tovaglioli e berretta di lino

2 KNITTING COMPANY, Ancaster

Knitted garments

Vêtements tricotés

Gestrickte Kleidungsstücke

Vesti a maglia

RANDALL, FARR, & CIE., Hespeler

Knitted garments

Vêtements tricotés

Gestrickte Kleidungsstücke

Vesti a maglia

4 FOURNIER, MME. F., St. Jean Port Joli

Caps—*Bonnets*

Mützen—*Berrette*

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidung für beide Geschlechter.

Abbigliamenti per ambe i Sessi.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 COUTURE, MME., St. Ambroise

Straw bonnet—*Chapeau de paille*

Strohhut—*Cappello di paglia da donna*

2 TAHOURHENCHÉ, PAUL, Lorette

Winter boots and shoes of embroidered leather; snow shoes

Chaussures d'hiver de cuir brodé; raquettes

Wintertiefeln und Schuhe aus gesticktem

Leder; Schneeschuhe

Stivali e scarpe da inverno di cuoio ricamato; stivale da neve

3 BARBEAU, JOSEPH, Quebec

Men's boots—*Bottes pour hommes*

Herrentiefeln—*Stivali da uomo*

4 DION, M., Quebec

Shooting boots—*Bottes de chasse*

Jagdschuhe—*Stivali da caccia*

5 MARTIN, GEO., Toronto

Ladies' boots and men's boots and shoes

Bottines de dames et chaussures pour hommes

Damenstiefeln und Herrenstiefeln und Schuhe

Stivaletti da donna, e stivali e scarpe da uomo

6 OFFORDE, M., Kingston

Boots and shoes made by the prisoners

Chaussures confectionnées par les prisonniers

Stiefeln und Schuhe, von Gefangenen gemacht

Stivali e scarpe fatti dai detenuti

7 TOURVILLE, CHARLES, Montreal

Hand-made boots and shoes

Chaussures fabriquées à la main

Durch Handarbeit verfertigte Stiefeln und Schuhe

Stivali e scarpe fatti a mano

8 SMITH & COCHRANE, Montreal

Machine-made boots and shoes

Chaussures confectionnées à la mécanique

Durch Maschinenarbeit verfertigte Stiefeln und Schuhe

Stivali e scarpe fatti a macchina

CLASS XXXVI.

Jewellery and Precious Stones.

Joaillerie et Bijouterie.

Geschmeide und Edelsteine.

Gioie e Pietre Preziose.

(For detailed classification, see p. xi.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 DUQUET, CYRILLE, Quebec

Pearl from St. François River, in the county of Montmagny, set in a pin made of gold from La Chaudière, near Quebec

Épingle fabriquée avec l'or de la Chaudière, près Québec, enchâssant une perle de la Rivière St. François dans le comté de Montmagny

Perlen vom St.-François-Fluss, in der Grafschaft Montmagny, gefasst in eine Nadel, gemacht von Gold von La Chaudière, bei Quebec

Perla del Fiume S. Francesco, nella contea di Montmagny, legata in uno spillo d'oro della Chaudière presso Quebec

CLASS XXXVIII.

Travelling Apparatus, and Camp Equipage.

Objets de Voyage et de Campement.

Reise-Apparate und Feldlager-Ausstattung.

Apparati da Viaggio, e Equipaggio da Campo.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 BARRINGTON, GEO., Montreal

Trunks and portmanteaux—*Malles et valises*

Koffer und Mantelsäcke—*Bauli e Valigie*

- 2 PEENY, EDOUARD, & CIE., Montreal
Trunks and portmanteaux
Malles et valises
Koffer und Mantelsäcke
Bauli e Valigie
- 3 TACHÉ, C. J., Outaouais
Portable tent for camping out during a march
Tente légère pour les campements, en marche
Tragbares Zelt zum Lagern während eines Marsches
Tenda portatile per accampare nel marzo

CLASS XXXIX.

Toys.
Bimbeloterie.
Spielzeug.
Trastulli.

(For detailed classification, see p. xix.)
(Voir le système de classification, p. xix.)
(Für detaillirte Classification, siehe Seite xix.)
(Vedasi il sistema di classificazione, p. xix.)

- 1 PEACOCK, WILLIAM, Montreal
Cricketing articles
Articles de jeu de cricket
Gegenstände für das Cricketspiel
Oggetti pel giuoco del cricket

GROUP V.—CLASS XL.

Mining and Metallurgy.
Produits de l'Exploitation des Mines et de la Métallurgie.

Berg- und Hüttenproducte.
Miniere e Metallurgia.

(For detailed classification, see p. xix.)
(Voir le système de classification, p. xix.)
(Für detaillirte Classification, siehe Seite xix.)
(Vedasi il sistema di classificazione, p. xix.)

- 1 COMMISSION GÉOLOGIQUE DU CANADA, Montreal
Collection of ores, minerals, stones for building purposes, marbles, rocks and fossils, with maps and reports
Collection de minerais, minéraux, pierres à bâtir, marbres, roches et fossiles, accompagnée de cartes et rapports
Sammlung von Erzen, Mineralien, Bausteinen, Marmor, Felsarten und Fossilien, mit Karten und Berichten
Collezione di minerali metallici, minerali, pietre per usi di costruzione, marmi, rocce e fossili, con mappe e rapporti
- 2 MORRIS, ALEXANDER, Perth
Iron ores—*Minerais de fer*
Eisenerze—*Minerali di ferro*
- 3 COWAN, A., Montreal
Iron ores and mica
Minerais de fer et mica
Eisenerze und Talkglimmer
Minerali di ferro e mica

- 4 MARMORA IRON COMPANY, Marmora
Iron ores and lithographic stones
Minerais de fer et pierres lithographiques
Eisenerze und Steine für Lithographen
Minerali di ferro e pietre litografiche

- 5 SEYMOUR, U., Madoc
Iron ores
Minerais de fer
Eisenerze
Minerali di ferro

- 6 WALBRIDGE FRÈRES, Belleville
Iron ores and cast iron
Minerais de fer et fer fondu
Eisenerze und Gusseisen
Minerali di ferro e ghisa

- 7 CHAFFLEY, G., & FRÈRES, Newborough
Iron ores
Minerais de fer
Eisenerze
Minerali di ferro

- 8 CANADA IRON MINING AND MANUFACTURING COMPANY, Hull
Iron ores and their products
Minerais de fer et leurs produits
Eisenerze und ihre Producte
Minerali di ferro e loro prodotti

- 9 McDougall, JOHN, Trois-Rivières
Iron from St. Maurice
Fer du St.-Maurice
Eisen von St. Maurice
Ferrodi S. Maurizio

- 10 PALMER, W. H., Sault Ste. Marie
Copper ores from Avondale
Minerais de cuivre d'Avondale
Kupfererze von Avondale
Minerali di rame di Avondale

- 11 MINES DE BRUCE, Lac Huron
Copper ores, raw and wrought, with plans of the mine
Minerais de cuivre à l'état brut et préparé, avec plans de la mine
Kupfererze, roh und verarbeitet, mit Plänen der Grube
Minerali di rame, grezzo e lavorati con piante delle miniere

- 12 WELLINGTON, C., Sterling
Lead ore
Mineral de plomb
Bleierz
Minerale di piombo

- 13 SWEENEY, JOHN, Tudor
Lead ores
Minerais de plomb
Bleierze
Minerali di piombo

- 14 HENICK, T. W., Sault Ste. Marie
Copper and lead ores
Minerais de cuivre et de plomb
Kupfer- und Bleierze
Minerali di rame e di piombo

- 15 COMPAGNIE DES MINES DU BAS CANADA, Ascot
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame
- 16 BELVEDERE MINING AND SMELTING COMPANY, Ascot
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame
- 17 CAPEL, G. B., Lennoxville
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame
- 18 COMPAGNIE DES MINES DE HUNTINGDON, Bolton
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame
- 19 IVES MINING COMPANY, Bolton
Copper and iron combined with chromium
Cuivre et fer chromé
Kupfer und Eisen in Verbindung mit Chromium
Rame e ferro combinati con cromo
- 20 MITCHELL, ROBERT, & CIE., Montreal
Copper cast and manufactured
Cuivre fondu et ouvré
Kupfer, gegossen und fabricirt
Rame gettato e lavorato
- 21 COMPAGNIE DES MINES DE ST. FRANÇOIS, Cleveland
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame
- 22 COMPAGNIE ANGLO-CANADIENNE, Leeds
Copper ores, raw and wrought
Minerais, de cuivre, brut et préparé
Kupfererze, roh und verhüttet
Minerali di rame, greggio e lavorato
- 23 TAPPAN, L. W., Lennoxville
Copper and copper regulus
Cuivre et régules du même métal
Kupfererze und Kupfer
Rame e regolo di rame
- 24 MARTINDALE, THOMAS, Oneïda
Gypsum
Gypse
Gyps
Gesso
- 25 DONALDSON, JOHN, Oneïda
Gypsum
Gypse
Gyps
Gesso
- 26 TAYLOR, ALEXR., Grand River
Gypsum
Gypse
Gyps
Gesso
- 27 FLINT, BILLA, Belleville
Marble and iron ores
Marbre et minerais de fer
Marmor und Eisenerze
Marmo e minerali di ferro
- 28 FEAGLE, L., Marmora
Marble
Marbre
Marmor
Marmo
- 29 COMPAGNIE D'ARDOISES DE ROCKLAND, Melbourne
Slates for roofing
Ardoises à couverture
Dachschiefer
Lavagne per tetti
- 30 COMPAGNIE D'ARDOISES DE MELBOURNE, Melbourne
Slates for roofing
Ardoises à couverture
Dachschiefer
Lavagne per tetti
- 31 BREED GROSVENOR COMPANY, Danville
Slates for roofing, writing, and slabs
Ardoises à couverture, à écrire et panneaux
Dachschiefer, Schiefertafeln und Platten
Lavagne per tetti, per scrivere e in lastre
- 32 MCINTOSH, M., Madoc
Paving stone
Dalles de pierre
Pflasterstein
Pietre da lastrico
- 33 PATERSON, JOHN, Knowlton
Lapis ollaris, or pot-stone, and talc
Pierre ollaire et talc
Lapis ollaris, oder Speckstein, und Talk
Pietra ollare, e pietra (di Como) da pignatte, e talco
- 34 BAINFIELD, B., Polton
Unctuous talc
Talc onctueux
Fettiger Talk
Talco untuoso
- 35 BAILEY, A., Polton
Unctuous talc
Talc onctueux
Fettiger Talk
Talco untuoso
- 36 WHITNEY, T. C., Polton
Unctuous talc
Talc onctueux
Fettiger Talk
Talco untuoso
- 37 McMANNIS, JOHN, Polton
Pot-stone
Pierre ollaire
Speckstein
Pietra ollare
- 38 HODGES, JAMES, Bulstrode
Peat
Tourbe
Torf
Torba

- 39 BALL, A. B. DOCTEUR, Petrolia**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 40 RAY, DOCTEUR, Bothwell**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 41 RICHARDSON, WILLIAM, Oil Springs**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 42 LINCOLN, WILLIAM, Thamesville**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 43 HIBBARD & AVARY, Tilsonburgh**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 44 THE GODERICH SALT COMPANY, Goderich**
Brine and salt
Saumure et sel
Salzsole und Salz
Salmoia e sale
- 45 CANADA PLUMBAGO MINING COMPANY, Buckingham**
Plumbago
Plombagine
Plumbago oder Graphit
Piombaggine
- 46 LOCHABER PLUMBAGO MINING COMPANY**
Lochaber
Plumbago
Plombagine
Graphit
Piombaggine
- 47 O'HARD, JAMES, Madoc**
Whetstone
Pierre à aiguiser
Schleifstein
Cote
- 48 BYER & MATHEWS, Gananoque**
Iron and copper hinges and rivets
Gonds et rivets de fer et de cuivre
Eisen- und Kupferangeln und Nieten
Cordini e caviglie di ferro e rame
- 49 COWAN & BRITTON, Gananoque**
Nails
Clous
Nägel
Chiodi
- 50 EVANS, H. C., Kingston**
Locks and manufactures of malleable iron
Serrures et objets en fonte malléable
Thürschlösser und schmiedeeiserne Gegenstände
Serrature e lavori di ferro malleabile
- 51 PARSONS & CIE., Toronto**
Oil of petroleum
Huile de pétrole
Steinöl
Olio di petroleo
- 52 CLARK, D. L. & R. S., Côte St. Paul**
Set of small bells
Collection de petites cloches
Eine Satz von Kleinen Klingeln
Assortimento di campanelli
- 53 LA BRÈCHE, VIGER, L. Montreal**
Iron sand, in its natural state and washed, from Moisie river; iron bars and edge tools manufactured therefrom
Sable de fer de la rivière Moisie, brut et lavé; barres de fer et outils tranchants d'acier de même provenance
Eisensand in seinem natürlichen Zustande und gewaschen, vom Moisiefluss; Stabeisen und Meissel, daraus verfertigt
Rena di ferro nel suo stato naturale e lavata del fiume Moisie; barre di ferro ed istrumenti taglienti fabbricati con quella
- 54 RICE, W. H., Montreal**
Wirework
Grillages de fil de fer
Drahtarbeit
Lavori in filo metallico
- 55 IVES & ALLAN, Montreal**
Iron work
Objets de fonte
Eisenarbeit
Lavori in ferro
- 56 BIGELOW, J. T., & CIE., Montreal**
Hardware
Objets de quincaillerie
Eisenwaaren
Chincaglierie
- 57 McKELVEY, JAMES, Ste. Catherine**
Refrigerator
Réfrigérateur
Refrigerator
Refrigeratore
- 58 PROWSE & FRÈRES, Montreal**
Refrigerator
Réfrigérateur
Refrigerator
Refrigeratore
- 59 KIRSHAW & EDWARD, Montreal**
Salamander
Salamandre
Salamander (eine runde Eisenschaufel)
Salamandra
- 60 DUNN, P., & DUNN, J., Côte St. Paul**
Patent nails for horseshoes
Clous brevetés pour fers à cheval
Patentirte Nägel für Hufeisen
Chiodi per ferrar cavalli (patentati)

CLASS XLI.

Products of the Cultivation of Forests,
and of the Trades appertaining
thereto.

*Produits des Exploitations et des Indus-
tries Forestières.*

Producte der Waldcultur und der dazu
gehörigen Gewerbe.

*Prodotti della Coltura delle Foreste e
delle Industrie che vi attendono.*

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 BRUNET, L'ABBÉ, Quebec

Collection of woods for educational purposes;
herbal, and photographs of trees and planta-
tions

*Collection de bois pour l'étude, avec herbier et
épreuves photographiques d'arbres et de
massifs d'arbres*

Eine Sammlung von Hölzern zum Unterrichts;
Pflanzensammlung und Photographien von
Bäumen und Pflanzungen

*Collezione di legnami per usi d'istruzione;
erbario e fotografie di alberi e piantazioni*

2 BUREAU DES INSPECTEURS DE BOIS, Quebec

Collection of woods for commercial purposes
Collection des bois de commerce

Eine Sammlung von Hölzern für kaufmänn-
ische Zwecke

Collezione di legnami per usi commerciali

3 HAMILTON BROTHERS, Hawksbury

Sections of trees with their bark

Sections d'arbres avec écorce

Baumdurchschnitte, mit ihrer Rinde

Sezioni di alberi colle loro scorze

4 SYLVAIN, GEORGE, Bic

Sawn wood—*Bois scié*

Gesägtes Holz—*Legno segato*

5 FERGUSON, MESSRS., Thamesville

Sections of trees—*Sections d'arbres*

Baumdurchschnitte—*Sezioni di alberi*

6 DUGUAY, L'ABBÉ, Ste. Luce

Sections of trees

Sections d'arbres

Baumdurchschnitte

Sezioni di alberi

7 LEPAGE, J. B., Rimouski

Sections of trees

Sections d'arbres

Baumdurchschnitte

Sezioni di alberi

8 CHAMPAGNE, ISIDORE, Ontonais

Sections of trees

Sections d'arbres

Baumdurchschnitte

Sezioni di alberi

9 CYRE, MICHEL, Gloucester

Sections of trees

Sections d'arbres

Baumdurchschnitte

Sezioni di alberi

10 FOURNIER, T., Rimouski

Sections of trees

Sections d'arbres

Baumdurchschnitte

Sezioni di alberi

11 MILLAR, JOHN, Montreal

Extract of bark for tanning purposes

Extrait d'écorce de pruche pour tanner

Rindeextract zum Gerben

Estratto di scorza per concia

12 IRISH, PETER, Brighton

Resin and turpentine

Résine et térébenthine

Harz und Terpentin

Resina e trementina

13 SÉNÉCAL, M., Baie St. François

Extract of bark

Extrait d'écorce de pruche

Rindeextract

Estratto di scorza

14 HOGAN, G., & CIE., Montreal

Calenders, tubs, buckets, and other utensils

Calandres, baquets, cuves et ustensiles divers

Rollen, Bütten, Eimer und verschiedene

Geräthe

Calandre, bigonci, secchie e utensili vari

15 NELSON, WOOD, & CIE., Montreal

Basket work

Objets de vannerie

Korbmacherwaaren

Lavori in vimini

16 EADON, E. C., Montmorency

Cullenders, buckets, tubs, and various utensils

Passoires, baquets, cuves et ustensiles divers

Siebe, Bütten, Eimer und verschiedene

Geräthe

Colatoje, secchie, bigonci ed utensili vari

17 PLOUFFE, LUC, St. Martin

Axe, pick and whip handles,

Manches de haches, de pics et de fouets

Stiele für Aexte, Hacken und Pietschen

Manichi di ascia di piccone e di frusta

18 MOORE, THOMAS, Etobicoke

Axe handles

Manches de haches

Stiele für Aexte

Manichi di ascia

19 HIGGINS, JOHN, St. Hilaire

Handles for various tools

Collection de manches d'outils

Stiele für verschiedene Werkzeuge

Manichi per vari arnesi

20 SHEARER, J., Montreal

Machine-made doors and windows

Portes et fenêtres fabriquées à la mécanique

Thüren und Fenster, von Maschinen gemacht

Porte e finestre fatte a macchina

CLASS XLII.

Products of Shooting, Fishing, and of the Earth obtained without Cultivation.

Produits de la Chasse, de la Pêche et des Oueillettes.

Producte der Jagd, des Fischfangs und der Erde, ohne Cultur erlangt.

Prodotti della Caccia, della Pesca, e della Terra ottenuti senza Coltura.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 CHAMBRE DES ARTS ET MANUFACTURES DU HAUT CANADA, Toronto

Stuffed birds

Collection d'oiseaux empaillés

Ausgestopfte Vögel

Uccelli impagliati

2 BETHUNE, REV. C. J. S., Cobourg

Collection of insects

Collection d'insectes

Insectensammlung

Collezione di insetti

3 PASSMORE, S. W., Toronto

Collection of fish—*Collection de poissons*

Fischsammlung—*Collezione di pesci*

4 COTÉ, O., Quebec

Furs and skins—*Fourrures et pelleteries*

Pelze und Häute—*Pelliccie e pelli*

5 GIROUX, O., Quebec

Collection of plants and their products

Collection de plantes et produits de plantes

Eine Sammlung von Pflanzen und ihren Producten

Collezione di piante e loro prodotti

6 THOMPSON, JAMES, Outaouais

Horns of the elk

Panache d'original

Hörner vom Elennthier

Corna d'alce

7 CHAMPAGNE, ISIDORE, Outaouais

Horns of the Canadian goat

Cornes de chevreuil du Canada

Hörner der Canadischen Ziege

Corna della capra Canadiana

8 TAHOURHENCHÉ, PAUL, Lorette

Hair of the elk in its natural state and coloured for embroidery

Poils à broder d'original naturel et peint

Hörner des Elennthieres in ihrem natürlichen Zustande und gefärbt für Stickerei

Pelo d'alce nello stato naturale e colorato pel ricamo

9 SHEPHARD, W. G., Quebec

Down of the elk

Duvet d'original

Milchhaare des Elennthieres

Piumino dell'alce

10 COTÉ, MAJORIC, Rimouski

Cod-liver oil

Huile de foie de morue

Leberthran

Olio di fegato di merluzzo

11 MATHEW, J., & FILS, Montreal

Clarified animal and fish oils

Huiles clarifiées d'animaux et de poissons

Gereinigte Thier- und Fischöl

Oli animali e di pesce chiarificati

12 CLARE, LYMAN, & CIE., Montreal

Plants used for medicinal and dyeing purposes

Plantes médicinales et tinctoriales

Pflanzen für Medicin und zum Färben

Piante usate per usi medicinali e tintori

13 SAUNDER, WILLIAM, London

Medicinal plants and roots

Plantes et racines médicinales

Medicinische Pflanzen und Wurzeln

Piante e radici medicinali

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile Conservation.

Leicht conservirbare landwirthschaftliche Producte (die nicht zur Nahrung dienen).

Prodotti Agrari (non usati per Cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 DONALDSON, J. A., Toronto

Specimens of flax, raw and prepared

Échantillons de lin brut et préparé

Proben von Flachs, roh und präparirt

Campioni di lino grezzo e preparato

2 KIRKWOOD, A., Outaouais

Collection of textile plants stripped and unstripped

Collection de plantes textiles teillées et non-teillées

Eine Sammlung von Faserpflanzen, entblösst und unentblösst

Collezione di piante tessili scortecciate e colla scorza

3 JOLY, H. G., Quebec

Specimens of hemp

Échantillons de chanvre

Hanfproben

Campioni di canapa

4 LOGAN, SIR WILLIAM

Flax and tow

Lins et filasses

Flachs und Werg

Lino e stoppa

- 5 GENAND, DOCTEUR, St. Jacques
Specimens of tobacco
Echantillons de tabacs
Tabacksproben
Campioni di tabacco
- 6 ELLIOT, HUNT, & CIE., Preston
Linseed oils
Huiles de lin
Leinöl
Olio di seme di lino
- 7 LINSEED OIL COMPANY, Toronto
Linseed oils and cakes
Huiles et tourteaux de lin
Leinöl und Kuchen
Olio e panelli di seme di lino
- 8 STARKE, SMITH, & CIE., Montreal
Specimens of tobacco
Echantillons de tabacs
Tabacksproben
Campioni di tabacco
- 9 MORTON, G., Brantford
Linseed
Graine de lin
Leinsamen
Seme di lino
- 10 KERR, ROBERT, Clarendon
Linseed
Graine de lin
Leinsamen
Seme di lino
- 11 SOCIÉTÉ D'AGRICULTURE DE KAMOURASKA,
Kamouraska
Linseed
Graine de lin
Leinsamen
Seme di lino
- 12 ÉCOLE D'AGRICULTURE DE STE. ANNE, Ste.
Anne
Linseed and grass-seed
Graine de lin et de plantes fourragères
Leinsamen und Grassamen
Seme di lino e d'erba
- 13 GOLDSMITH, A. W., Ste. Catherine
Hungary grass seed
Graine de foin de Hongrie
Ungarischer Grassamen
Seme d'erba ungarese
- 14 CANOVER, SAMUEL, Port Credit
Hops
Houblon
Hopfen
Luppoli
- 15 ROBSON, J. J., Newcastle
White mustard seed
Graines de moutarde blanche
Weisser Senfsamen
Seme di mostarda bianca
- 16 PRATT, JOHN, Cobourg
Mangel-wurzel seed
Graines de mangle-worzell
Mangoldwurzelnsamen
Seme di mangle-wurzel
- 17 BARTHOLOMEW, PHILIP, Markham
Millet seed
Graine de mil
Hirsensamen
Seme di miglio
- 18 HORNER, J., Clarendon
Wool in its grease
Laine en suint
Ungereinigte Wolle
Lana in unto
- 19 VAUGHAN, W. H., St. Jean
Millet seed
Graine de mil
Hirsensamen
Seme di miglio
- 20 SOCIÉTÉ D'AGRICULTURE DE BEAUCE, St
Marie
Millet seed
Graine de mil
Hirsensamen
Seme di miglio
- 21 CANTON DE RAWDON, Rawdon
Clover seed
Graine de trèfles
Kleesamen
Seme di trifoglio
- 22 SOCIÉTÉ D'AGRICULTURE DES DEUX MON-
TAGES, St. Eustache
Lentils
Lentilles
Linsen
Lenticchie
- 23 HOLT, CHARLES, Brooklin
Turnip and carrot seed
Graines de navets et de carottes des champs
Steckrüben- und Mohrrübensamen
Seme di rapa e carota
- 24 SOCIÉTÉ D'AGRICULTURE DE JACQUES
CARTIER, St. Laurent
Linseed
Graine de lin
Leinsamen
Seme di lino
- 25 RAE, JOHN, Port Stanley
Flax raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato
- 26 MITCHELL, COLONEL C., Norval
Flax, raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato
- 27 GOODERHAM & WORTS, Streetsville
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

28 PAINE BROTHERS & Co., Doon
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

29 ELLIOT & HUNT, Preston
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

30 BLACK & FORESTER, Ste. Marie
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

31 MORTON & Co., Bradford
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

32 O'BRIEN, COLONEL, Barrie
Flax raw and steeped
Lin brut et roué
Rohr und gerösteter Flachs
Lino grezzo e macerato

33 COLON, ROBERT, Port Credit
Flax raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato

34 DENISON, COLONEL R. L., Toronto
Flax raw and steeped
Lin brut et roué
Rohr und gerösteter Flachs
Lino grezzo e macerato

35 CAVAN, JAMES, Port Credit
Flax raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato

36 YOUNG & Co., St. Thomas
Flax raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato

37 GARTSHORE & CIE., Dundas
Prepared flax
Lin préparé
Präparirter Flachs
Lino preparato

38 CANADA LAND & EMIGRATION COMPANY,
Dysart
Flax raw and prepared
Lin brut et préparé
Rohr und präparirter Flachs
Lino grezzo e preparato

39 BOIS, LOUIS, St. Jean Port Joli
Tow
Filasse de lin
Werg
Stoppa

40 BOD, WILLIAM, St. Laurent
Tow—*Filasse de lin*
Werg—*Stoppa*

41 TURCOT, P., St. Henri
Tow—*Filasse de lin*
Werg—*Stoppa*

42 KIRKWOOD, ALEXANDER, Outaouais
Specimen of grass (for fodder) grown as an experiment
Plante fourragère cultivée comme essai
Muster von Gras (Futter) als ein Experiment gezogen
Campioni di erba (per foraggio) coltivata per esperimento

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.
Chemische und pharmaceutische Produkte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 LYMAN, CLARE, & CIE., Montreal
Drugs, dyes, essences, and chemical preparations
Médicaments, substances tinctoriales, essences, et préparations chimiques
Arzneistoffe, Färbstoffe, Essenzen und chemische Präparate
Droghe, tinte, essenze e preparati chimici

2 GIROUX, O., Quebec
Drugs, dyes, essences, and chemical preparations
Médicaments, substances tinctoriales, essences et préparations chimiques
Arzneistoffe, Färbstoffe, Essenzen und chemische Präparate
Droghe, tinte, essenze e preparati chimici

3 LINSEED OIL COMPANY, Toronto
Colours—*Couleurs*
Farben—*Colori*

4 CANADIAN RUBBER COMPANY, Montreal
India-rubber shoes
Chaussures de caoutchouc
Gummischuhe
Scarpe di gomma elastica

5 ATIVATER & CIE., Montreal
Varnishes
Vernis
Firnisso
Vernici

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 COTÉ, O., Quebec

Dressed skins and furs

Pelletteries et fourrures apprêtées

Appretirte Leder und Pelze

Pelli e pellicce conciate

2 TÊTU, DAVID, Rivière Onelle

Porpoise and cat-fish skins

Peaux de marsouin et de loup marin

Häute vom Meerschwein und der Seekatze

Pelli di pesce porco, e pesce gatto

3 VALOIS, NARCISSE, Montreal

Leather

Cuir

Leder

Cuoio

4 DONOVAN, MORAN, & CIE., Montreal

Leather

Cuir

Leder

Cuoio

5 DEWITT, JACOB, Montreal

Leather for gloves

Peaux pour ganterie

Handschuhleder

Pelle da guanti

6 ECROYD, THOMAS, Montreal

Leather

Cuir

Leder

Cuoio

7 KICKERT, MASELY, & CIE., Montreal

Leather

Cuir

Leder

Cuoio

8 SHAW, F., & FRÈRES, Montreal

Leather for boot-soles

Cuir à semelles

Sohlenleder

Cuoio per sole da stivali

9 DUGAL, P., Quebec

Leather

Cuir

Leder

Cuoio

GROUP VI.—CLASS XLVIII.

Agricultural Apparatus and Processes
used in the Cultivation of Fields and
Forests.*Matériel et Procédés des Exploitations
Rurales et Forestières.*Landwirthschaftliche Apparate und
Verfahren für die Cultur der Felder
und Wälder.*Apparati e Processi Agrari usati nella
Cultura di Campi e Foreste.*

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 COLLÈGE ET ÉCOLE D'AGRICULTURE DE STE.
ANNE, St. AnnePlan in relief of the college and school build-
ings, and plans drawn on paper of the lands
and mode of cultivation*Plan-relief des bâtimens du collège et de l'école,**et plans sur papier du domaine et des cultures*Reliefkarte des Collegiums und der Schulge-
bäude, und Plan der Länder auf Papier, und

Culturverfahren

*Pianta in rilievo degli edifizii del collegio e**della scuola, e pianta disegnata su carta delle**terre e modo di coltura*

2 PATERSON BROTHERS, Richmond Hill

Winnowing machine and chaff-cutter

Tarare et coupe-paille

Kornschwinde und Spreubank

Ventilabro e taglia-pagliuolo

3 MAHAFFEY, WM., Brampton

Wooden plough—*Charrue de bois*Hölzerner Pflug—*Aratro di legno*

4 DUNCAN, ALEXANDER, Markham

Iron plough—*Charrue de fer*Eiserner Pflug—*Aratro di ferro*

5 GRAY, JOHN, Edmingtonville

Wooden plough

Charrue de bois

Hölzerner Pflug

Aratro di legno

6 JONES, D. H., & CIE., Gananoque

Agricultural instruments

Instruments de culture

Landwirthschaftliche Geräthe

Strumenti agrari

7 WHITING, A. S., Oshawa

Agricultural implements

Instruments pour l'agriculture

Landwirthschaftliche Geräthe

Attrazzi agrari

8 MAXWELL & WHITELAW, Paris, H. C.

Chaff-cutter and turnip-cutting machines

Hache-paille et coupe-racines

Spreubank und Rübenscheidemaschinen

Macchina taglia-pagliuolo, e taglia-rape

- 9 PROULX, ISIDORE, Outaouais
 Axes for cutting down and pruning trees
Haches pour l'exploitation des forêts
 Aexte zum Fällen und Ausputzen der Bäume
Asce per abbattere e potare alberi

CLASS I.

Apparatus and Processes used in
 Agricultural Works, and in the
 Preparation of Food.

*Matériel et Procédés des Usines Agri-
 coles et des Industries Alimentaires.*

Apparate und Verfahren, angewandt
 in Meiereien, und in der Nahrungs-
 bereitung.

*Apparati e Processi usati in Operazioni
 Agrarie e nella Preparazione dei Cibi.*

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

- 1 TOURANGEAU, J. G., Quebec
 Bread-making machine
Pétrisseur mécanique
 Maschine zum Brotmachen
Macchina da pane
- 2 NIGHTINGALE, THOMAS, Yorkville
 Drain pipes
Tuyaux de drainage
 Abzugsröhren
Condotti da scolì

CLASS LIII.

Machines and Apparatus in general.

*Machines et Appareils de la Mécanique
 générale.*

Maschinen und Apparate im allge-
 meinen.

Macchine e Apparati in generale.

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

- 1 DION, CHARLES, Montreal
 Fire-alarm bells
Sonnerie d'alarme contre l'incendie
 Feuersignalglocken
Campanelli allarme da incendio
- 2 COX & MURPHY, Montreal
 Hydrometer for ascertaining the excise duties
 payable by distilleries
*Hydromètre appliqué aux distilleries en vue des
 droits d'accise*
 Wassermesser, um die Steuern in Brennereien
 zu ermitteln
*Idrometro per istabilire il dazio consumo
 dovuto dalle distillerie*

- 3 JAYS, P. E., Montreal
 Pump and machine for deodorising coal oil
*Pompe et machine pour désinfecter l'huile de
 charbon*
 Pumpe und Maschine, um Kohlenöl geruchlos
 zu machen
*Pompa e macchina per deodorare l'olio di car-
 bon fossile*

- 4 BRIGGS, J., Gananoque
 Pumps—*Pompes*
 Pumpen—*Pompe*

- 5 GORDONS, ALEXANDER, & CIE., Montreal
 Balances—*Balances*
 Wagen—*Bilance*

- 6 McLAREN, J. C., Montreal
 Leather belts and piping
Courroies de cuir et tuyaux
 Lederne Riemen und Schläuche
Tubi e bande di cuoio

- 7 CAMPBELL, S., Montreal
 Driving belts
Courroies de cuir
 Treibriemen
Bande comunicanti moto

CLASS LIV.

Machine Tools.

Machine-Outils.

Maschinenwerkzeuge.

Istrumenti Macchine.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(Vedasi il sistema di classificazione, p. xxiii.)

- 1 FROTHINGHAM & WORKMAN, Montreal
 Various kinds of tools
Outils de divers genres
 Verschiedene Werkzeuge
Varie specie di arnesi
- 2 DATE, HENRY W., Galt
 Edge tools—*Outils tranchants*
 Schneidewerkzeuge—*Arnesi taglienti*
- 3 WHITY, PHILIP, Quebec
 Patent picks for mining purposes
Pics brevetés pour le travail des mines
 Patentirte Hauen für Bergwerke
Picconi patentati per uso di miniere
- 4 FLINT, J., Ste. Catherine
 Circular and other saws
Scies circulaires et autres
 Kreis- und andere Sägen
Seghe circolari ed altre
- 5 DAWSON, JOHN, Montreal
 Planes—*Rabots*
 Hobel—*Pialle*
- 6 ABBOTT, E. E., Gananoque
 Chairs and bolts
Coussinets et chevilles
 Schwellen und Bolzen
Cuscinetti e chiavarde

- 7 MORLAND, WATSON, & CIE., Montreal
Instruments used in making saws
Objets appartenant à la confection des scies
Instrumente, zum Sägenmachen gebraucht
Strumenti usati nel fabbricar seghe

CLASS LV.

Apparatus and Processes used in
Spinning and Rope Making.
Matériel et Procédés du Filage et de la
Corderie.

Apparate, und Processe, für's Spinnen
und Seilmachen.

Apparati e Processi usati nella Filatura
e Fabbrica di Cordami.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(Vedasi il sistema di classificazione, p. xxiii.)

- 1 TASCHEREAU, ONSLOW, & RYAN, Quebec
Rope, cord, twine
Cordages, cordes et ficelles
Seil, Stricke, Bindfaden
Gomena, corda, spago
- 2 ELLIOTT, HUNT, & CIE., Preston
Rope, cord — *Cordes et cordages*
Seile, Stricke — *Gomena, corda*
- 3 GOODERHAM & PERINE, Streetsville
Rope, cord — *Cordes et cordages*
Seile, Stricke — *Gomena, corda*
- 4 THURSTON, EYRE, Ancaster
Cord — *Cordes*
Stricke — *Corda*

CLASS LVII.

Apparatus and Processes for Sewing
and for Making up Clothing.

Matériel et Procédés de la Couture et de
la Confection des Vêtements.

Apparate und Verfahren zum Nähen
und Kleidermachen.

Apparati e Processi usati nel Cucire e
Confezionar Abiti.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(Vedasi il sistema di classificazione, p. xxiii.)

- 1 GATES & CIE., Toronto
Sewing machines
Machines à coudre
Nähmaschinen
Macchine da cucire
- 2 IRWIN, C., & CIE., Belleville
Sewing machine
Machine à coudre
Nähmaschine
Macchina da cucire

- 3 RAYMOND, M., Guelph
Sewing machine — *Machine à coudre*
Nähmaschine — *Macchina da cucire*
- 4 WANGER & CIE., Hamilton
Sewing machine — *Machine à coudre*
Nähmaschine — *Macchina da cucire*
- 5 WILLIAMS, C. W., & CIE., Montreal
Sewing machine — *Machine à coudre*
Nähmaschine — *Macchina da cucire*

- 6 REED & CHILDS, Montreal
Boot-trees — *Formes à chaussures*
Schuhleisten — *Gambali e forme*

CLASS LVIII.

Apparatus and Processes used in the
Manufacture of Furniture, &c.

Matériel et Procédés de la Confection
des Objets de Mobilier et d'Habitation.

Apparate und Verfahren für die Mö-
belfabrication etc.

Apparati e Processi usati nella Fabbri-
cazione della Mobilia, ecc.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(Vedasi il sistema di classificazione, p. xxiii.)

- 1 BOISSONNAULT & FRECHETTE, Quebec
Rimer with keys invented and made by the
exhibitors
Bonnet à clefs inventé et exécuté par les ex-
posants
Spitzbohrer mit Schlüsseln, erfunden und
gemacht von den Ausstellern
Cerchio fesso con chiavi inventato e fatto dagli
espositori
- 2 POLLOCK & CALVERT, Montreal
Cutting out saw
Scie à découper
Säge zum Ausschneiden
Sega intagliatrice

CLASS LIX.

Apparatus and Processes used in Paper
Making, &c.

Matériel et Procédés de la Papeterie, etc.

Apparate und Verfahren für die Pa-
pierfabrication etc.

Apparati e Processi usati nella Fabbri-
cazione della Carta.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

- 1 BOISSONNAULT, N. F., Quebec
Patent Boissonnault paper case
Serre-forme Boissonnault breveté
Boissonnault's patentirter Papierform
Serra-forma patentato di Boissonnault

- 2 JULIEN, H., Quebec**
 Patent press for printing directions
Presse à adresses brevetée
 Patentirte Presse zum Drucken von Adressen
Torchio patentato per stampare indirizzi
- 3 CAMPBELL, J. A., Whitby**
 Machine for preparing newspapers for distribution
Machine à préparer les journaux pour distribution
 Maschine, um Zeitungen für die Austheilung vorzubereiten
Macchina per preparare i giornali per la distribuzione
- 4 RUTHVEN, JAMES, Montreal**
 Ruling pens
Plumes à rayer le papier
 Reissfedern
Penne per trigare

CLASS LXI.

Carriages and Wheelwright's Work.
Carrosserie et Charronnage.
 Kutschen und Wagnerarbeit.
Carrozze e Ruote.

(For detailed classification, see p. xxiv.)
 (Voir le système de classification, p. xxiv.)
 (Für detaillirte Classification, siehe Seite xxiv.)
 (Vedasi il sistema di classificazione, p. xxiv.)

- 1 GINGRAS, ÉDOUARD, Quebec**
 Large ornamented sledge and light sledge
Grand traîneau de luxe et traîneau léger
 Ein grosser verzierter und ein leichter Schlitten
Slitta grande da gala, e slitta leggera
- 2 GINGRAS, GODEFROY, Quebec**
 Sledge carriage
Voiture-planche
 Schlittenwagen
Carrozza-slitta
- 3 KINLEY & SAUNDERS, Ste. Catherine**
 Shaped and embossed panels for carriages
Bois découpés et gaufrés pour la confection des voitures
 Geformte und erhabene Felder für Kutschen
Riquadri sbazzati e incassati per carrozze
- 4 BRIGGS, J., Gananoque**
 Carriage springs
Ressorts de voiture
 Kutschen-Springfedern
Molle da carrozza
- 5 BYER & MATHEW, Gananoque**
 Carriage axles
Essieux de voiture
 Kutschenachsen
Sale da carrozza
- 6 GIBSON, W. H., Oakville**
 Carriage springs
Ressorts de voiture
 Kutschenspringfedern
Molle da carrozza

- 7 TAHOURHENCHÉ, PAUL, Lorette**
 Toboganes or Indian sledges
Toboganes ou trains sauvages
 Tobogane oder Indianische Schlitten
Tobogane o slitta indiana
- 8 DUNCAN, ALEXANDER, Markham**
 Swing bars
Palonniers
 Ortscheite
Balestre per tirelle

CLASS LXII.

Harness and Saddlery.
Bourrellerie et Sellerie.
 Pferdegeschirr und Sattlerwaaren.
Fornimenti da Cavalli e Sellerie.

(For detailed classification, see p. xxiv.)
 (Voir le système de classification, p. xxiv.)
 (Für detaillirte Classification, siehe Seite xxiv.)
 (Vedasi il sistema di classificazione, p. xxiv.)

- 1 BACH, EDWARD, Toronto**
 Lady's saddle and gentleman's saddle
Selle de dame et selle de monsieur
 Damensattel und Herrensattel
Sella da signora, sella da signore
- 2 FISHER & BLOUIN, Quebec**
 Plain harness
Harnais simple
 Einfaches Pferdegeschirr
Fornimenti semplici
- 3 SKINNER, WILLIAM, Gananoque**
 Brass and silver plated harness
Harnais plaqués en cuivre et en argent
 Mit Messing und Silber beschlagenes Pferdegeschirr
Fornimenti con placche d'ottone e d'argento
- 4 WRIGHT, J., Quebec**
 Lady's saddle
Selle de dame
 Damensattel
Sella da donna
- 5 STEWARD, WILLIAM, Toronto**
 Lady's saddle
Selle de dame
 Damensattel
Sella da donna
- 6 IRWIN, J. & R., Montreal**
 Plain harness
Harnais simple
 Einfaches Pferdegeschirr
Fornimenti semplici
- 7 CORNEIL, CHARLES, Quebec**
 Gentleman's saddle
Selle de monsieur
 Herrensattel
Sella da uomo

CLASS LXIII.

Railway Apparatus.

Matériel des Chemins de Fer.
Eisenbahn-Betriebsmaterialien.
Attrazzi di Stradeferrate.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

- 1 COMPAGNIE DU CHEMIN DE FER DU GRAND-TRONC, Montreal
Model of trucks—*Modèle de wagons*
Modell von Loren—*Modello di wagone*
- 2 LAKUE & CIE., Trois-Rivières
Railway wheels—*Roues pour chemins de fer*
Eisenbahnräder—*Ruote ferroviarie*
- 3 McDougall, John, Montreal
Railway wheels—*Roues pour chemins de fer*
Eisenbahnräder—*Ruote ferroviarie*
- 4 MILLARD, R., & CIE., Montreal
Chairs and bolts for railroads
Coussinets et chevilles pour chemins de fer
Schwellen und Bolzen für Eisenbahnen
Cuscinetti e chiavarde ferroviarie
- 5 SYMN, F. H., Montreal
Railway switch—*Lévier pour chemins de fer*
Eisenbahnweiche—*Leva di scambio ferroviario*

CLASS LXIV.

Telegraphic Apparatus and Processes.
Matériel et Procédés de la Télégraphie.
Telegraphische Apparate und Pro-
cesse.

Apparati e Processi Telegrafici.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

- 1 CHATELoup, Ernest, Montreal
Telegraphic apparatus—*Appareil de télégraphie*
Telegraphischer Apparat—*Apparati telegrafici*

CLASS LXV.

Civil Engineering, Public Works, and
Architecture.

*Matériel et Procédés du Génie Civil, des
Travaux Publics et de l'Architecture.*
Civilingenieurkunst, öffentliche Bauten
und Architectur.

*Genio Civile, Lavori Pubblici e Archi-
tettura.*

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

- 1 COMPAGNIE DES MOULINS DE MONTMORENCY,
Quebec
Laths and shingles
Lattes et bardeaux
Latten und Schindeln
Panconcelli e assicelle

- 2 BULMER & SHEPPARD, Montreal
Plain and ornamental bricks for building pur-
poses
Briques à bâtir simples et ornées
Einfache und verzierte Backsteine für
Bauten
*Mattoni semplici e d'ornamento per costru-
zioni*

- 3 GAUVREAU, P., Quebec
Hydraulic cement
Ciment hydraulique
Hydraulischer Cement
Cemento idraulico

- 4 GAUVREAU, LOUIS P., Quebec
Cement
Ciment
Cement
Cemento

- 5 BROWN, J., Thorold
Hydraulic cement
Ciment hydraulique
Hydraulischer Cement
Cemento idraulico

CLASS LXVI.

Navigation and Life Boats.

*Matériel de la Navigation et du Sauve-
tage.*
Schiffahrt und Rettungsböte.
Nautica e Barche di Salvagione.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

- 1 DUBORD, H., Quebec
Models of merchant vessels
Modèles de navires de commerce
Modelle von Handelsschiffen
Modelli di navi mercantili
- 2 FERGUSON, T., Quebec
Models of merchant vessels
Modèles de navires de commerce
Modelle von Handelsschiffen
Modelli di navi mercantili
- 3 VALIN, P., Quebec
Models of merchant vessels
Modèles de navires de commerce
Modelle von Handelsschiffen
Modelli di navi mercantili
- 4 ROSA, L., Quebec
Models of merchant vessels
Modèles de navires de commerce
Modelle von Handelsschiffen
Modelli di navi mercantili
- 5 WELLS, DOCTEUR, Quebec
Models of ships built in the Quebec dockyards
*Modèles de navires des chantiers de construction
de Québec*
Modelle von Schiffen, in Quebec gebaut
*Modelli di navi costrutte nei cantieri di
Quebec*

6 PAINCHAUD, DOCTEUR, Varennes

Apparatus for saving life

Appareil de sauvetage

Rettungsapparat

*Apparati di salvagione***GROUP VII.—CLASS LXVII.**

Cereals and other Edible Farinaceous
Products; and the Products derived
therefrom.

*Céréales et autres Produits Farineux
Comestibles, avec leurs Dérivés.*

Getreide und andere essbare mehlige
Producte und deren Educte.

*Cereali ed altri Comestibili Farinacei, e
Prodotti che ne derivano.*

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 ÉCOLE D'AGRICULTURE DE STE. ANNE, Ste. Anne

Collection of products and cereals

Collection de produits et céréales

Producten- und Getreide-Sammlung

*Collezione di prodotti e cereali***2 BARCLAY, FRANCIS, Innisfield**

Wheat

Blé

Weizen

*Fumento***3 BELL, M. M., Toronto**

Winter and spring wheat

Blé d'hiver et de printemps

Winter- und Sommerweizen

*Fumento d'inverno e di primavera***4 BROWNIE, THOMAS, York**

Spring wheat

Blé de printemps

Sommerweizen

*Fumento di primavera***5 LOGAN, SIR WILLIAM, Montreal**

Various products and cereals

Produits divers et céréales

Verschiedene Producte und Getreide

*Vari prodotti e cereali***6 SOCIÉTÉ D'AGRICULTURE DE KAMOURASKA, Kamouraska**

Cereals

Céréales

Getreide

*Cereali***7 CARUTHER, JAMES, Haldimand**

Spring wheat

Blé de printemps

Sommerweizen

*Fumento di primavera***8 PATERSON, JOHN L., Scarborough**

Barley—Orge—Gerste—Orzo

9 MITCHELL, JOHN, Mono

Wheat

Blé

Weizen

*Fumento***10 PEB, JAMES, Whitby**

Winter rye

Seigle d'hiver

Winterkorn

*Segale d'inverno***11 RIDDELL, WALTER, Cobourg**

Oats and beans

Avoine et fèves

Hafer und Bohnen

*Avena e fave***12 KERR, ALEXANDER, Westminster**

Cereals

Céréales

Getreide

*Cereali***13 SHAW, JOHN, Nisouri**

Green peas and buckwheat

Petits pois et sarrasin

Grüne Erbsen und Buchweizen

*Piselli e saggina***14 SHAW, ALEXANDER, Toronto**

Marrowfats and maize

Pois gras et maïs

Grosse Englische Erbsen und Türkischer

Weizen

*Piselli e granturco***15 TRAN, JAMES, Markham**

Spotted marrowfats

Pois gras à taches noires

Schwarzgefleckte grosse Englische Erbsen

*Piselli grassi a macchie nere***16 BROWN, H. J., Niagara**

Maize

Maïs

Türkischer Weizen

*Granturco***17 FLEMING, JAMES, & CIE., Toronto**

Cereals

Céréales

Getreide

*Cereali***18 BARTHOLOMEW, PHILIP, Markham**

Oats and buckwheat

Avoine et sarrasin

Hafer und Buchweizen

*Avena e saggina***19 LUKS, WILLIAM, Newmarket**

Wheat flour

Farine de blé

Weizenmehl

*Fiore di frumento***20 BICHE, J. B., Brooklyn**

Wheat flour

Farine de blé

Weizenmehl

Fiori di frumento

- 21 McLEAN, GEORGE, Aberfoyle**
Oatmeal
Farine d'avoine
Hafermehl
Farina d'avena
- 22 ROSE, LAWRENCE, Georgetown**
Flour from buckwheat and from maize
Farines de sarrasin et de maïs
Mehl von Buchweizen und Türkischem Weizen
Farina di saggina e di granturco
- 23 KING, J., Hamilton**
Hulled barley and split peas
Orge mondé et pois fendus
Gerstengraupen und geschnittene Erbsen
Orzo sgusciato e piselli infranti
- 24 VERREAULT, T. G., St. Jean Port Joli**
Fecula from potatoes
Fécule de pommes de terre
Kartoffelstärke
Fecola di patate
- 25 DUBÉ, OCTAVE, St. Jean Port Joli**
Peas
Pois
Erbsen
Piselli
- 6 CARON, ETIENNE, St. Jean Port Joli**
Spring wheat
Blé du printemps
Sommerweizen
Frumento di primavera
- 27 PELLETIER, NARCISSE, St. Jean Port Joli**
Hulled barley
Orge mondé
Gerstengraupen
Orzo sgusciato
- 28 BOIS, CLÉMENT, St. Jean Port Joli**
Rye
Seigle
Korn
Segale
- 29 BOUCHARD, MME., St. Valier**
Fecula from potatoes
Fécules de pommes de terre
Kartoffelstärke
Fecola di patate
- 30 YOUNG, J., Bristol**
Barley
Orge
Gerste
Orzo
- 31 SHEILLY, WILLIAM, Bristol**
Winter wheat
Blé d'hiver
Winterweizen
Frumento d'inverno
- 32 MALDRUM, J., Bristol**
Spring wheat
Blé du printemps
Sommerweizen
Frumento di primavera
- 33 McJARNET, ROBERT, Bristol**
Peas
Pois
Erbsen
Piselli
- 34 STEWART, ARCHIBALD, Bristol**
Cereals
Céréales
Getreide
Cereali
- 35 WEST, GEORGE, Ste. Foye**
Cereals
Céréales
Getreide
Cereali
- 36 SOCIÉTÉ D'AGRICULTURE DE LEVIS**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 37 SOCIÉTÉ D'AGRICULTURE DE BEAUCE, Ste. Marie**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 38 SOCIÉTÉ D'AGRICULTURE DE VAUCHENIL**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 39 SOCIÉTÉ D'AGRICULTURE DE ST. HYACINTHE, St. Hyacinthe**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 40 SOCIÉTÉ D'AGRICULTURE DES DEUX MONTAGNES, St. Eustache**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 41 SOCIÉTÉ D'AGRICULTURE DE JACQUES CARTIER, Pointe Claire**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 42 SOCIÉTÉ D'AGRICULTURE DE ST. JEAN**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti
- 43 SOCIÉTÉ D'AGRICULTURE DE PORT-NEUF, Cap Santé**
Cereals and other products
Céréales et produits divers
Getreide und andere Producte
Cereali ed altri prodotti

- 44 OGILVIE, A. W., & CIE., Montreal
Hulled and pearled barley
Orge mondé et perlé
Gerstengraupen und Perlgraupen
Orzo sgusciato e perlato
- 45 PARKYN & BRODIE, Côte St. Paul
Corn flour
Farine de froment
Kornmehl
Farina di grano
- 46 STARCH COMPANY, Edwardburgh
Fecula
Fécules
Stärke
Fecola
- 47 PILE, JAMES, Whitby
Winter grown rye
Seigle d'hiver
Winterkorn
Segale cresciuta d'inverno
- 48 CLELAND, WILLIAM, Glanford
Barley and oats
Orge et avoine
Gerste und Hafer
Orzo ed avena
- 49 SOCIÉTÉ D'AGRICULTURE D'HERVILLE, St.
Athanase
Cereals
Céréales
Getreide
Cereali
- 50 ARCHAMBAULT, HON. P. U., L'Assomption
Cereals
Céréales
Getreide
Cereali
- 51 LETANG, C., Pointe Claire
Peas
Pois
Erbsen
Piselli
- 52 LAGUEUX, P., St. Romauld
Wheat
Blé
Weizen
Frumento
- 53 DUMAS, L., St. Henri
Peas
Pois
Erbsen
Piselli
- 54 VAUGHAN, W. H., St. Jean
Cereals
Céréales
Getreide
Cereali
- 55 THE CANADA LAND AND EMIGRATION COM-
PANY, Toronto
Spring-grown wheat
Blé de printemps
Sommerweizen
Frumento cresciuto in primavera

- 56 SMITH, JOHN, York
Spring wheat
Blé de printemps
Sommerweizen
Frumento di primavera
- 57 McNAUGHTON, E., Cobourg
Various fecula
Fécules diverses
Verschiedene Arten von Stärke
Fecole varie

CLASS LXVIII.

Bread and Pastry.
Produits de la Boulangerie et de la
Pâtisserie.
Brot und Backwerk.
Pane e Pasticceria.

(For detailed classification, see p. xxvi.)
(Voir le système de classification, p. xxvi.)
(Für detaillirte Classification, siehe Seite xxvi.)
(Vedasi il sistema di classificazione, p. xxvi.)

- 1 FITTS, CLARK, Montreal
Biscuits
Biscuits
Zwieback
Biscotti

CLASS LXIX.

Fatty Substances used as Food, &c.
Corps Gras Alimentaires, etc.
Essbare fette Substanzen etc.
Sostanze Grasse usate per Cibo, ecc.

(For detailed classification, see p. xxvi.)
(Voir le système de classification, p. xxvi.)
(Für detaillirte Classification, siehe Seite xxvi.)
(Vedasi il sistema di classificazione, p. xxvi.)

- 1 PARSON, H. R., Guelph
Cheese
Fromage
Käse
Formaggio
- 2 MORTON'S CHEESE FACTORY, MORTON
Cheese
Fromages
Käse
Formaggio
- 3 CAMPBELL, N. J., Nelson
Cheese
Fromages
Käse
Formaggio
- 4 HARRIS & RANNEY, Ingersoll
Cheese
Fromages
Käse
Formaggio

CLASS LXX.

Meat and Fish.
Viandes et Poissons.
 Fleisch und Fisch.
Carni e Pesce.

(For detailed classification, see p. xxvi.)
 (Voir le système de classification, p. xxvi.)
 (Für detaillirte Classification, siehe Seite xxvi.)
 (Vedasi il sistema di classificazione, p. xxvi.)

- 1 KINNER, L., Gananoque
 Hams—*Jambons*
 Schinken—*Prosciutti*
- 2 ANOYSSA, SIMON, Lac des Deux Montagnes
 smoked beavers' tails
Queues de castor fumées
 Geräucherter Biberschwanz
Code di castoro affumicate

CLASS LXXI.

Vegetables and Fruits.
Légumes et Fruits.
 Gemüse und Früchte.
Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)
 (Voir le système de classification, p. xxvi.)
 (Für detaillirte Classification, siehe Seite xxvi.)
 (Vedasi il sistema di classificazione, p. xxvi.)

- 1 ÉCOLE D'AGRICULTURE DE STE. ANNE, Ste. Anne
 Lentils—*Lentilles*
 Linsen—*Lenticchie*
- 2 RIDDELL, WALTER, Cobourg
 Lentils—*Lentilles*
 Linsen—*Lenticchie*

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Zuckerwerk.

Condimenti e Stimolanti; Zucchero e Confettura.

(For detailed classification, see p. xxvi.)
 (Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)
 (Vedasi il sistema di classificazione, p. xxvi.)

- 1 PIGEON, N., Montreal
 Crystallised sugar and syrup of maize
Sirap et sucre cristallisé de maïs
 Crystallisirter Zucker und Syrup von Türkischem Weizen
Zucchero cristallizzato e siroppo di granturco
- 2 REDPATH & FILS, Montreal
 Refined sugar—*Sucre raffiné*
 Raffinirter Zucker—*Zucchero raffinato*

- 3 PEARS, GEORGE, Toronto
 Spices and chicory
Épices et chicorée
 Gewürze und Cichorie
Spezie e cicoria

- 4 THIBAUT, OLIVIER, L'Islet
 Maple sugar
Sucre d'érable
 Ahornzucker
Zucchero d' acero

- 5 DUMONTIER, P., St. Barthelemy
 Maple sugar
Sucre d'érable
 Ahornzucker
Zucchero d' acero

- 6 SOCIÉTÉ D'AGRICULTURE DE BEAUCE, Ste. Marie
 Maple sugar
Sucre d'érable
 Ahornzucker
Zucchero d' acero

- 7 WENNING, HILL, & WARE, Montreal
 Syrups—*Sirops*
 Syrup—*Siroppi*

- 8 HAMEL, A., Quebec
 Maple syrup
Sirap d'érable
 Ahornsyrop
Zucchero d' acero

CLASS LXXIII.

Fermented Drinks.
Boissons Fermentées.
 Geistige Getränke.
Bevande Fermentate.

(For detailed classification, see p. xxvi.)
 (Voir le système de classification, p. xxvi.)
 (Für detaillirte Classification, siehe Seite xxvi.)
 (Vedasi il sistema di classificazione, p. xxvi.)

- 1 CANADIAN WINE GROWERS' COMPANY, Cookville
 Common red and white wines; congealed wines
Vins rouges et blancs ordinaires, et vins congelés
 Rothe und weisse Tischweine; gefrorene Weine
Vini comuni bianchi e rossi; vini congelati
- 2 PIGEON, NARCISSE, Montreal
 Sweet wine made from wild grapes
Vin de liqueur fait avec le raisin sauvage
 Süßer Wein von wilden Trauben
Vini dolci fatti con uve selvatiche
- 3 BILODEAU, MICHEL, St. Michel
 Liqueurs made from white, red, and black currants
Liqueurs de gadelles blanches, rouges, et noires
 Liqueure von weissen und rothen Johannisbeeren und Gichtbeeren
Liquori fatti di ribes bianchi, rossi e neri

- 4 WENNING, HILL, & WARE, Montreal
Liqueurs and cordials
Liqueurs et cordiaux
Liqueure und Magenstärkungen
Liquori e rosoli

GROUP VIII.—CLASS LXXIV.

Farm Buildings and Agricultural Works.

Spécimens d'Exploitations Rurales et d'Usines Agricoles.

Landwirthschaftliche Gebäude und Geräthe.

Costruzioni Rurali e Officine Agrarie.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

- 1 PAINCHAUD, DOCTEUR, Varennes
Horse rake—*Râteau à cheval*
Pferderechen—*Rastrello a cavalli*

- 2 MASSEY, H. A., Newcastle
Mowing and reaping machine
Faucheuse et moissonneuse mécanique
Mäh- und Erntemaschine
Macchina falciatrice e mietitrice

CLASS LXXXI.

Useful Insects.

Insectes Utiles.

Nützliche Insecten.

Insetti Utili.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

- 1 VALEQUET, T., St. Hilaire
Beehives—*Ruches*
Bienenstöcke—*Arnia*

GROUP X.—CLASS LXXXIX.

Apparatus and Methods used in the Instruction of Children.

Matériel et Méthodes de l'Enseignement des Enfants.

Apparate und Methoden für den Unterricht der Kinder.

Apparati e Metodi usati nell'Istruzione dei Fanciulli.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

- 1 COLLÈGE DE STE. ANNE, Ste. Anne
Plan in relief of school buildings
Plan-relief de bâtiments scolaires
Reliefkarte der Schulgebäude
Pianta in rilievo di costruzione di scuola

- 2 DÉPARTEMENT DE L'INSTRUCTION PUBLIQUE
DU HAUT CANADA, Toronto
Apparatus for schools
Appareils à l'usage des écoles
Apparate für Schulen
Apparati scolastici

- 3 DÉPARTEMENT DE L'INSTRUCTION PUBLIQUE
DU BAS CANADA, Montreal
Apparatus for schools
Appareils à l'usage des écoles
Apparate für Schulen
Apparati scolastici

- 4 ARDOUIN, C. J., Quebec
Specimens of calligraphy
Spécimens de calligraphie
Calligraphische Proben
Saggi di calligrafia

CLASS XC.

Libraries and Apparatus used in the Instruction of Adults, &c.

Bibliothèques et Matériel de l'Enseignement donné aux Adultes, etc.

Bibliotheken und Apparate für den Unterricht der Erwachsenen.

Biblioteche ed Apparati usati nell'Istruzione degli Adulti, ecc.

(For detailed classification, see p. xxix.)

(Voir le système de classification, p. xxix.)

(Für detaillirte Classification, siehe Seite xxix.)

(Vedasi il sistema di classificazione, p. xxix.)

- 1 DÉPARTEMENT DE L'AGRICULTURE, DES ARTS,
ET DE LA STATISTIQUE, Outaouais
Books, pamphlets, and publications
Livres, brochures, et publications
Bücher, Flugschriften und Publicationen
Libri, opuscoli, e pubblicazioni

- 2 CHAUVEAU, L'HONORABLE P. J. O., Directeur
de l'Instruction Publique dans le Bas Canada,
Montreal
School books
Livres d'école
Schulbücher
Libri scolastici

- 3 RYERSON, LE RÉVÉREND DOCTEUR, Directeur
de l'Instruction Publique pour le Haut
Canada, Toronto
School books
Livres d'école
Schulbücher
Libri scolastici

- 4 LOVELL, JOHN, Montreal
School books
Livres d'école
Schulbücher
Libri scolastici

CLASS XCI.

Furniture, Clothing, &c., remarkable for useful Qualities combined with Cheapness.

Meubles, Vêtements, etc., distingués par les Qualités utiles, unies au bon marché.

Möbel, Kleidung etc., bemerkenswerth wegen ihrer Nützlichkeit und Wohlfeilheit.

Mobilia, Vestiario, ecc., notevoli per Qualità utili combinate all' Economia.

(For detailed classification, see p. xxix.)

(Voir le système de classification, p. xxix.)

(Für detaillirte Classification, siehe Seite xxix.)

(Vedasi il sistema di classificazione, p. xxix.)

1 BOUCHARD, MME., St. Valier

Cloth and other articles made by the different members of a family at their own home

Étoffe et autres objets manufacturés à la maison avec le secours de la famille

Tuch und andere Artikel, von verschiedenen Mitgliedern einer Familie zu Hause gemacht

Panno ed altri oggetti fatti dai diversi membri di una famiglia nelle proprie case

2 JACQUES & HAY, Toronto

Cheap furniture—*Meubles à bon marché*

Wohlfeile Möbel—*Mobilia economica*

3 MCGARVEY, OWEN, Montreal

Chairs for exportation

Chaises destinées à l'exportation

Stühle für Exportation

Sedie per esportazione

CLASS XCIV.

Articles of all kinds manufactured by Skilled Workmen.

Produits de toute sorte fabriqués par des Ouvriers Chefs de Métier.

Gegenstände aller Art, verfertigt von geschickten Arbeitern.

Oggetti di tutti i generi fabbricati da Operai Intelligenti.

(For detailed classification, see p. xxix.)

(Voir le système de classification, p. xxix.)

(Für detaillirte Classification, siehe Seite xxix.)

(Vedasi il sistema di classificazione, p. xxix.)

1 TOURVILLE, CHARLES, Montreal

Boots and shoes made by hand

Chaussures fabriquées à la main

Durch Handarbeit verfertigte Stiefeln und Schuhe

Stivali e scarpe fatte a mano

CAPE OF GOOD HOPE.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 BOWLER, T. W., Cape Town
 View of Cape Town, with the Table Mountain
Vue de Cape Town, avec le Mont de la Table
 Ansicht von Cape Town, mit dem Tafelberge
Veduta di Cape Town, col Monte Table
- 2 ANDERSON, C., Swellendam
 Wild flowers—*Fleurs sauvages*
 Wilde Blumen—*Fiori selvatici*

GROUP II.—CLASS VI.

Printing and Books.
Produits d'Imprimerie et de Librairie.
 Buchdruckerkunst und Bücher.
Stampa e Libri.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 THE LOCAL COMMITTEE, Cape of Good Hope
 Illustrated works on South Africa; periodical publications
Ouvrages illustrés sur l'Afrique du Sud; publications périodiques
 Illustrierte Werke über Süd-Afrika; periodische Schriften
Opere illustrate sull'Africa meridionale, pubblicazioni periodiche

CLASS VII.

Paper, Stationery; Binding.
Objets de Papeterie; Reliures.
 Papier, Papierwaaren; Einbände.
Carta, Cartoleria; Rilegatura.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 SAUL, SOLOMON, & Co., Cape Town
 Specimens of colonial bookbinding
Spécimens de reliures
 Proben von Einbänden aus der Colonie
Saggi di rilegatura della colonia

CLASS IX.

Photographic Proofs and Apparatus.
Épreuves et Appareils de Photographie.
 Photographische Proben und Apparate.

Prove e Apparatî Fotografici.

(For detailed classification, see p. xv.)
 (Voir le système de classification, p. xv.)
 (Für detaillirte Classification, siehe Seite xv.)
 (Vedasi il sistema di classificazione, p. xv.)

- 1 ATHERSTONE, W. G., M.D., Graham's Town
 Photographs of scenery, Eastern Province
Épreuves photographiques, vues de la Province de l'Est
 Photographien von Landschaften aus der östlichen Provinz
Fotografie delle campagne, Provincia Orientale
- 2 CHAPMAN, J., Cape Town
 Photographs of scenery, wild animals, plants
Épreuves photographiques de paysages, animaux sauvages, plantes
 Photographien von Landschaften, wilden Thieren, Pflanzen
Fotografie delle campagne, animali selvatici, piante
- 3 BARNARD, J., Cape Town
 Photographs of scenery and portraits
Épreuves photographiques de paysages; portraits
 Photographien von Landschaften und Portraits
Fotografie delle campagne e ritratti
- 4 SAUL, SOLOMON, & Co., Cape Town
 Photographs of scenery and portraits
Épreuves photographiques de paysages; portraits
 Photographien von Landschaften und Portraits
Fotografie delle campagne e ritratti

CLASS XIII.

Maps, and Geographical and Cosmographical Apparatus.
Cartes et Appareils de Géographie et de Cosmographie.

Karten, geographische und cosmographische Apparate.
Mappe e Apparatî Geografici e Cosmografici.

(For detailed classification, see p. xvi.)
 (Voir le système de classification, p. xvi.)
 (Für detaillirte Classification, siehe Seite xvi.)
 (Vedasi il sistema di classificazione, p. xvi.)

- 1 Plan, in relief, of the harbour works in the Cape Colony
Plan, en relief, des ports en construction de la Colonie
 Reliefkarte der Hafenwerke in der Cap-Colonie
Pianta in rilievo di lavori di porto nella Colonia del Capo

- 2 HARBOUR BOARD, Cape Town
 Table Bay—*La Baie de la Table*
 Tafelbai—*Table Bay*

- 3 JACKSON, H., Cape Town
 Knysna—*Knysna*
 Knysna—*Knysna*

- 4 McKAY, G., East London
 East London—*East London*
 East London—*East London*

- 5 HARBOUR BOARD Kowie
 Kowie—*Kowie*
 Kowie—*Kowie*

GROUP III.—CLASS XIV.

Fancy Furniture.
Meubles de Luxe.
 Luxusböbel.
Mobilia di Lusso.

(For detailed classification, see p. xvi.)

(*Voir le système de classification, p. xvi.*)

(Für detaillirte Classification, siehe Seite xvi.)

(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 EXCELDON, J., Cape Town
 Table of colonial woods, inlaid
Table incrustée de bois indigènes
 Eingeleger Tisch aus Hölzern der Colonie
Tavola dei legni della colonia, intarsiati
- 2 ARDERNE, R. H., Cape Town
 Music stand—*Pupitre à musique*
 Musikgestell—*Leggio da musica*
- 3 MOULTON, R., Swellendam
 Inlaid cabinet, workboxes
Meuble incrustée, boîtes à ouvrage
 Eingeleger Schrank, Arbeitskästchen
Stipo intarsiato, cassette da lavoro

GROUP IV.—CLASS XXXI.

Silk and Silk Manufactures.
Soies e Tissus de Soies.
 Seide und Seidenwaaren.
Seta, e Seta Manifatturata.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

- 1 HIDDINGH, DR., Newlands
 Raw silk—*Soies grèges*
 Rohe Seide—*Seta cruda*
- 2 POVALL, MR., Stellenbosch
 Raw silk—*Soies grèges*
 Rohe Seide—*Seta cruda*

- 3 BYL VANDER, M.P., Cape Town
 Raw silk—*Soies grèges*
 Rohe Seide—*Seta cruda*

CLASS XXXV.

Clothing for both Sexes.
Habillements des deux Sexes.
 Kleidungsstücke für beide Geschlechter.
Abbigliamento per ambo i Sessi.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

- 1 GAMBLE, M. A., Fort Beaufort
 Set of muff, boa, and cuffs, of vultures' down;
 bonnets, exhibiting snake skins and eagles'
 down as articles of decoration
Manchon, boa, et manchettes de duvet de vautour;
chapeaux ornés de peaux de serpents et de
duvet d'aigles
 Muff, Boa und Manschetten von Geierflaum;
 Hüte, verziert mit Schlangenhäuten und
 Adlerflaum
Formimento di manicotto, boa, e manichini di
piuma d'avvoltoio

CLASS XXXVII.

Portable Weapons.
Armes Portatives.
 Tragbare Waffen.
Armi Portatili.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

- 1 DE VILLIERS, J. N. P., Paarl
 Mantatee club—*Massue de Mantatee*
 Mantatee-Keule—*Clava Mantatee*
- 2 CRAPPER, —, Cape Town
 Damara bow and arrows, with quiver; mace
 of rhinoceros' horn
Arc, flèches et carquois de Damara; masse de
corne de rhinocéros
 Bogen und Pfeile, mit Köcher, von Damara;
 Keule aus Rhinoceroshorn
Arco, dardi, e foretra Damara; mazza di corno
di rinoceronte
- 3 ARNOT, D., Colesberg
 Bushman bow and poisoned arrows, assegais
 and clubs of Baralong tribes
Arc et flèches vénéneuses de Bushman; assegais
et massues des Races Baralong
 Bogen und vergiftete Pfeile der Buschmänner,
 Assegais (Speere) und Keulen der Baralong-
 Stämme
Arco e dardi avvelenati, zagaglia e clave degli
uomini di macchia, tribù Baralong

- 4 BOWKER, O., Bloemfontein
Assegais, clubs, and shields of Basutos
Assegais, massues et boucliers de Basutos
Assegais, Keulen und Schilde der Basutos
Zagaglie, clave e scudi dei Basuto
- 5 WARNER, J. C., Transkei
Presented by the paramount chief, Fakee—
Assegais and other weapons of Amagalika-Kaffirs
Assegais et autres armes des Kaffres Amagalika, présentées par le très-haut chef, Fakee
Geschenk vom dem ersten Häuptling Fakee :
Assegais und andere Waffen der Amagalika-Kaffern
Zagaglie ed altre armi dei Caffri Amagalika, regalate dal capo supremo, Fakee

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Bergbau- und Hüttenproducte.
Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

- 1 HAYWARD, T., Swellendam
Rocks and minerals—*Roches et minéraux*
Felsarten und Mineralien—*Roccie e minerali*
- 2 CAPE COPPER MINING COMPANY, Namaqualand
Copper ores (with specimens illustrative of smelting process)
Minerais de cuivre (avec spécimens du procédé de fonte)
Kupfererze (mit Exemplaren zur Erklärung des Hüttenprocesses)
Minerali di rame (con saggi illustrativi del processo della fusione)
- 3 DE PASS & Co., Cape Town
Copper ores—*Minerais de cuivre*
Kupfererze—*Minerali di rame*
- 4 ANDREWS, C., Port Elizabeth
Copper ores—*Minerais de cuivre*
Kupfererze—*Minerali di rame*
- 5 MEURANT, L. H., JUN., Burghersdorp
Coal (lignite)—*Houille (lignites)*
Kohle (Lignite)—*Carbon fossile (lignite)*
- 6 AURET, W. H., Paarl
Manganese—*Manganèse*
Mangan—*Manganese*
- 7 REX, J., Knysna
Clays of Knysna district
Argiles tirées du district de Knysna
Thon vom Knysna-District
Argille del distretto di Knysna
- 8 LOCAL COMMITTEE, Cape Town
Soils and sands—*Sols et sables*
Ackererde und Sand—*Terreni e sabbie*

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der davon abhängigen Geschäftszweige.

Prodotti della Coltura delle Foreste e delle Industrie che ne derivano.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

- 1 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY, Cape Town
Native woods, 120 specimens
Bois indigènes, 120 spécimens
Einheimische Hölzer, 120 Exemplare
Legni indigeni, 120 campioni
- 2 REX, J. G., Knysna
Bark of saffraan, assigai, and yellow wood, and Nautigara leaves for tanning
Écorces de saffraan, d'assigai, et de bois jaune et feuilles de Nautigara pour le tannage
Rinde von Saffran, Assigai und Gelbholz und Nautigara-Blätter zum Gerben
Scorza di saffraan, assigai, e legno giallo, e foglie di Nautigara per conciare
- 3 PROCTOR, J. J., Paarl
Tanning barks—*Écorces tannantes*
Rinden zum Gerben—*Scorze tannine*
- 4 BARRY, J. J., Swellendam
Gum—*Gomme*
Gummi—*Gomma*
- CLASS XLII.
- Products of Shooting, Fishing, and of the Earth, obtained without Culture.
Produits de la Chasse, de la Pêche et des Cueillettes.
- Producte der Jagd, des Fischfangs und uncultivirte Erzeugnisse der Erde.
- Prodotti della Caccia, della Pesca e della Terra ottenuti senza Coltura.*
- (For detailed classification, see p. xx.)
(Voir le système de classification, p. xx.)
(Für detaillirte Classification, siehe Seite xx.)
(Vedasi il sistema di classificazione, p. xx.)
- 1 LOCAL COMMITTEE, Cape Town
Mammalia (stuffed), leopard, antelopes, &c.; skins, lion, leopard, &c.
Mammifères (empailés), leopard, antilopes, etc.; peaux de lion, de leopard, etc.
Säugethiere (ausgestopft), Leopard, Antelopen etc.; Löwen-, Leopard- etc. Häute
Mammiferi (impagliati), leopardo, antelopi, ecc.
- 2 BENJAMIN, J., Graham's Town
Leopards' skins—*Peaux de léopards*
Leopardhäute—*Pelli di leopardo*

- 3 REX, J. G., Knysna
Birds (skins of), reptiles, snakes, in spirits
Peaux d'oiseaux, reptiles, serpents conservés dans l'alcool
Vögel (Bälge), Reptilien, Schlangen in Spiritus
Uccelli (pelli di), rettili, serpenti, nello spirito
- 4 BENSUSAN, M., Cape Town
Ostrich feathers—*Plumes d'autruche*
Straussfedern—*Penne di struzzo*
- 5 BENJAMIN, J., Graham's Town
Ostrich feathers—*Plumes d'autruche*
Straussfedern—*Penne di struzzo*
- 6 KURELLER, J., Cape Town
Ostrich feathers—*Plumes d'autruche*
Straussfedern—*Penne di struzzo*
- 7 MUNIK, J. B., Cape Town
Ostrich feathers—*Plumes d'autruche*
Straussfedern—*Penne di struzzo*
- 8 CRAPPER, J., Cape Town
Karosses, elephant's foot and tail, penguin skin table covers, rhinoceros' skin, whips and sticks, horns, &c.
Karosses, pied et queue d'éléphant, tapis de table faits de peaux de penguin, peau de rhinocéros, fouets, cannes, cornes, etc.
Decken aus Fell, Elefantenfuss und Schwanz, Tischdecken aus Pinguinhaut, Rhinoceroshaut, Peitschen und Spazierstöcke, Hörner etc.
Karosse, piedi e code d'elefante, tappeti da tavola di pelli di penguin, pelli di rinoceronte, fruste e bastoni, ecc.
- 9 BENJAMIN, J., Graham's Town
Karosses—*Karosses*
Felldecken—*Karosse*
- 10 KURELLA, J., Cape Town
Karosses—*Karosses*
Felldecken—*Karosse*
- 11 LOCAL COMMITTEE, Cape Town
Ivory tusks, ivory portions of old tusk dug up where the elephant has not been found since the occupation of the colony by Europeans
Défenses d'ivoire, parties de défenses déterrées dans un endroit où l'éléphant n'a pas été trouvé depuis l'occupation de la colonie par les Européens
Elephanten- (Stoss-) Zähne, Theile von alten Zähnen, ausgegraben in Gegenden, wo der Elephant seit der Besitznahme der Colonie durch Europäer nicht gefunden worden ist
Denti d'avorio, avorio pezzi di denti antichi scavati dove non si trovano elefanti dal tempo dell'occupazione della colonia dagli Europei
- 12 DE PASS & Co., Cape Town
Products of fishing, whale oil, shark oil, seal oil, sea elephant oil
Produits de la pêche, huiles de baleine, de requin, de phoque, d'éléphant marin
Produkte des Fischfangs, Wallfischöl, Hai-fischöl, Seehundsöl, Seeelephantenöl
Prodotti della pesca, olio di balena, olio di squalo, olio di foca, olio d'elefante marino
- 13 WICKS, P., Cape Town
Sponge—*Éponge*
Badeschwamm—*Spugna*

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile Conservation.

Leicht conservirbare Agricultur-Producte (die nicht zur Nahrung dienen).

Prodotti d'Agricoltura (non usati per Cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

- 1 ATHERSTONE, W. G., M.D., Graham's Town
Wool, useful barks and filaments
Laine, écorces utiles et filaments
Wolle, nützliche Rinden und Fasern
Lana, scorze e fibre utile
- 2 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY, Cape Town
Wool, tobacco—*Laine, tabacs*
Wolle, Tabak—*Lana, tabacco*
- 3 BENJAMIN, J., Graham's Town
Wool—*Laine*
Wolle—*Lana*
- 4 MARAIS, W. G., Drakenstein
Cotton—*Coton*
Baumwolle—*Cotone*
- 5 SPYRON, W., JUN., King William's Town
Cotton, hemp—*Coton, chanvre*
Baumwolle, Hanf—*Cotone, canapa*
- 6 MILLS, CAPTAIN, King William's Town
Hemp—*Chanvre*
Hanf—*Canapa*
- 7 HIDDINGH, DR., Newlands
Silk (cocoons), beeswax, myrtleberry wax
Cocons de vers à soie, cire d'abeilles, cire de baies de myrte
Seide (Cocoons); Bienenwachs, Myrthenbeerenwachs
Seta (bozzoli), cera di api, cera di bacche di mirto
- 8 MUNNIK, J., Barry, Cape Town
Tobacco, native tinder
Tabacs, amadou naturel
Tabak, landesgebräuchlicher Zünder
Tabacco, esca indigena
- 9 GILSTAIN, E., King William's Town
Lichens used as dyes
Lichens employés pour la teinture
Farrenkräuter, zum Färben gebraucht
Licheni usati per tinte
- 10 FITZGERALD, J. P., M.D., King William's Town
Dyeing materials, with specimens of dyed silk
Substances tinctoriales, et spécimens de soie teinte
Farbmaterialien mit Proben von gefärbter Seide
Materiali tintorj, con saggi di sete tinte

- 11 WICKS, P., Cape Town
Useful barks and filaments
Écorces et filaments utiles
Nützliche Rinden und Fasern
Scorze e fibre utili
- 12 REX, J. G., Knysna
Useful barks and filaments
Écorces et filaments utiles
Nützliche Rinden und Fasern
Scorze e fibre utili
- 13 COOK, J. T., Graham's Town
Fibre of the *Agave americana* and *Phormium tenax*, with specimens of work
Fibres de l' Agave americana et du Phormium tenax; spécimens de manufactures avec ces fibres
Fasern der *Agave americana* und des *Phormium tenax*, mit Arbeit daraus
Fibra di Agave americana e di Phormium tenax, con saggi di lavori

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Producte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(*Voir le système de classification, p. xx.*)

(Für detaillirte Classification, siehe Seite xx.)

(*Vedasi il sistema di Classificazione, p. xx.*)

- 1 LANGE & MOSEL, Uitenhage
Sudorate of potash, or suint carbonate of potash, antifriction of grease
Sudorate de potasse (suint carbonate de potasse) graisse pour adoucir les frottements
Schweissssaures Kali, oder flüssiges kohlen-saures Kali, reibungsverhindernde Schmiere
Sudorato di potassa (o unto carbonato di potassa) antiattrito di grasso
- 2 AUREL, W. H., Paarl
Argol—*Tartre brut*
Weinstein—*Gruma*
- 3 DE VILLIERS, J. N. P., Paarl
Soap (Boer)—*Savon (boer)*
Seife (Boer)—*Sapone (boer)*
- 4 SMITHERS, J., Cape Town
Soap (boer), tallow—*Savon (boer), suif*
Seife (Boer), Talg—*Sapone (boer), sevo*
- 5 LOCAL COMMITTEE, Cape Town
Ganna ash—*Cendres de ganna*
Ganna-Asche—*Cenere di ganna*
- 6 REX, J. G., Knysna
Castor oil seed—*Graines de ricin*
Samen von der Christpalme—*Seme di ricino*
- 7 BARRY, J. J., Swellendam
Aloes—*Aloès*
Aloe—*Aloc*

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(*Voir le système de classification, p. xxi.*)

(Für detaillirte Classification, siehe Seite xxi.)

(*Vedasi il sistema di classificazione, p. xxi.*)

- 1 LOUW, M. J., Cape Town
Raw and tanned hides and dressed skins
Peaux vertes, tannées et apprêtées
Rohe und gegerbte Häute und appretirte Felle
Pelli greggie e conciate e preparate

GROUP VI.—CLASS XLVIII.

Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests; Farm Buildings and Agricultural Works.

Matériel et Procédés des Exploitations Rurales et Forestières; Spécimens d'Exploitations Rurales et d'Usines Agricoles.

Ackerbaugeräthe und Verfahren, angewandt in der Cultur der Felder und Wälder; landwirthschaftliche Gebäude und Arbeiten.

Apparati e Processi Agrari usati nella Coltivazione dei Campi e delle Foreste; Costruzioni Rurali e Officine Agrarie.

(For detailed classification, see p. xxi.)

(*Voir le système de classification, p. xxi.*)

(Für detaillirte Classification, siehe Seite xxi.)

(*Vedasi il sistema di classificazione, p. xxi.*)

- 1 LOCAL COMMITTEE, Cape Town
Model of Cape waggon
Modèle de chariot du Cap
Modell eines Wagens vom Cap
Modello di carriaggio del Capo
- 2 DE PASS & Co., Cape Town
Guano—*Guano*
Guano—*Guano*

CLASS XLIX.

Apparatus used in Shooting, Fishing, &c.

Engins et Instruments de la Chasse, de la Pêche et des Cueilletes.

Apparate, gebraucht zur Jagd, zum Fischfang etc.

Apparati usati alla Caccia, Pesca, ecc.

(For detailed classification, see p. xxii.)

(*Voir le système de classification, p. xxii.*)

(Für detaillirte Classification, siehe Seite xxii.)

(*Vedasi il sistema di classificazione, p. xxii.*)

1 CRIGHTON, H., Cape Town

Shooting equipment suitable for South Africa
Équipement de chasse propre à l'Afrique du Sud
 Jagdausrüstung, für Süd-Afrika passend
Equipaggio da caccia adattato pell' Affrica meridionale

CLASS LXII.

Harness and Saddlery.

Bourrellerie et Sellerie.

Pferdeggeschirr und Sattlerwaaren.

Fornimenti da Cavalli e Selleria.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 CRIGHTON, H., Cape Town

Saddle adapted for hunting purposes in South Africa

Selle propre à la chasse dans l'Afrique du Sud

Sich für die Jagd in Süd-Afrika eignende Sättel
Sella adattata all' uso di caccia nell' Affrica meridionale

CLASS LXV.

Civil Engineering, Public Works, and Architecture.

Matériel et Procédés du Génie Civil, des Travaux Publics et de l'Architecture.

Civilingenieurkunst, öffentliche Bauten und Architectur.

Genio Civile, Lavori Pubblici e Architettura.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 FORD, W., Cape Town

Building stones—*Pierres à bâtir*

Bausteine—*Pietre da costruzione*

2 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY,

Cape Town

Timber—*Bois de charpente*

Bauholz—*Legname da costruzione*

GROUP VII.—CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie et de la Pâtisserie.

Brot und Backwerk.

Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY

Cape Town

Wheat and other cereals, flour

Blé et autres céréales, farine

Weizen und anderes Getreide, Mehl

Fumento ed altri cereali, fiore

CLASS LXIX.

Fatty Substances used as Food ; Milk and Eggs.

Corps Gras Alimentaires ; Laitages et Œufs.

Fette, die zur Nahrung gebraucht werden.

Sostanze Grasse usato per Cibo ; Latte e Uova.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LOCAL COMMITTEE, Cape Town

Sheep's tail oil, eggs of penguin, sea mew, &c.

Huile extraite des queues de moutons, œufs de penguin, de mouette, etc.

Oil von Schafschwänzen, Eier vom Penguin (Fettgans), Seemöve etc.

Olio di coda di pecora, uova di penguin, di gabbiano, ecc.

CLASS LXX.

Meat and Fish.

Vianees et Poissons.

Fleisch und Fische.

Carne e Pesce.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LOCAL COMMITTEE, Cape Town

Dried meat (Biltong)

Viande conservée (Biltong)

Getrocknetes Fleisch (Biltong)

Carne salata (Biltong)

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruits.

Gemüse und Früchte.

Vegetabili e Frutte.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CLARENCE, R., Cape Town

Dried fruits, raisins, apples, apricots, quince, mebos, almonds, currants, figs, &c.

Fruits secs, raisins, pommes, abricots, coings, mebos, amandes, gadelles, figues, etc.

Getrocknete Früchte, Rosinen, Äpfel, Aprikosen, Quitten, Mebos, Mandeln, kleine Rosinen, Feigen etc.

Frutta secche, zibibo, mele, albicocche, cotogni, mebos, mandorle, passolina, fichi, ecc.

CLASS LXXII.

Condiments and Stimulants ; Sugar and Confectionery.

Condiments et Stimulants ; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel ; Zucker und Zuckerwerk.

Condimenti e Stimolanti ; Zuccheri e Confetture.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 GIBB, J., Cape Town

Cayenne pepper, chutney

Poivre de Cayenne, chutney

Spanischer Pfeffer, Chutney

Pepe di Caienna, chutney

2 ROSER, R., M.D., Genadendal

Bosches tea (Cyclopea)

Thé de bosches (Cyclopea)

Bosches-Thee (Cyclopea)

Tè di bosches (Cyclopea)

3 AURET, W. H., Paarl

Bosches tea—*Thé de bosches*

Bosches-Thee—*Tè di bosches*

4 MEYES, A., Mulders Vley

Preserved fruits—*Fruits conservés*

Eingemachte Früchte—*Frutta in conserva*

5 VOLSTEIJT, J. P., Cape Town

Preserved fruits—*Fruits conservés*

Eingemachte Früchte—*Frutta in conserva*

6 REX, J. G., Knysna

Preserved fruits, wild berries, liqueurs, bosches tea

Fruits conservés, baies sauvages, liqueurs, thé de bosches

Eingemachte Früchte, wilde Beeren, Liqueure, Bosches-Thee

Frutta in conserva, bacche selvatiche, liquori, tè di bosches

CLASS LXXIII.

Fermented Drinks—*Boissons Fermentées*

Geistige Getränke—*Bevande Fermentate*

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CLOETE J. P., Constantia

Sweet wines (Constantia)

Vins de liqueur (Constantia)

Süsse Weine (Constantia)

Vini dolci (Constantia)

2 VAN REUEN, S., & Co., High Constantia

Sweet wines (Constantia)

Vins de liqueur (Constantia)

Süsse Weine (Constantia)

Vini dolci (Constantia)

3 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY,

Cape Town

Dry wines—*Vins secs naturels*

Trockene Weine—*Vini asciutti*

GROUP VIII.—CLASS LXXXI.

Useful Insects.—*Insectes Utiles.*

Nützliche Insecten.—*Insetti Utili.*

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

1 GIBB, J., Cape Town

Cochineal—*Cochenilles*

Cochenillen—*Cocciniglia*

GROUP IX.—CLASS LXXXIV.

Horticulture.—*Horticulture.*

Gartencultur.—*Orticoltura.*

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

1 ROSER, R., M.D., Genadendal

Everlasting flowers, nine species

Immortelles, neuf espèces

Strohblumen, neun Gattungen

Fiori eterni, nove specie

2 HAW, C., Caledon

Everlasting flowers, ten species

Immortelles, dix espèces

Strohblumen, zehn Gattungen

Fiori eterni, dieci specie

3 REX, J. G., Knysna

Everlasting flowers, four species

Immortelles, quatre espèces

Strohblumen; vier Gattungen

Fiori eterni, quattro specie

4 JACKSON, Miss M. J., Howo Hock

Everlasting flowers, six species, also ornamental work in baskets, crosses, &c.

Immortelles, six espèces, et corbeilles, croix, etc., d'ornement

Strohblumen, sechs Gattungen, ebenso geschmackvolle Körbchen, Kreuze etc.

Fiori eterni, sei specie, e lavori d'ornamento in panieri croci, ecc.

GROUP X.—CLASS XCII.

Native Clothing.

Costumes Populaires.

Kleidung der Eingebornen.

Abbigliamenti Indigeni.

(For detailed classification, see p. xxix.)

(Voir le système de classification, p. xxix.)

(Für detaillirte Classification, siehe Seite xxix.)

(Vedasi il sistema di classificazione, p. xxix.)

1 LOCAL COMMITTEE, Cape Town

Native dresses and implements of South

African tribes, exhibited on lay figures

Costumes et instruments des Races de l'Afrique du Sud, exposés sur des mannequins

Kleidung und Geräthe der Süd-Afrikanischen

Stämme, auf Gliederpuppen ausgestellt

Abiti ed attrazzi indigeni delle tribù dell'Africa meridionale esposti su manichini

INDIA.

NOTE.—This Catalogue now comprehends the whole of the articles forwarded from India. The collections sent on this occasion have, however, so far exceeded the limits for which space could be obtained that it has only been possible to exhibit a *selection*.

A collection of casts and photographs of Indian architecture, illustrative of the 'History of Labour' in India, has been placed at the end of the gallery, with the works of early art exhibited by Great Britain. (See *ante*, p. 27.)

GROUP I.

Works of Art.

CLASS II.

Paintings and Drawings.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Portraits of His Highness and of natives, &c.
- 2 THE CHIEF OF BIJAWUR, Bundelcund, Nowgong
Specimens of pictures
- 3 FROM BENARES
Set of paintings on talc, illustrating various classes of the people
- 4 POLITICAL AGENT, Marwar
Inlaid and enamel work
- 5 FROM PATNA
Twenty-one pictures on talc; fifteen pictures on paper, illustrating various classes of the natives
- 6 ISMAIL KHAN, Delhi
Paintings on ivory
- 7 MAZAR ALI KHAN, Delhi
Paintings on ivory
- 8 MUZHUR ALI SHAH, Delhi
Paintings on ivory
- 9 MUNICIPAL COMMITTEE, Punjab
Paintings on ivory
- 10 FROM DHARWAR
Picture drawn by a native of Havery
- 11 FROM POONA
Native pictures
- 12 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.
Miniature portrait of His Highness; ditto of His Highness the First Prince; ditto of H. Newill, Esq., C.S., Resident at Court of Travancore

- 13 GOVINDA RAJOO, Trichinopoly
Paintings on talc; paintings for brooches, studs, &c.
- 14 LLOYD, CAPTAIN W., Deputy Commissioner, Rangoon
Portrait of a Ghyeik and wife; painted by Lieut. Elton
- 15 BROWN, MRS. READ, London
Coloured drawings of Indian plants, &c.

CLASS III.

Sculpture and Niello Work, &c.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Marble statue of a Parsee, carvings in stone
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
A collection of statuary illustrative of Hindoo mythology, in stone, and a series of animal figures, carved in stone
- 3 BHURTPORE DURBAR
An elephant, with howdah and driver, carved in ivory; a 'ruth,' or native carriage, carved in ivory
- 4 THE JAGEERDAR OF PAHRA, per the Assistant Political Agent, Bundelkund
Cup of stone, inlaid with gold
- 5 FROM GOONAH, Central India
Two stone mortars and pestles
- 6 COMMISSIONER OF GYAH
Ten small sculptures of animals, in stone
- 7 THE COLLECTOR OF MIRZAPORE
Carved soapstone
- 8 POLITICAL ASSISTANT, Nagode
White marble plates and boxes, inlaid with coloured stones; iron box inlaid with gold; eight carved ivory figures, of kinds

9 OFFICIATING COLLECTOR, Purneah

Four specimens of Bidree ware

10 FROM BHAUGULPORE

Three hookahs, with apparatus, of Bidree ware

11 COMMISSIONER, Raj Division, Moorshedabad

2 carvings in ivory of agricultural implements; 6 ditto of native boats; 20 ditto model figures; 5 ditto Hindu deities; 14 ditto animals; 16 ditto various vehicles for conveyance.

12 FROM SARUN

Five marble cups; two marble vessels with covers; marble dish, &c.

13 FROM LAHORE, per Central Committee, Punjab

A finely-carved dark jade cup, a white ditto; a large bowl cut as thin as porcelain, of fine grey jade, carved all over, and with small cups attached at the sides

14 FROM DELHI, per Local Committee

Various carvings in ivory

15 FROM BOMBAY

An ivory bust

16 FROM HOORLEE, Dharwar

Various idols

17 FROM NASSICK, Ahmednuggur

Brass idols

18 FROM POONA

Brass images of Gunputtee, Maroottee, &c.

19 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE

Carvings in ivory

20 THEOBALD, Dr., British Burmah

Brass and wood images

CLASS IV.**Architectural Designs and Models.****1 HIS HIGHNESS THE MAHARAJAH OF BENARES**

Model of the temple of Mohadib in Benares

2 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State

Model of Hindu temple, with attendants

3 FROM MEERUT

Carved stone screen-work

4 FROM SARUN

Two designs in marble

CLASS V.**Engravings and Lithography.****1 MOONSHEE NEWUL KISHNA, per E. Beecher, Esq., Commissioner of Oude**

Copy of Persian lithography

2 FROM HYDRABAD, Sind

Portrait of Sire Krishna, Nanak Shah, &c.

GROUP II.**Apparatus and Applications of the Liberal Arts.****CLASS VI.****Printing and Books.****1 THE JAGEERDAR OF ALLIPORE, per the Assistant Political Agent, Bundelkund**

Specimens of caligraphy

2 THE CHIEF OF BARNEE, per the Assistant Political Agent, Bundelkund

Specimen of caligraphy

3 HER HIGHNESS THE SECUNDR A BEGUM OF BHOPAL, G.C.S.I.

Specimens of ornamental writings in Persian, &c.

4 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore

Specimens of caligraphy in Dewanagri, Marathee, Hindee, and Persian characters

5 THE JHALLAWAR CHIEF

Caligraphy in Sanscrit, Hindee, and Marwarree characters

6 THE CHIEF OF PUNWAH, per the Assistant Political Agent, Bundelkund

Persian book, by Hakeem Sunnai, a medical work, very rare

7 THE TONK DURBAR

Specimens of Persian caligraphy

8 THE CHIEF OF BIJAWUR

Specimens of caligraphy from Nowgong

9 THE RAJAH OF DHAR, per Major Pollard, Malwa

Specimens of caligraphy

10 STUREED HUSSAIN MOONSHEE, Chutterpore

A medical work in Persian

11 HIS HIGHNESS THE MAHARAJAH OF REWAH, per Political Assistant of Nagode

Specimen of caligraphy, being an almanac in Dewanagri

12 BOSE, J. C., Calcutta

Eight books, in Bengalee

13 POLITICAL AGENT, Bhopal

Specimens of Persian writing

14 COMMISSIONER OF BURDWAN

Twenty-seven examples of periodical and other publications, in English, Hindustani, &c., from Midnapore, Hooghly, and Howrah

15 COMMISSIONER OF CUTTACK

Nineteen books, pamphlets, &c.

16 FROM NAGODE, per Political Assistant

Specimens of caligraphy

17 FROM DHURPRESS

Seven native books

- 18 FROM SEROHIE
Seven Sanscrit publications
- 19 COLLECTOR OF TIRHOOT
Vernacular publications
- 20 AMIR AHMED, per Central Committee, N.W. Provinces
Books in Urdu and Hindi
- 21 BUNSHEDHUR, per Central Committee, N.W. Provinces
Books in Urdu and Nagree
- 22 CHAL LALL, Meerut, per Central Committee, N. W. Provinces
Persian and Urdu books
- 23 DWAR RAPERAND, Ghaziabad, per Central Committee, N.W. Provinces
Books in Urdu
- 24 GOLAK SHUNKER, Bareilly
Three Hindu books
- 25 KOER BAHADOOR, Shajehanpore, per Central Committee, N. W. Provinces
A large series of native books
- 26 KULYAN SING, per Central Committee, N.W. Provinces
Works in Hindee and Urdu
- 27 MUMTA ZALI, per Central Committee, N. W. Provinces
Arabic and Urdu books
- 28 PHUN DUN LALL, per Central Committee, N. W. Provinces
Books in Urdu, Hindee, and Persian
- 29 MAHOMED AHMER AHMED, per Central Committee, N. W. Provinces
Vernacular newspapers
- 30 MAHOMED WYAHAT ALI KHAN, per Central Committee, N. W. Provinces
Vernacular newspapers
- 31 NAJ OF ALI, per Central Committee, N. W. Provinces
Weekly vernacular newspaper
- 32 TOORAB ALI, per Central Committee, N. W. Provinces
Yearly vernacular almanac
- 33 SYUD JUMALOO DEEN, per Central Committee, N. W. Provinces
Newspapers
- 34 VAJID ALI KHAN, per Central Committee, N.W. Provinces
Vernacular newspapers
- 35 DAVID, A., per Central Committee, N.W. Provinces
Quarterly English almanac
- 36 WILLIAMS, P., per Central Committee, N.W. Provinces
Mofussilite newspaper
- 37 ALLIGHUR, MAGISTRATE OF, per Central Committee, N.W. Provinces
Native books
- 38 CURATOR OF THE GOVERNMENT BOOKS, N. W. Provinces
Vernacular books, newspapers, &c.
- 39 LITERARY AND SCIENTIFIC SOCIETY, Allighur
Native books
- 40 HAMILTON, COLONEL, Punjab
Thirty-one Oriental MSS.
- 41 IMAM WAIRDI, Lahore
Illuminated stanzas in Persian
- 42 MIRZA IMAIN WANDI, Lahore
A book-illuminated, containing Persian verses embossed with the finger-nail, and ornamented
- 43 UMERDEEN, of Lahore
Ornamental papers, hand-painted in gold, used for complimentary letter-writing
- 44 JAESCHKE, REV. H. A., Kyelang in Lahoul
Tibetan books printed by the Moravian Mission
- 45 POWELL, B., Punjab
A collection of ephemeral literature of the Punjab issued during the year 1866
- 46 FROM AHMEDABAD
Newspapers, tracts, &c.
- 47 FROM BOMBAY
Books, newspapers, pamphlets, &c., published in 1865
- 48 FROM BELGAUM
Books and periodicals
- 49 FROM DHARWAR
A series of native books, &c.
- 50 FROM HYDRABAD, Sind
Native books
- 51 FROM KURRACHEE
Various native books, &c.
- 52 FROM POONA
Newspapers and periodicals, in Marathi and English
- 53 FROM RAJCOTE, in Kattiawar
Gazette, papers, &c.
- 54 FROM RUTNAGHERRY
Native newspapers
- 55 FROM SATTARA
Native newspaper
- 56 FROM SURAT
Books, newspapers, &c.
- 57 GANT BROTHERS, Madras
Books
- 58 FROM MADRAS
Numerous books, &c., native and English
- 59 FROM HASSAN, Mysore
Ancient cloth book and native pens, and palmyra-leaf book
- 60 BROWN, CAPTAIN H., Deputy-Commissioner Rangoon
Two Burmese books

- 61 COMMISSIONER BRITISH BURMAH**
Fourteen copies Burmese publications, newspapers, &c.
- 62 ANDERSON, DR. A. F., Penang**
Books printed in Penang
- 63 KEASBERRY, REV. B. P., Singapore**
Periodicals
- 64 LOGAN, J. R., Penang**
Gazette and Chronicle for 1866
- 65 THE CHRISTIAN VERNACULAR EDUCATION SOCIETY, Adam-street, London**
Books in various vernaculars
- 66 THE INDIA MUSEUM, London**
Copy of 'The Textile Manufactures and the Costumes of India.' Copy of 'Index to Native and Scientific Names.' By J. Forbes Watson, M.A., Reporter on the Products of India to the Secretary of State

CLASS VII.

Paper, Stationery, Binding, Painting, and Drawing Materials.

- 1 HIS HIGHNESS MAHARAJAH HOLKAR, G.C.S.I., of Indore**
Papers, dry ink, inkstands, reeds for writing, &c.
- 2 THE CHIEF OF CHUTTURPORE**
Country paper
- 3 THE CHIEF OF DUTTIA, per the Assistant Political Agent, Bundlekund**
Paper knife, inlaid with gold; paper weight, inlaid with gold
- 4 THE JHALLAWAR CHIEF**
Country paper and pasteboard; painting and drawing material and implements; inkstands, reed pens, writing boards, &c.
- 5 THE TONK DURBAR**
Inkstand of wood and ivory; stationery
- 6 BAROO KANNY LALL DEY, of the Medical College of Bengal, Calcutta, &c.**
Gums, varnishes, colours, and other materials used in the fine arts
- 7 POLLARD, MAJOR, Political Agent, Malwa, Central India**
Bundle of reeds, used for pens; inkstand; pen-case, with pens; sand-cases, used in lieu of blotting-paper
- 8 SYKES, COLONEL W. H., M.P., London**
A large sheet of Nepal paper. Forwarded by H. H. Sir Jung Bahadoor, G.C.B., G.C.S.I.
- 9 FROM AGRA COMMITTEE**
Marble and inlaid inkstand, paper-weights, paper-knives, soapstone inkstand, &c.
- 10 FROM BANCOORAH**
Brass ruler
- 11 FROM BHAUGULPORE**
Desks, inkstands, letter-cases, &c.
- 12 FROM Dacca, per Assistant Commissioner**
Coloured writing box
- 13 FROM MONGHYR, per Deputy Collector**
Desk folding, with ruler; desk open; ink and watch stand; ink and letter stand
- 14 FROM MOORSHEDABAD, per Commissioner, Raj Division**
Paper knife, carved ivory
- 15 FROM NUDDEA**
Gold and silver papers of sorts
- 16 FROM SHAHABAD**
Two samples of paper
- 17 FROM SHIKARPOOR**
Country paper
- 18 HIS HIGHNESS THE MAHARAJAH OF CASHMERE**
Envelope and pen cases of lacquered and enamelled papier mâché
- 19 AMEER BUX, Sealkote**
Paper-weight of Koftgharee-work
- 20 DEVI SULIAR and CHUMBA MULL, MESSRS., Umritsur**
Carved paper-cutters
- 21 GHOLAM HASSAIN, Sealkote**
Paper weight, inkstand with pen rack, pen tray, of Koftgharee-work
- 22 GHOLAM MAHOMED, Sealkote**
Penknives of Koftgharee-work
- 23 KOOTUBDEEN, Sealkote**
Paper knives, paper weights, letter clips, inkstands, portfolio of Koftgharee-work
- 24 KOOTUBDEEN ISHRAF and GHOLAM MOHEED-DEEN, Sealkote**
Letter clip, paper weight, inkstand, pen-tray, of Koftgharee-work
- 25 NUBEE BUX, Sealkote**
Paper knife, of Koftgharee-work
- 26 PEER BUX, Sealkote**
Letter clip, of Koftgharee-work
- 27 SHURFDEEN, Sealkote**
Paper weight, of Koftgharee-work
- 28 COLDSTREAM, W., Dhurmsala**
Pen-case and inkstand
- 29 FROM GOOERAT, per Deputy Commissioner**
Pen-trays, letter weights, paper knives, of Koftgharee-work
- 30 BHOWANIS HANKER HARIVULUBH, Bombay**
Numerous articles in carved sandalwood
- 31 COWASJEE MUNCHERJEE, Bombay**
Sandalwood bookstand, desks, inkstand, &c.
- 32 FRAMJEE HEERJEEBHoy, Bombay**
Sandalwood writing-desk, envelope-boxes, bookstands, &c.
- 33 FROM AHMEDABAD**
Blackwood carved bookcase and inkstand, and country paper

- 34 FROM BOMBAY**
Sandalwood inkstands, envelope-boxes, paper cutters, &c.
- 35 FROM CAMBAY**
Agate paper-weights, cornelian seals, &c.
- 36 FROM COOMPTA, Canara**
Carved sandalwood writing-desks
- 37 FROM HYDRABAD, Sind**
Ivory paper knives, &c.
- 38 FROM KURRACHEE**
Sindee ink and inkstand
- 39 FROM LARKHANA, Shikarpoor**
Country paper
- 40 FROM NASSICK, Ahmednuggur**
Inkstand, &c.
- 41 FROM SURAT**
Sandalwood writing-desk, and envelope-box
- 42 ABDOOLA SAHIB, Bellary**
Four sorts of brown paper
- 43 CHETARI CHINNANA, Kurnool**
Letter-box
- 44 CHETARI VEERANA, Kurnool**
Pen and paper boxes; leather writing-pads
- 45 SEETARAMOODOO, Kurnool**
Pen-box and leather writing-pads
- 46 VADALA PEDDENA, Kurnool**
Letter-box
- 47 FROM BANGALORE, Mysore**
Specimens of bookbinding and printing
- 48 FROM BELLARY**
Paper, four sorts; sealing-wax
- 49 FROM HASSAN, Mysore**
Pads used by Mahomedans in writing
- O MADRAS CENTRAL COMMITTEE**
Naples yellow, brown ochre, and Scheele's green
- 51 MADRAS SCHOOL OF INDUSTRIAL ARTS**
Orange chrome and other mineral colours
- 52 FROM MYSORE, Mysore**
Country paper and sealing-wax
- 53 FROM VIZAGAPATAM**
Ivory and sandalwood writing-desk, inkstand, envelope-boxes, &c.
- 54 FROM PROME**
Writing-box, gilded
- 3 RHADARANUM MISTRY, Berhampore**
Ivory carvings
- 4 SREERAM and JODOO PAUL, Kishnaghur**
Model figures of natives, illustrating various trades, occupations, &c.
- 5 BARROW, COLONEL L., C.B., Lucknow**
Model figures
- 6 BOURKE, H. M., Calcutta**
Model figures in clay
- 7 DOWLEANS, A. M., Calcutta**
Model figures in clay, from Lucknow, Oude, and Kishnaghur, Bengal
- 8 POLITICAL AGENT, Marwar**
Carving in wood
- 9 FROM NUDDEA**
Clay figures, of sorts
- 10 FROM RAJ DIVISION, MOORSHEDABAD, per Commissioner**
Model figures
- 11 FROM DESNOOR, Belgaum**
Numerous figures, illustrating native occupations; models of fruits
- 12 FROM GOKAK, Belgaum**
Figures illustrating native trades, &c., models of fruits and vegetables
- 13 FROM POONA**
Various figures of natives
- 14 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.**
Numerous fruits in carved and painted ivory
- 15 VEERASAWMY NAIKA, Trichinopoly**
Pith figures of natives
- 16 SHORTT, DR. J., Madras**
Models of fruits and vegetables
- 17 FROM NARSAPURUM, Godavery District**
Eight models, various
- 18 FROM MADRAS**
Models of fruits and vegetables
- 19 FROM THE SCHOOL OF ARTS, Madras**
Etchings and designs for drawing lessons
- 20 FROM SOUTH ARCOT**
Eleven figures in clay
- 21 BHEEL AGENT, in Burmese State**
Model figures in clay; Bheel cultivators, &c.
- 22 FROM RANGOON**
Five wooden images, gilt

CLASS VIII.

Applications of Drawing and Modelling to the Common Arts.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore**
Carvings in wood, models in clay; engraved seals in brass and steel
- 2 BABOO RAJOR, Berhampore**
Ivory carvings

CLASS IX.

Photographic Proofs and Apparatus.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore**
Photographic portraits of native noblemen, &c.
- 2 OPFA BALIS SAIB, per Political Agent, Malwa**
Photographs of the tomb of Bheema Bhai, and of the bridge built by her at Indore city

- 3 POLLARD, MAJOR, Political Agent, Malwa, Central India
Photographs
- 4 FROM BOMBAY
Photographs of cave temples, and native castes.
- 5 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.
Photographs of mission buildings, Travancore
- 6 DIXON, MAJOR H., Madras
Photographs
- 7 LYON, CAPTAIN, Madras
Mounted photographs
- 8 FROM THE SCHOOL OF ARTS, Madras
Photographs of antiquities, and of the hill tribes of Southern India; wax casts of hands and feet of jungle tribes
- 9 FROM BANGALORE, Mysore
Photographs and stereoscopic views
- 10 FROM MOULMEIN
Thirty-six photographs
- 11 FROM RANGOON
Photographs
- 12 ANDERSON, DR. A. F., Penang
Photographs
- 13 FEILBERG, R., Penang
Fifteen views in Penang; eleven views in Junk, Ceylon
- 14 SACHTLER, W., Singapore
Photographic album, containing numerous portraits of the natives, and views in the Straits settlements
- 15 THE INDIA MUSEUM, London
Selection from a series of photographs of the princes and people of India. Frame of photographs, illustrating the costumes of the people of India. Reproduced under the direction of Dr. Forbes Watson, by William Griggs, India Museum, London

CLASS X.

Musical Instruments.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Five musical instruments; 'Sitar,' 'Sarinjee,' 'Vina,' 'Tubla,' and 'Sanai'
- 2 MEER SHAMUT ALI KHAN, Bahadoor, Superintendent of Rutlam
Nine musical instruments
- 3 MARWAR DURBAR
A 'sittar,' or guitar
- 4 FROM BENGAL
Ghong used by Ghyeiks
- 5 FROM COMMISSIONER OF COOCH BEHAR
Bone trumpe

- 6 THE MAHARAJAH OF JODHPORE, per Political Agent
Musical instrument, 'sitar'
- 7 FROM NUDDEA DIVISION
Hindu tabor and trumpet, and other musical instruments, and a shell instrument used to give an alarm
- 8 FROM KURRACHEE
Native musical instruments
- 9 FROM POONA
Musical instruments
- 10 GOODRICH, MR., Poornagada, in Goomsur Maliah, Ganjam, Madras
Two musical instruments used by the Khonds
- 11 FROM BANGALORE, Mysore
A series of eighteen native musical instruments
- 12 FROM CHUNNAPATAM, Mysore
Three musical instruments
- 13 FROM HASSAN, Mysore
Various musical instruments
- 14 BROWN, COL., Moulmein
Sixteen musical instruments
- 15 LLOYD, CAPTAIN M., Deputy Commissioner, Rangoon
Gong used by Ghiko
- 16 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.
Native musical instruments from Singapore

CLASS XI.

Medical and Surgical Instruments and Apparatus.

- 1 SPENCE, W., Sealkote
A set of surgical instruments, made by natives at the medical dépôt

CLASS XII.

Mathematical Instruments and Apparatus for Teaching Science.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Weights; old and new coins of Indore
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR OF JYPEORE, G.C.S.I.
Coins
- 3 HIS HIGHNESS THE MAHARAJAH OF JODHPORE
Gold and silver coins
- 4 THE CHIEF OF PUNWAH, per the Assistant Political Agent, Bundlekund
Coins struck by various Rajahs

- 5 BIKANER DURBAR
Coins, current and obsolete
- 6 JYSSULMERE DURBAR
Current and obsolete coins
- 7 KEROWLEE DURBAR
Current and obsolete coins
- 8 KISHENGURH DURBAR
Current and obsolete coins
- 9 MARWAR DURBAR
Coins, current and obsolete
- 10 FROM MARWAR, Rajpootana, per Political Agent
Coins, current and obsolete
- 11 FROM BANCOORAH
Set of brass scales and weights, in box
- 12 FROM MEERUT
Model thermantidote, fitted with Grant's patent self-acting trough
- 13 KOOTUBDEAN, of Sealkote
Set of scales and weights in Koftghari-work
- 14 OSBORNE, MAJOR W., C.B., Bhopal
A large collection of the coins of India
- 15 FROM RANGOON
Set of weights and measures

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

- 1 LONG, REV. MR., Calcutta
A globe made from a cocoanut by an ex-pupil of one of the Church Missionary Society's Vernacular schools at Thakoorpooker
- 2 FROM BOMBAY
Maps of the Presidency, the several Collectorate, and Roads
- 3 FROM SINGAPORE
Statistical tables
- 4 THE CHRISTIAN VERNACULAR EDUCATION SOCIETY, Adam-street, Adelphi, London
Maps
- 5 FROM THE INDIA MUSEUM, London
Relief-map of India, constructed by R. Montgomery Martin
- 6 THE INDIA MUSEUM, London
Relief-map of India. Reproduced from the original by R. Montgomery Martin, under the direction of Dr. Forbes Watson, by William Griggs, India Museum, London

GROUP III.

Furniture and other Objects for the Use of Dwellings.

CLASS XIV.

Fancy Furniture.

- 1 HIS HIGHNESS THE MAHARAJAH OF BENARES
Embroidered banner screen, with elaborately carved ivory pedestal
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR OF JYEPURE, G.C.S.I.
Legs of 'charpoy,' or bedstead; teapoy and a flower-vase
- 3 FROM BAREILLY
Articles of furniture, japanned or lacquered, viz.:—Pair of boxes, or cabinets, on stands; 6 chairs; 1 cabinet; pair of small tables
- 4 FROM BHAUGULPORE
Large cabinet, ebony, inlaid with ivory; large case, ebony, inlaid with ivory; 2 chairs, sandalwood; 2 chairs, large; 2 chairs, small; 2 chairs, ebony, &c.
- 5 COMMISSIONER, Raj Division, Moorshedabad
Handsome large chess-table, carved ivory
- 6 FROM MEERUT
Table, cabinet, and bedstead legs
- 7 DEPUTY COLLECTOR, Monghyr
Large ebony cabinet, inlaid with ivory; large ebony case, ditto; 2 chairs, sandalwood; 2 chairs, large; 2 chairs, small; 2 chairs, ebony, &c.
- 8 FROM ROHILKHUND DIVISION
Pair of lacquered and gold figured cabinets on stand; 3 pairs of chairs; chess table; cabinet; tea table, Chinese pattern
- 9 COLLECTOR OF BIJNOUR, per Central Committee, N. W. Provinces
Writing tables
- 10 BHOWANIS HUNKER HARIVULUBH, Bombay
Inlaid writing-table and teapoy
- 11 JAMSETJEE HEERJEEBHAY, Bombay
Carved sandalwood table and teapoy
- 12 NOWROJEE SHAPOORJEE, MESSRS., & Co., Bombay
Carved blackwood wardrobe, tables, flower-stands, sideboard, chairs, &c.
- 13 BIRDWOOD, DR. G., Bombay
Lady's writing-table
- 14 FROM BOMBAY
Carved blackwood couches, wardrobe, table, chairs, &c.
- 15 FROM HYDRABAD, Sind
Lacquered bedstead-legs, chess-table, chair, &c.

- 16 FROM TATTA, Kurrachee
Lacquered bedstead, cot, chair, ottoman, &c.
- 17 DESCHAMPS, J., Madras
Carved rosewood frame for mirror, flower-stand
and Davenport
- 18 FANE, E. G. R., Madras
Carved mantelpiece
- 19 FROM PROME
Three Burmese cabinets
- 20 FROM RANGOON
Carved wooden screen
- 21 WARD, E., Wigmore-street, London
Fire screen, ornamented with Indian pheasant

CLASS XV.

Upholstery and Decorative Work, including Articles employed in Church Services.

- 1 MAHARAJAH RAJENDRA PERTAB, of Hutwa, Sarun
Counterpane
- 2 BABOO SREEDHUR SOHY, of Mojha
Two silk pillows from Sarun
- 3 ASSISTANT DEPUTY BHEEL AGENT in the
Burmese State
Models of articles used by Brahmins while
worshipping
- 4 THE DEPUTY COMMISSIONER, Darjeeling
Praying machine (Maunn)
- 5 THE COLLECTOR OF HOOGHLY
Bed sheet and pillows of deer skin
- 6 FROM BENARES
Utensils used in native worship, or 'Poojah'
- 7 FROM BHAGULPORE
Praying machine ('Maull')
- 8 AHMED KHAN, Cashmere
A 'sozni' or embroidered coverlet
- 9 ELACHEE BUKSH, Lahore
Scarlet table cover embroidered in gold and
beetle-wings
- 10 BIRCH, MAJOR, Bunnoo, per Deputy Com-
missioner
Embroidered pillow cover
- 11 JAESCHKE, REV. A., Kailing, in British
Lahore
Dorje or Lama's sceptre, dagger used in reli-
gious ceremonies
- 12 LAURENCE, COL., Simla
Prayer cylinders of silver and copper
- 13 FROM UMITSUR, per Local Committee
Cord tassel in silk and silver
- 14 HAYAT SAHIB, Kurnool, Madras
White counterpane
- 15 MASUM SAHIB, Kurnool
Coloured counterpane

- 16 HIS HIGHNESS THE NIZAM'S MINISTER OF
HYDERABAD
Counterpanes
- 17 THEOBALD, DR., Rangoon
Three brass images
- 18 HIS HIGHNESS THE TUMONGONG OF JOHORE,
K.C.S.I.
Teekah or counterpane

CLASS XVI.

Crystal, Fancy Glass, and Stained
Glass.

- 1 FROM DELHI, per Local Committee, Punjab
A mirror, of local manufacture

CLASS XVII.

Porcelain, Earthenware, and other
Fancy Pottery.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Drinking vessels, &c., in fancy pottery
- 2 THE CHIEF OF CHUTTURPORE, per the As-
sistant Political Agent, Bundelkund
Cup of goura stone
- 3 HIS HIGHNESS THE MAHARAJAH OF JODH-
PORE, per Political Agent
One goblet and cup
- 4 THE INDURGURH CHIEF, Rajpootana
Specimens of painted pottery
- 5 BABOO SREEDHUR SOHY OF MOJAH, per
Commissioner of Patna
A series of 20 domestic utensils, in earthen-
ware
- 6 SYED ZAIR HOOSAIN, OF NURHEEN, per
Commissioner of Patna
Domestic utensils in earthenware
- 7 BARROW, COL. L., Lucknow
Two waterpots, two jugs
- 8 FROM GOONA, Central India
Twenty specimens of pottery
- 9 FROM MEERUT
Specimens of Chunar pottery
- 10 FROM SARUN
A series of domestic utensils in earthenware,
&c.
- 11 THE COLLECTOR OF MIRZAPORE
Earthen vessels for domestic use, coloured,
black, and silver, &c.
- 12 HIS HIGHNESS THE CHIEF OF DRANGUDRA,
Kattywar
Pottery and earthenware

- 13 FROM HALLA, Hyderabad, Sind
Numerous earthenware articles
- 14 FROM PUTTAN, Guzerat
Pottery manufactured in the territories of
His Highness The Guicowar of Baroda
- 15 AUROOMOGUM, Madras
Black stone ware
- 16 KOSA CHIDUMBARAM, Karegheri, in Gudi-
attam Taluk, North Arcot
Pottery, white and red goblets
- 17 NATESWARA SADAPATHI, Aguru, in the Ze-
mindary of Karvetinuggur, Arcot
Stone ware, twelve samples
- 18 RAMASIVAYEM ASSARY, Trichinopoly
Drinking vessels
- 19 FROM ARCOT
Pottery of various kinds
- 20 FROM HASSAN, Mysore
Steatite cups
- 21 FROM MYSORE
Stone goblet
- 22 FROM VELLORE, North Arcot
Pottery of various kinds
- 23 FROM UPPINANGADY, in South Canara
Twenty-seven samples of pottery
- 10 THE COMMISSIONER OF GYAH
Carpet of 'Kaleem' thread
- 11 THE COLLECTOR OF JESSORE
Twenty-seven Seetalputtee mats
- 12 THE COLLECTOR OF HOOGHLY
Two Mushnud mats
- 13 FROM MARWAR, per Political Agent of
Rajpootana
Three felt carpets
- 14 FROM MEERUT
Two carpets (one cotton, one woollen)
- 15 THE COLLECTOR OF MIDNAPORE
Eighteen mats made at Midnapore
- 16 THE COLLECTOR OF MIRZAPORE
Woollen carpets, and rugs of mudar, cotton,
&c.
- 17 FROM MONGHYR, per Deputy Collector
Seven sets of mats
- 18 FROM NUDEEA DIVISION
One Seetalputtee mat; one mushnuda, a fine
mat, variegated colours
- 19 THE JAIL, Patna
Four 'suttringees' or rugs
- 20 FROM SARUN
A carpet
- 21 DEWAN SING, Cashmere
Two carpets of shawl-wool; musnud of scarlet
pushmina, hand embroidered; cotton carpet
embroidered with coloured silks
- 22 GRAY, DR. R., Lahore
A large carpet of fine Cashmere shawl-wool
and a small rug of ordinary wool, made at
the Lahore Central Jail
- 23 LOWE, J. E., Trigonometrical Survey
Carpet from Khuttan, Central Asia
- 24 FROM THE PUNJAB
Silk pile carpet from Khutan, Central Asia
- 25 FROM AHMEDNUGGER
Cotton carpets
- 26 FROM JACOBABAD, Upper Sind
Carpet and mats
- 27 FROM NOWLGOOND, Dharwar
Carpet
- 28 FROM POONA
Table mats
- 29 FROM SHIKARPOOR
Carpets and rugs
- 30 HIS HIGHNESS THE NIZAM'S MINISTER OF
HYDERABAD
Woollen and cotton carpets
- 31 BALLARD, G. A., Collector of Malabar
Mats
- 32 KORAVAN MAYAN, Palghaut
Grass mats
- 33 PATTUNUL DODDI SUBBIA CHETTY, Walla-
japet, in Wallaja Taluk, North Arcot
Silk carpet

CLASS XVIII.

Carpets, Tapestry, and other Stuffs for Furniture.

- 1 HIS HIGHNESS MAHARAJAH RAJENDRA PER-
TAB, of Hutwa
Carpet
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING
BAHADOOR, G.C.S.I., of Jypore
Two rugs, square and circular
- 3 HIS HIGHNESS RAJABIND SING, MAHARAJAH
OF NAGODE
Carpet of printed calico, Bundelkund
- 4 THE NAWAB OF TONK, Marwar
Janunaz, or praying cloth
- 5 RANKIN, MAJOR, Jubbulpore School of In-
dustry
Two woollen carpets and four rugs
- 6 FROM AGRA
Two carpets (one woollen, one cotton); piece
of matting, made of common jungle grass
- 7 FROM BEERBHOOM, per Officiating Magis-
trate and Collector
Table-cloth and cover
- 8 FROM BHAUGULPORE
Seven sets of mats
- 9 THE COMMISSIONER OF DACCA, Bengal
Ten Seetalputtee mats

- 34 FROM ADONI, Bellary District
Cotton carpet
- 35 FROM BANGALORE, Mysore
Carpets manufactured in the Central Jail
- 36 FROM BELLARY
Woollen carpet and woollen pile carpet; cotton carpet
- 37 FROM ELLORE, Godavery District
Six carpets
- 38 COLLECTOR OF GANJAM
Straw mats, from Kimedý
- 39 FROM MYSORE
Carpet woven in fibre
- 40 FROM SALEM DISTRICT
Cotton carpet
- 41 FROM TINNEVELLY
Cotton carpet and mats made from the Korai grass
- 42 FROM TRICHOOR, Cochin Sirkar
Mats
- 43 FROM WENDAWASH, Arcot
Six mats
- 44 FROM MOULMEIN JAIL
Carpet
- 45 FROM SINGAPORE
Mats
- 46 ROBINSON, VINCENT, & Co., 38 Welbeck-street, London
Silk carpet, manufactured at Tanjore, Madras. Woollen rug, from Ellore, Madras. Large mat, made at Midnapore, Bengal. Mat, made at Malabar, Madras
- 47 WATSON, BONTOR, & Co., 35 and 36 Old Bond-street, London
Three carpets of Indian manufacture

CLASS XX.**Cutlery.**

- 1 HIS HIGHNESS THE NAWAB NAZIM, Moorshedabad
Ivory-handle knife
- 2 THE CHIEF OF DUTTIA, per the Assistant Political Agent, Bundlekund
Two knives, combining several instruments (scissors, file, &c.)
- 3 THE CHIEF OF KEHREE, per the Assistant Political Agent, Bundlekund
Surrontas; Areca-nut cutter
- 4 THE JHALLAWAR CHIEF
Scissors and penknives
- 5 COLLECTOR OF JESSORE
Knives, betel cutters, and scissors
- 6 FROM KHYRPOOR
Knives for cutting betel-nut

- 7 FROM NASSICK, Ahmednuggur
Betel-nut knife
- 8 FROM SEHWAN, Kurrachee
Cutlery—razors, scissors, &c.
- 9 HIS HIGHNESS THE MAHARAJAH OF VIZIANAGARAM
Cutlery
- 10 ARNACHALA ACHARY, S., Salem
Cutlery
- 11 RIPLEY, MAJOR, Prome
Garden and forest knives, &c.
- 12 LLOYD, CAPT. M., Deputy Commissioner, Rangoon
Four short knives
- 13 FROM RANGOON
Two pair of scissors, betel knives, &c.
- 14 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.
Knife used for splitting bamboo

CLASS XXI.**Gold and Silver Plate.**

- 1 THE JAGEERDAR OF ALLIPORE, per the Assistant Political Agent, Bundlekund
'Utterdan' for keeping perfume, gold
- 2 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Silver plate, perfume holders, and sprinklers
- 3 HIS HIGHNESS THE MAHARAJAH OF JODHPORE, per Political Agent
Silver goblet containing spirit made at Jodhpore
- 4 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jypore
'Tarras' of gold and silver; 'Torree' of gold
- 5 THE CHIEF OF CHUTTERPORE, per the Assistant Political Agent, Bundlekund
Silver case, 'Deebec'
- 6 THE JAGEERDAR OF PALDEO, per Assistant Political Agent, Bundlekund
An utterdan, fish shaped, of silver
- 7 THE NAWAB OF TONK, per Political Assistant, Goona, Central India
'Uttardan' and 'Golabdan'; rose water holder and sprinkler, silver
- 8 KUMAR HARENDRA KRISHNA BAHADOOR, Nuddea
Silver albalah, complete
- 9 RAJENDRA PERTAB, Bahadoor of Hutwa, per Commissioner of Patna
Silver utterdan
- 10 SREEDHUR SOHY of Mojha, per Commissioner of Patna
Silver utturdans, spice-pot, dish, &c.; pair of rosewater holders

- 11 DOWLEANS, A. M., Calcutta
Vases of gold and silver. From Lucknow
- 12 RAVENSHAW, H., Cuttack
Silver vase, box, baskets, bouquet holders, ring stands, tea infuser, coin case, &c.
- 13 FROM CALCUTTA, per Secretary to the Government of India
A Burmese gold cup set with stones and a ditto with the zodiac
- 14 FROM DACCA
Silver filagree articles
- 15 FROM GHAAZEEPORE
A kind of bottle, fish shaped, silver, used for utters and other perfumes
- 16 FROM KURNAL, per Deputy Commissioner, Punjab
Casket in open work, plated with silver; a casket of gilt work
- 17 HIS HIGHNESS THE MAHARAJAH OF CASHMERE
Salvers, goblets, cups, and cigar cases of solid gold
- 18 THE NAWAB OF PATOUNDI, Delhi
Spice holder of silver
- 19 DEWAN KIRPA RAM, of Cashmere
Caskets, salvers, goglets, cups, cigar cases, &c., of gold and silver
- 20 COLDSTREAM, W., Kangra
Muffineer and cigar lighter of silver, enamelled
- 21 FROM GOOJRAT, per Deputy Commissioner
A vase on stand
- 22 HIS HIGHNESS THE JAM OF NOWANUGGUR
Carved silver cup
- 23 HIS HIGHNESS THE RAO OF KUTCH
Numerous articles of gold and silver
- 24 THE THAKORE SAHIB OF GONDUL
Silver milk-strainer
- 25 THE THAKORE SAHIB OF MOORVEE
Gold and silver cups, saucers, &c.
- 26 FROM AHMEDABAD
Engraved silver jug and cups
- 27 FROM AHMEDNUGGUR
Silver goblet, tumbler, &c.
- 28 FROM HYDRABAD, Sind
Silver drinking cup, rosewater bottle, enamelled cup, &c.
- 29 FROM KHYRPOOR
Enamelled silver cup
- 30 FROM SEHWAN, Kurrachee
Scent-bottle mounted in silver
- 31 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.
Various articles of silver filigree-work
- 32 NASALINGA ACHARY, Trichinopoly
Cigar lighters and cigar case

- 33 RIPLEY, MAJOR, Prome
One silver cup and three chunam boxes
- 34 FROM RANJOON
Silver embossed box, copper box inlaid with silver

CLASS XXII.

Bronzes and other Art Castings.

- 1 HIS HIGHNESS THE MAHARAJAH RAJENDRA PERTAB, of Hutwa, per Commissioner of Patna
A brass fountain from Sarun
- 2 THE CHIEF OF TEHREE, per the Assistant Political Agent, Bundelkund
'Lotas' (drinking vessels), &c., of brass.
- 3 MEER SHANUT ALI KHAN, Bahadoor, Superintendent of Rutlam
Vessels, &c., of iron, copper, and brass
- 4 BABOO SREEDHUR SOHY, of Mojha, per Commissioner of Patna
Domestic utensils, of bronze, from Sarun
- 5 SYEDZAIR HOOSAIN, of Nurhun, per Commissioner of Patna
Various utensils of brass, from Sarun
- 6 MELVILL, S. S., Officiating Collector, Rohilcund
Twelve domestic utensils of brass
- 7 FROM BANCOORAH
Brass fountain, cash box, &c.
- 8 FROM MEERUT
Utensils in brass
- 9 THE COLLECTOR OF MIRZAPORE
Brass vessels, &c. used for domestic purposes
- 10 FROM MORADABAD
Twelve metal vessels for domestic use
- 11 FROM MYNPOORIE, Agra Division, per Central Committee, N. W. P.
A brass standard lamp
- 12 FROM NUDDEA, per Local Committee
Three chapas, or impressions of raised letters of brass
- 13 YELLURU SETTI, Madura
Bronze plate, cup, tumbler, &c.
- 14 FROM AUROOMOOGUM, Trichinopoly
Blackstone stool
- 15 FROM THE SCHOOL OF ARTS, Madras
Casts in bronze of hands and feet
- 16 FROM PROME
Gilt box

CLASS XXIV.

Apparatus and Processes for Heating and Lighting.

- 1 GROWSE, F. S., per Mynpoorie Committee
Brass peacock lamp, with three tiers of burners
- 2 FROM Bijnour, per Collector, N. W. Provinces
Pair of small candlesticks
- 3 FROM KURRACHEE
Brass lamp
- 4 FROM NASSICK, Ahmednuggur
Various lamps
- 5 FROM POONA
Lamps—used before idols
- 6 HIS HIGHNESS THE NIZAM'S MINISTER OF HYDERABAD
Brass lamps from Maiduck
- 7 FROM TRICHOOR, Cochin Sirkar
Two brass lamps

CLASS XXV.

Perfumery.

- 1 HIS HIGHNESS THE MAHARAJAH RAMSING, BAHADOOR, G.C.S.I., of Jyepore
Utter of roses in a silver bottle; utter of Keurah flowers
- 2 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Perfumes and essences
- 3 HIS HIGHNESS THE MAHARAJAH RAJENDRA PERTAB, of Hutwa
Three phials of uttur, from Sarun
- 4 THE CHIEF OF TEHREE, per the Assistant Political Agent, Bundelkund
Perfume of 'Keronda'
- 5 BABOO KANNY LALL DEY, Medical College, Calcutta
Twenty essential oils; ten perfumes; extraits des fleurs, &c.
- 6 BRIJRUTTAN DASS, Ghazepore
Rosewater, uttars, and essences
- 7 BARROW, COLONEL, C.B., Goona, Central India
Sixteen samples of essential oils
- 8 POLITICAL ASSISTANT, Nagode
Nine phials of perfumery in carved sandal box, bound with silver
- 9 FROM DELHI, per Municipal Committee
Eighteen sorts of uttars or essences
- 10 FROM LUCKNOW, Oude
Essential oils
- 11 FROM AHMEDNUGGUR
Pastiles

12 FROM POONA

Utters, &c.

13 CENTRAL JAIL, Bangalore

Jasmine, benzoin, and sandalwood oils

14 FROM MYSORE

Jasmine scent

15 FISHER, J., Singapore; agents, W. H.

Brown & Co., 12 Billiter square, London
Lemon grass, citronelle, clove, Glam, and Kanangah oils; and wash for the mouth, used by the natives

CLASS XXVI.

Leather Work and Fancy Articles.

- 1 HIS HIGHNESS THE MAHARAJAH OF BHURTPORE
Carved ivory cars, palanquin, &c.
- 2 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Four sandalwood combs, cane boxes, &c.
- 3 HIS HIGHNESS THE MAHARAJAH OF JODHPORE
Hookah of leather, worked with silver, with stem, bowl, &c., complete
- 4 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jyepore
Jyepore hookah, with apparatus complete; comb ('Kunghai') with receptacle for oil
- 5 CHIEF OF CHERKHARE, per the Assistant Political Agent, Bundelkund
Hookah, with embroidered cloth
- 6 THE CHIEF OF CHUTTERPORE, per the Assistant Political Agent, Bundelkund
Comb of ivory
- 7 THE CHIEF OF BERONDA, in Bundelkund
One hookah with embroidered cloth
- 8 BHURTPORE DURBAR
Three silver hookahs, of various shapes
- 9 MARWAR DURBAR
Ivory combs, brushes, snuffboxes, &c.
- 10 MEER SHANUT ALI KHAN, Bahadoor, Superintendent of Rutlam
A Kaleedar hookah; an ivory box
- 11 THE CHIEF OF MYHERE, per Political Assistant, Nagode
Snuffbox, chased silver, pebble top; opium box, chased silver, containing Bundelkund opium; silver mounted cocoanut hookah and apparatus; carved ebony combs; embroidered purse.
- 12 SYUD WALLAJAT ALI KHAN, of Patna
Smoking apparatus, consisting of huquah, sarpash, mohrul, and arakghur
- 13 BABOO JOYKISSEN MOOKERJEE, Hooghly
Sheet and two pillows of deer-skin

- 14 BABOO SREEDHUN SOHY, of Mojha, per Commissioner of Patna
Crystal hookah
- 15 BAWOOL RAJOR and NOBO KESSON, Berhampore
Numerous articles of carved ivory
- 16 RADHARAMUN MISTRY, Berhampore
Carved ivory articles
- 17 POLLARD, MAJOR, Malwa, Central India
An egg amulet
- 18 FROM BANCOORAH
Pair brass receptacles for cigar lights; brass cash box
- 19 FROM BENARES
'Girdahs,' or table mats, of different colours, &c.
- 20 FROM BHAUGULPORE
Two Bidree hookahs with stands; seven sets table mats; twelve baskets; watch-stand; boxes, &c.
- 21 FROM DACCA, per Assistant Commissioner
Wood and bamboo cases
- 22 DEPUTY COLLECTOR, Monghyr
Seven sets mats (table); twelve baskets; large workbox; watchstand, with drawer; cigar boxes; boxes of horn, sal-wood, &c.
- 23 FROM NUDDEA
Hookah and apparatus; a mosquito catcher
- 24 FROM BIJNOUR, per Collector, N. W. Provinces
Sandalwood and papier-mâché boxes
- 25 FROM MYNPOORIE, per Central Committee, N. W. Provinces
Inlaid wood boxes
- 26 FROM PURNEAH, per Collector
Two Bidree hookahs with stands
- 27 HIS HIGHNESS THE MAHARAJAH OF CASHMERE
Lacquered and enamelled papier mâché articles, card trays, cigar cases, glove boxes, &c.
- 28 THE RAJAH OF BILASPOOR, Punjab
Leather cases, gold embroidered
- 29 ABDOL RUHEEM, Sealkote
Card tray, bell, cigar case, casket, vase, of Koftgharee-work
- 30 ALLADEEN, Sealkote
Casket, card tray, cigar stand, of Koftgharee-work
- 31 ALLADITTA, Sealkote
Card tray, of Koftgharee-work
- 32 AMEER BUX, Lahore
Casket of Koftgharee-work; vase stand of flowers made in velvet, and glove-box worked in velvet
- 33 EMAM BUX, Sealkote
Casket and card tray, of Koftgharee-work
- 34 GHOLAM HASSAIN, Dera Ismael Khan
Elaborately ornamented circular boxes
- 35 GHHOUSE, Sealkote
Casket, card tray, of Koftgharee-work
- 36 KOOTUBDEEN, Sealkote
Caskets, card tray, comb, of Koftgharee-work
- 37 KOOTUBDEEN ISHRAF, Sealkote
Vase and stand, scent bottle, card-tray, comb of Koftgharee-work
- 38 KURMDEEN, Sealkote
Card baskets, office bell, of Koftgharee-work
- 39 LALL RUMMEE MULL, Delhi
Glove box, covered with silk and embroidery
- 40 MEAN JOWAYA, Dera Ismael Khan
Circular boxes, card trays, &c.
- 41 NUTHOO, Sealkote
Large casket, of Koftgharee-work
- 42 PEER BUX, Sealkote
Caskets, of Koftgharee-work
- 43 SHURFDEEN, Sealkote
Caskets, of Koftgharee-work
- 44 UMEDLO BUX, Sealkote
Cup, of Koftgharee-work
- 45 YAR MAHOMED, Sealkote
Casket, of Koftgharee-work
- 46 LAWRENCE, COLONEL, Simla
Leather boxes embroidered with quills; cigar cases
- 47 SPENCE, W. W., Sealkote
Small vase and scent bottle, of Koftgharee, on brass
- 48 FROM GOOJERAT, per Deputy Commissioner
Vases and stands, ring tray, card plate, caskets
- 49 FROM PAK PUTTUN, per Deputy Commissioner of Montgomery
Enamelled boxes, vases, card stands, cigar cases, &c.
- 50 FROM THE PUNJAB, per Municipal Committee
Carved sandalwood casket, inlaid with Delhi paintings on ivory
- 51 FROM UMRITSUR, per Local Committee
Covered cups, circular boxes, &c.
- 52 BHOWANIS HANKER HARIVALUHH, Bombay
Boxes, card baskets, &c., in carved sandalwood
- 53 COWASJEE MUNCHERJEE, Bombay
Numerous articles of carved sandalwood, ebony, &c.
- 54 FRAMJEE HEERJEEBHOY, Bombay
Carved sandalwood and inlaid boxes
- 55 JAMSETJEE HEERJEEBHOY, Bombay
Carved sandalwood boxes
- 56 FROM AHMEDABAD
Carved blackwood vase, frame, &c.
- 57 FROM BOMBAY
Numerous articles of carved sandalwood

- 58 FROM COOMPTA, Canara
Carved sandalwood and ebony boxes, &c.
- 59 FROM DHARWAR
Cane baskets
- 60 FROM HYDRABAD, Sind
Lacquered and ivory articles
- 61 FROM JACOBABAD, Upper Sind
Workbasket
- 62 FROM KARWAR, Canara
Carved sandalwood car
- 63 FROM KURRACHEE
Wooden combs
- 64 FROM KHYRPOOR
Leather cigar-case
- 65 FROM NOWSHARA, HYDRABAD
Hand-baskets and combs
- 66 FROM POONA
Combs carved with figures ; kuskus baskets
- 67 FROM SAWUNTWAREE
Kuskus and lacquered boxes
- 68 FROM SEHWAN, Kurrachee
Mother-o'-pearl and ivory articles
- 69 FROM SURAT
Carved work and glove box
- 70 CHETARI VEERANA, Kurnool
Betel boxes
- 71 EDGCOME, CAPTAIN A. R.
Chessboard and men
- 72 HUNTER, DR., Canara
Carved sandalwood boxes
- 73 RAJARUTNA MOODELLIAR, Salem
A sandalwood cup
- 74 SEETARAMOODOO, Kurnool
Work and spice boxes
- 75 THE COLLECTOR OF GANJAM
Fancy baskets
- 76 FROM HASSAN, Mysore
Vessel made of gooseberry-wood
- 77 FROM TOOMKOOR, Mysore
Wooden spoons
- 78 FROM TINNEVELLY
Palmyra leaf baskets, &c.
- 79 FROM UPPINANGADY, in S. Canara
Basket work
- 80 FROM VIZAGAPATAM
Chessboard, writing-desk, pen-tray, &c., in
ivory and sandalwood
- 81 THE RAJAH OF HILL TIPPERAH, per Col-
lector
Ivory flower-vase, combs, billiard-balls
- 82 RIPLEY, MAJOR, Prome
Lacquered tray and cover ; gilt boxes with
stands
- 83 THEOBALD, DR., Rangoon
Two nests of Burmese boxes

- 84 THEOBALD, W., British Burmah
Nests of Burmese boxes
- 85 FROM RANGOON
Lacquered pagoda-shaped boxes, drinking
cups, nests of boxes, &c.
- 86 MAN, COLONEL H., Penang
Fancy straw baskets
- 87 WHAMPOA, MR., Singapore
Carved sandalwood ornament

GROUP IV.

Clothing, including Fabrics, and
Objects worn on the Person.

CLASS XXVII.

Cotton Thread and Fabrics.

- 1 HIS HIGHNESS THE MAHARAJAH OF GWALIOR
Mahmoodi muslin ; thread used for fabrics of
Chunderee manufacture
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING
BAHADOOR, G.C.S.I., of Marwar
Cotton fabrics
- 3 HIS HIGHNESS THE MAHARAJAH OF JODH-
PORE
Black muslin
- 4 THE JHALLAWAR CHIEF
Piece of cloth
- 5 BABOO HORRO MOHUN MOOKERJEE, Hooghly
Piece muslin, fine ; piece striped cotton
- 6 MURRY MOHUN ROY, Dacca
Muslins, &c.
- 7 JUGGUT CHUNDER DOSS, Dacca
Muslins, &c.
- 8 PUNNAH LALL, Goonah, Central India
Piece muslin, 'Nowchokee ;' three pieces
muslin, 'Mahmondi,' of country thread ; six
pieces muslin, of sorts ; specimens of country
thread
- 9 SYED ABDOL MUZEED, Dacca
Muslins, &c.
- 10 FROM AGRA
Table cloths, towellings, napkins, &c.
- 11 FROM BHAUGULPORE
Seven pieces Khankhoreesun cloth
- 12 FROM BANCOORAH
Table cloths and bathing towels
- 13 THE COLLECTOR OF BEERBHOOH
Table cloths and napkins
- 14 DEPUTY COMMISSIONER OF CHITTAGONG,
Hill Tracts
Two bales cloth, native manufacture

- 15 FROM DINAPORE
154 specimens of table linen, towellings, duster cloths, &c.; two pieces of horse-cloth
- 16 DEPUTY COMMISSIONER, Hill Tracts
A piece of cloth
- 17 THE COLLECTOR OF MIRZAPORE
Cotton fabrics
- 18 THE OFFICIATING COLLECTOR, Purneah
Seven pieces Kankhoreesun cloth
- 19 COLLECTOR OF RUNGPORE
Two samples of country cloth
- 20 FROM MEERUT
'Jai namaz' of cotton; 'Paharee' cloth
- 21 FROM NUDDEA DIVISION
Table-cloth
- 22 FROM THE JAIL, Patna
Four table-cloths; twelve towels; twelve table napkins
- 23 THE NIZAM OF LOODIANA
Cotton cloths
- 24 MULICK FEROZE KHAN, of Rawul Pindee
A chuch lungi or scarf
- 25 AHMED SHAH, Loodiana
Cotton cloths
- 26 FROM DELHI, per Municipal Committee
White muslin turban; a turban called 'Pach'
- 27 FROM HAZARA, per the Deputy Commissioner
Fine lungi or dark blue scarf, with gold twilled border
- 28 FROM RAHOON, Jullundur District, per Deputy Commissioner of Jullundur
A 'ghati,' fine cotton cloth; lungi or scarf
- 29 HIS HIGHNESS THE RAO OF KUTCH
Dungaree and other cloths
- 30 FROM BELGAUM
Dungaree cloth
- 31 FROM BROACH
Table-cloths, towels, and napkins
- 32 FROM HOOBLEE, Dharwar
Towels, table cloths, napkins, &c.
- 33 FROM HYDRABAD, Sind
Table-cloths, towels, and napkins
- 34 FROM JACOBABAD, Upper Sind
Coarse cotton cloth
- 35 FROM KHORA, Khyrpoor
Coloured sosees
- 36 FROM KURRACHEE
Coarse cotton cloth
- 37 FROM PUNDERPOOR, Poona
Cholekhun and Kudecha cloths
- 38 FROM SHOLAPOOR, Poona
Cholekhun cloths, &c.
- 39 HIS HIGHNESS THE NIZAM'S MINISTER, Hyderabad
Cotton yarn
- 40 ANGAR CHETTY, Madras
Table-cloths, towels, &c.
- 41 ANGERI CHETTY AND PONNERI JAUGAMA CHETTY, Manellore, in the Zemindary of Kalastry, Arcot
Plain muslin
- 42 HUNTER, DR., Madras
Arnee muslins, table-cloths, towels, &c.
- 43 MOMEN ABDULKADAR, Kurnool
White muslin, handkerchief, and turban pieces
- 44 FROM BANGALORE, Mysore
Table cloth, towels, and napkins, manufactured at the Central Jail
- 45 FROM CHITULDROOG, Mysore
Towels and napkins; cotton thread
- 46 FROM KISTNAH DISTRICT
Palampores
- 47 FROM SALEM DISTRICT
Tent cloth
- 48 FROM SOUTH ARCOT
Two table-cloths, 24 napkins
- 49 FROM TINNEVELLY
Cotton cloth
- 50 FROM UPPADA, Godavery District
Muslin pieces
- 51 FROM VENTAPOLLEM, Kistna
Ventapollem cloth, &c.
- 52 FROM VIZAGAPATAM
Towels, napkins, trowserings, &c.
- 53 FROM RANGOON
Four rolls of cotton tape

CLASS XXVIII.

Thread and Fabrics of Flax, Hemp, &c.

- 1 FROM BHAUGULPORE
Raw Khoonee sailcloth
- 2 COLLECTOR OF BOGRA
Specimen of cloth
- 3 COMMISSIONER OF DACCA, Bengal
Handkerchief of plantain fibre
- 4 COLLECTOR OF DINAGEPORE
Four pieces of gunny cloth, &c.
- 5 COLLECTOR OF RUNGPORE
Gunny bags
- 6 FROM BIMLIPATAM, Madras
Gunny cloth
- 7 FROM MADAKASIRA, Bellary
Two pieces of gunny cloth made of ambari fibre
- 8 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Fabrics made from bark of unjam tree, and from root-fibres of pantas or kakee

- 9 FROM RANGOON
Gunny bag
- 10 MACPHERSON, LIEUT.-COLONEL R., Singapore
Bugis cloth, made from fibres of the leaves of Gebang palm

CLASS XXX.

Carded Wool and Woollen Fabrics.

- 1 HIS HIGHNESS THE MAHARAJAH RAMSING, G.C.S.I., BAHADUR OF JYEPORE
Two blankets
- 2 BIKANER DURBAR
Blankets, woollen
- 3 TONK DURBAR
Woollen prayer cloth, Mahomedan
- 4 FROM MARWAR, per Political Assistant, Rajpootana
Three felt blankets
- 5 FROM MEERUT
'Jai namaz' of wool; two specimens of best black blanket
- 6 DEWAN SING, Cashmere
Pushmeena or shawl-wool cloths
- 7 HIS HIGHNESS THE RAO OF KUTCH
Coarse and fine cumblies
- 8 FROM KURRACHEE
Blanket and woollen yarn
- 9 FROM RANEBEDNOOR, Dharwar
White and black cumblies
- 10 FROM SOOPA, Surat
Choomallas
- 11 KURUVA GOVINDA-GADDOO, Kurnool
A black blanket and a striped ditto
- 12 KURUVA YADAGERI, Kurnool
A white blanket
- 13 FROM CHITULDROOG, Mysore
Cumblies and woollen yarn
- 14 FROM KOODATANI, Bellary
Woollen blanket
- 15 FROM MYSORE
Nine sorts of cumblies
- 16 FROM NORTH ARCOT
One cumby
- 17 FROM TOOMKOOR, Mysore
Two cumblies
- 18 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
A blanket

CLASS XXXI.

Silk and Silk Manufactures.

- 1 HIS HIGHNESS THE RAJA OF NAGODE, per Political Assistant
Piece of kincob
- 2 TONK DURBAR
Piece of silk cloth
- 3 BABOO LALL LALARY DUTT, Calcutta
White and yellow silk and crape silk from the Anna filature
- 4 BABOO DABEE PERSHED, Benares
Kincobs and other silk fabrics
- 5 BUNGSHEE MOHUN DOSS, of Sooreg, Beerbhoom
Raw silk
- 6 CHUNDER CHAN SYLHUT, Benares
Kincobs and other silk pieces
- 7 ERSKINE, H. C., of Elambazar
Tussur silk cloth from Beerbhoom
- 8 KUMAR HARENDRA KRISHNA, Nuddea
Silk
- 9 PORESH NAUTH MOOKERJEE, OF KHOONDOLA, Beerbhoom
Silk cloth and raw silk
- 10 LAYARD, COLONEL, Bhaugulpore
Thirty pieces of Tussur silk, plain and coloured
- 11 LOWIS, J. M., of Sooreg
Tussur silk cloth, from Beerbhoom
- 12 LYALL, JAMES, AND COMPANY, Berhampore
Bengal silk and chussum, prepared at their Rangamatte Filature
- 13 JARDINE, SKINNER, AND COMPANY, Calcutta
Surdah, Soorsah, Radnagore, and Commercolly raw silks
- 14 REHLING, MR., Rungpore
Fine and coarse silk cloths
- 15 FROM BANCOORAH
Piece goods of tussur and other silks, plain and coloured
- 16 THE COLLECTOR OF BEERBHOOM
Silk piece-goods, including tussurs
- 17 OFFICIATING MAGISTRATE, Beerbhoom
Tussur and other silk cloths, and raw silks
- 18 FROM BENARES
Kincobs (loom-embroidered cloths in gold and silver) of various patterns
- 19 FROM BHAUGULPORE
Collection of piece goods of tussur silk and tussur and cotton, plain and coloured
- 20 THE COMMISSIONER OF GYAH
Tusser silk
- 21 THE COLLECTOR OF HOOGHLY
Silk piece goods, tussur and plain, and raw silk

- 22 FROM COMMISSIONER, Raj Division, Moors-hedabad
Silk fabrics of colours
- 23 COLLECTOR OF RUNGPORE
Specimens of fine and coarse silks
- 24 CHOWDREE MAHOMED BUKSH, of Lahore
Black and crimson 'paranda' or silk ornaments used by women to plait into the hair; two girdles
- 25 DEVI SUHAI AND CHUMBA NULL, Umritsur
Piece of striped scarlet silk, and skeins of silk thread, from silk reared at Umritsur
- 26 POWELL, B., Lahore
Book containing samples of Lahore silks
- 27 FROM UMRITSUR, per Local Committee
Check silk loongee; goolbuddan or striped silk; purple silk 'daryai dhuss chan'
- 28 FROM RAWUL PINDEE, per Municipal Committee
Striped silk 'Susi'
- 29 HIS HIGHNESS THE RANA OF POREBUNDER
Superior silk cloths used in making women's garments
- 30 FROM AHMEDABAD
Silk cloths of various colours; kincobs, tuffu, tas, and other cloths
- 31 FROM MANDAVIE, Kutch
Silk cloths, musroo, &c.
- 32 FROM SURAT
Coloured silk cloths, kincobs, &c.
- 33 FROM TANNA
Silk cloths
- 34 FROM TATTA, Kurrachee
Silk fabrics
- 35 FROM YEOLA, Ahmednuggur
Coloured cloths
- 36 HIS HIGHNESS THE NIZAM'S MINISTER OF HYDERABAD
Kincobs, Mushroo, and Imroo pieces
- 37 ALAGERI CHETTI, Trichinopoly
Silk handkerchiefs
- 38 ARA COTRAM BUNGAROO CHETTY, Colligal, Coimbatore
Raw silk; silk thread of various colours, and silk cloths
- 39 CHINNIA CHETTY, Colligal, Coimbatore
Two silk handkerchiefs
- 40 COMARA SAWMY CHETTY, Trichinopoly
Silk handkerchiefs
- 41 NANNU SETTI, Madura
Cloth, spotted, for woman's jacket
- 42 PATTUNAL BALAVIRAMUNI CHETTY, Walla-japet in Wallaja Taluk, N. Arcot
Silk fabric called kutini
- 43 POOTTAJJEE CHETTY, Colligal, Coimbatore
Silk thread, silk scarfs, &c.
- 44 RAMAI NAGIEN SETTI, Madura
Cloth of silk, cotton, and lace; imitation of Benares manufacture
- 45 SHAW, F. G., Oosoor, Salem
Acclimatised Italian silk
- 46 FROM BANGALORE
Raw silk; silk cloth and handkerchiefs
- 47 FROM CHITULDROOG
White silk handkerchiefs and silk cloth
- 48 FROM COLAR
Coloured silk
- 49 FROM HASSAN
Coloured silk
- 50 FROM MASULIPATAM
Silk cloths
- 51 FROM MYSORE
Seven sorts of silk; coloured silk
- 52 FROM SALEM DISTRICT
Raw silk
- 53 FROM TANJORE
Silk pieces, various
- 54 FROM TOOMKOOOR
Coloured silk
- 55 FROM VELLORE, North Arcot
Raw silk and dyed silk thread
- 56 FROM PEGU
Silks of two kinds
- 57 RIPLEY, MAJOR, Prome
Raw silks, and silk piece goods
- 58 FROM TOUNGOO, Burmah
Raw silk

CLASS XXXII.

Shawls.

- 1 HIS HIGHNESS THE MAHARAJAH OF GWALIOR, G.C.S.I.
A shawl
- 2 HIS HIGHNESS THE MAHARAJAH RAJENDRA PERTAB, of Hutwa
An embroidered shawl
- 3 FROM DACCA, per Assistant Commissioner
Black Cashmere shawl
- 4 FROM TATTA, Kurrachee
Silk shawl
- 5 THE NIZAM OF LOODIANA
Rampoor shawls
- 6 AHMED SHAH, Loodiana
Rampoor shawls
- 7 AHMED KHAN, Cashmere
Square shawl—needleworked
- 8 AHMED KALOO, Cashmere
Shawls
- 9 ASSUN SHAH, Loodiana
Shawl with four coloured centre; brown shawl, half-braided

- 10 AZEEZ KHAN, Cashmere Shawls
- 11 DEBI SAHAI and CHUMBA MULL, Umritsur Grey, brown, and white shawls; needleworked shawls; chudders
- 12 DEWAN KIRPARAM, Cashmere Square and long shawl, loom-made, showing pattern on both sides
- 13 DEWAN SING, Cashmere Square and long shawls, loom-wove; ditto, gold embroidered
- 14 MEHR SHAH, Cashmere Shawls
- 15 MOOKHTAR SHALO, Cashmere Shawls—loom-wove
- 16 NATHA SING, Cashmere Shawl or chudder, in two pieces
- 17 NATHOO, of Cashmere Square shawl—loom-woven
- 18 NOOR SHAH, Cashmere Shawls
- 19 RASUL SHAH, Cashmere Square shawls—loom-wove
- 20 SAIFULLAH, Cashmere Square shawls—needleworked
- 21 Low, J., Trigonometrical Survey, Srinuggur White embroidered shawl and scarf
- 22 FROM UMRTSUR, per Local Committee Embroidered shawls
- 23 FROM GOOJRAT, per Deputy Commissioner Shawls and scarfs
- 24 FROM BANGALORE, Mysore Silk shawls
- 25 NORMAND & CHANDON, MESSIEURS, Paris Cashmere shawls
- 26 LES FILS DE C. OULMAN, Paris Cashmere shawls
- 5 BABOO SREEDHUR SOHY, of Mojah, per Commissioner of Patna Embroidered belt
- 6 HURRY MOHUN ROY, Dacca, per Commissioner Silver embroidered net shawl; net dress, in six parts; neckties
- 7 JUGGUT CHUNDER DOSS, Dacca, per Commissioner Gold and silver embroidered net shawl, scarfs; dress, in ten parts; neckties
- 8 SHEIK GHOLAB, Calcutta Sachet, embroidered with gold; letter envelope, embroidered with gold; embroideries ('chickun work') on muslin; pine-apple fibre cloth, &c., comprising handkerchiefs, skirts, sleeves, collars, &c.
- 9 COMMISSIONER OF DACCA, Bengal Various embroideries, applied to the decoration of articles of wearing apparel
- 10 POLITICAL AGENT, Marwar Embroidered cloth
- 11 FROM COMMISSIONER, Raj Division, Moorshedabad Embroidered table-cloth; purse; borders
- 12 POLITICAL ASSISTANT, Nagode Embroidered purse, kincob
- 13 FROM PATNA Specimens of gold and silver thread, lace, &c.
- 14 LALL RANNI MULL, Delhi Three coloured net scarfs, embroidered in gold
- 15 MISTAKEEN, Kussor, Lahore District Embroidered bags and mat
- 16 WINTER, Mrs., S.P.G. Mission, Delhi Lace made by native ladies
- 17 FROM DELHI, per Municipal Committee Net scarf, embroidered with gold; several yards of net-'kandain'
- 18 FROM MYNPOORIE, per Central Committee, N.W. Provinces An embroidered cloth
- 19 HIS HIGHNESS THE JAM OF NOWANUGGUR Cholee and other fabrics
- 20 HIS HIGHNESS THE RAO OF KUTCH Embroideries
- 21 FROM AHMEDABAD Table cover, bordered with gold, silver, and silk work
- 22 FROM HYDRABAD, Sind Table and cushion covers, gold and silver embroidered
- 23 FROM KHYRPOOR Table covers
- 24 FROM SAWUNTWAREE Cushions, gold embroidered
- 25 FROM TATTA, Kurrachee Silk table cover, &c.; gold lace

CLASS XXXIII.

Lace, Net, Embroidery, and Small Ware Manufactures.

- 1 THE CHIEF OF BERONDA, in Bundlekund Embroidered table-cloth; 'gouldusta,' a case containing embroidered flowers; other embroideries in gold and silver
- 2 THE CHIEF OF CHERKHAREE, per Assistant Political Agent, Bundlekund Embroidered flowers
- 3 THE CHIEF OF CHUTTERPORE, per Assistant Political Agent, Bundlekund Embroidered table-cloth
- 4 BABOO DABEE PERSHED, Benares Embroidered table-mats

- 26 FROM SHIKARPOOR, Sind
Table cover, silk embroidered, and gold fringed
- 27 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.
Lace of various kinds, made by girls of the London Mission School, Travancore, under the superintendence of Mrs. Duthie; gold head-dresses, &c.
- 28 HIS HIGHNESS THE NIZAM'S MINISTER OF HYDERABAD
Gold and silver lace and thread, &c.
- 29 CALDWELL, REV. DR., Tinnevely
Samples of lace made by the girls in the Mission School
- 30 HUNTER, DR., Madras
Dress embroidered with beetles' wings
- 31 FROM KISTNAH DISTRICT
Laced dhoty and handkerchiefs
- 32 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.
Cloths used to spread for meals and covering food pots

CLASS XXXIV.

Hosiery and Underclothing and Articles appertaining thereto, including Walking Sticks, &c.

- 1 HIS HIGHNESS THE MAHARAJAH OF BHURTPORE
Two chowries of split ivory
- 2 HIS HIGHNESS THE MAHARAJAH OF GWALIOR, G.C.S.I.
Hand fans
- 3 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Fans of bamboo reed, sandalwood, khus-khus grass, chowrie, umbrella, &c.
- 4 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Three ornamental chowries, or fly fans
Five chowries, made of tail of wild ox
- 5 HIS HIGHNESS THE MAHARAJAH OF JODHPORE
Ivory walking-stick
- 6 HIS HIGHNESS THE MAHARAJAH OF REWAH
State umbrella, embroidered and silver mounted
- 7 THE KOTAH CHIEF, Rajpootana
A chowry (fly fan), with sandalwood handle
- 8 THE CHIEF OF JHALLAWAR, per Political Agent
A walking-stick
- 9 THE CHIEF OF MYHERE, Nagode, per Political Assistant
A horn walking-stick, carved in imitation of bamboo
- 10 TONK DURBAR
Walking-sticks of wood, from Marwar
- 11 BHURTPORE DURBAR
Four chowries, or fly fans, with ivory and sandalwood handles
- 12 BABOO SREEDHUR SOHY, of Mohja, per Commissioner of Patna
An embroidered umbrella; ivory and sandalwood chowries with silver handles
- 13 FROM BANCOORAH
Pair fans
- 14 FROM BHAUGULPORE
Eighteen fans, of sorts
- 15 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Grass necklace
Six necklaces of braid
Four walking-sticks
- 16 COMMISSIONER OF DACCA, Bengal
Three ivory fans
- 17 THE COLLECTOR OF HOOGHLY
Fans and whisks of peacocks' feathers
- 18 FROM COMMISSIONER OF RAJ DIVISION, Moorshedabad
Embroidered umbrella, fans, purses, &c.
- 19 DEPUTY COLLECTOR, Monghyr
Eighteen fans, of sorts
- 20 FROM MARWAR, per Political Agent, Rajpootana
Eight khuskhus punkas
- 21 POLITICAL ASSISTANT, Nagode
Chowry, ivory, mounted in gold and silver
- 22 FROM SARUN
Fourteen pairs of chowries, of sorts
- 23 FROM NUDDEA DIVISION
Three fans of peacock's feathers and palm leaves
Four chowries
An umbrella
- 24 LALL RUMMEE MULL, Delhi
Embroidered fan
- 25 POWELL, B., Lahore
Yak chowrie, with silver handle set with turquois
- 26 FROM UMRITSUR, per Local Committee
State umbrella, gold embroidered fans
- 27 FROM JACOBABAD, Upper Sind
Leather wrapper for child
- 28 FROM KURRACHEE
Walking-stick
- 29 FROM POONA
Fans made of peacocks' feathers
- 30 FROM SAWUNTWAREE
Fans bordered with peacocks' feathers
- 31 FROM BANGALORE, Mysore
Carved sandalwood stick, women's cotton cloths
- 32 FROM CHITULDROOG, Mysore
Women's cotton cloths

- 33 FROM ELLORE, Godavery District**
Fans made of palmyra-leaf and tale
- 34 FROM MYSORE**
Carved sandalwood chummrah, ivory earrings, &c.; fan woven in fibre
- 35 FROM PEDDAPURAM, Godavery District**
Fans made of peacock feathers
- 36 FROM SHEMOGAH**
Carved sandalwood fan, &c.
- 37 FROM RANGOON**
Four gilt umbrellas; one white ditto, one black ditto
- 38 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.**
Twelve walking-sticks
- 39 LEVESON, E. J., Singapore**
Malacca canes, &c.
- 40 WARD, E., Wigmore-street, London**
Fans made of plumage of Indian jungle-cock

CLASS XXXV.

Clothing for both Sexes.

- 1 HER HIGHNESS THE SECUNDR A BEGUM OF BHOPAL, G.C.S.I.**
A complete costume of kincob, and rich silk
- 2 HIS HIGHNESS THE MAHARAJAH OF BHURTPORE**
Suits of clothing worn by the Jât nobility, labouring class, &c.
- 3 HIS HIGHNESS THE MAHARAJAH OF GWALIOR, G.C.S.I.**
Turban pieces, scarfs, and shoes worn by Mahrattas, &c.
- 4 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore**
Garment pieces, with ornamental borders, cap, shoes
- 5 HIS HIGHNESS THE MAHARAJAH OF JODHPORE, Benares**
Suits of apparel
- 6 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore**
'Har' and 'budhee,' double and single garlands of gold and thread lace; 'sulka' or garland of cow hair; articles of clothing, cloaks, shoes, &c.
- 7 HIS HIGHNESS THE MAHARAJAH OF REWAH, per Political Assistant, Nagode**
Complete suits of garments for man, woman, and child
- 8 CHIEF OF CHERKHARE, per Assistant Political Agent, Bundelkund**
Two caps, embroidered
- 9 THE CHIEF OF CHUTTURPORE, per the Assistant Political Agent, Bundelkund**
Dresses, native, male and female
- 10 THE INDURGURH CHIEF, Rajpootana**
Clothing for both sexes
- 11 THE JHALLAWAR CHIEF**
Suit of male attire, worn by the higher castes of Rajpoots
Suit of female attire, worn on festival occasions
Suit of male attire of the peasant class
Suit of female attire of the peasant class
- 12 THE KOTAH CHIEF, Rajpootana**
Male and female attire worn by Rajpoots of the higher grade
Male and female attire worn by middle class
Male and female attire worn by peasantry
- 13 THE CHIEF OF MYHERE, per Political Assistant, Nagode**
A pair of gold and silver embroidered shoes from Bundelkund
- 14 BHURTPORE DURBAR**
Kincob 'labada,' a cloak worn by native gentlemen of rank
- 15 BIKANERE DURBAR**
Clothing for both sexes
- 16 JYSSULMERE DURBAR**
Clothing for both sexes
- 17 KEROLEE DURBAR**
Clothing for both sexes
- 18 KISHENGURH DURBAR**
Garments for both sexes
- 19 MARWAR DURBAR**
Clothing of natives, male and female
- 20 TONK DURBAR**
Clothing, for both sexes; shoes, &c.
- 21 MEER SHAMUT ALI KHAN, Bahadoor, Superintendent of Rutlam**
Pair of shoes
Suits of Rajpoot clothing for man, woman, and child
- 22 DOWLEANS, A. M., Calcutta**
Commercolly feather work; swansdown muffs, boas, &c.
- 23 FROM BENARES**
Dooputtas, peetambers, dhotees, and other garments, in brocaded and coloured silks, &c.; ten sets of dresses, as worn by native men, Benares; ten sets of dresses, as worn by native women, Benares; models of various forms of the turban or 'pugree'
- 24 POLITICAL AGENT, Bhopal**
Collection of garment pieces, silk, muslin and cotton, richly embroidered in gold, silver, and silk of colours
- 25 COLLECTOR OF BURDWAN**
Three dhotees; tussur, &c.
- 26 FROM GOONA, Central India**
Clothing, cotton and silk, for natives of both sexes
- 27 COMMISSIONER OF GYAH**
Six articles of female dress

- 28 POLITICAL AGENT, Marwar
Suits of apparel, as worn by higher and peasant classes in Marwar
- 29 FROM MYNPOORIE, per Local Committee, N. W. P.
Two pair of sandals of inlaid wood
- 30 POLITICAL ASSISTANT, Nagode
Pair of Bundlekund shoes, inlaid with gold ; pair of wooden shoes, with ivory flower made to open on pressure
- 31 FROM NUDDEA DIVISION
Silk and cotton garment pieces
- 32 COMMISSIONER OF PATNA
Five pairs embroidered shoes
- 33 FROM COMMISSIONER, Raj Division, Moorshedabad
Two embroidered caps
- 34 FROM SEROHIE
A turban
- 35 CHOWDREE SHER KHAN, Rawul Pindee
Embroidered shoes
- 36 DEVI SUHAI and CHUMBA MULL, Umritsur
Embroidered chogas and neckties
- 37 DEWAN KIRPA RAM, Cashmere
Necktie in double pushmina, or velvet, showing the same on both sides
- 38 DEWAN SING, Cashmere
Opera cloak, embroidered ; black embroidered dress, scarf, chogas
- 39 GHUFFOOR JOO, Cashmere
Embroidered coat lined with feathers ; ditto lined with fur
- 40 HUSSAN SHAH, Loodiana
Embroidered choga, burnous, caps, slippers, pouches, gloves, socks
- 41 LALL RUMMEE MULL, Delhi
Embroidered caps
- 42 MAUNK CHUND, Delhi
Embroidered mantilla, scarfs, burnous, &c.
- 43 MUSTAKEEN, Kussoor, Lahore District
Embroidered shoes
- 44 SARFRILLAH, Cashmere
Three pair needlework slippers, pushmina shirts, scarfs, embroidered caps, neckties
- 45 SUNT LALL, Delhi
Burnous, embroidered ; slippers, neckerchiefs, scarfs
- 46 BIRCH, MAJOR, Bunnoo, per Deputy Commissioner
Pyjamas worn by women of Marwah, shirt ornamented with pieces of glass, sandals
- 47 BRISTOW, COLONEL, Jhelum
Embroidered shoes
- 48 COLDSTREAM, W., Dhurmsala
Leather trowsers, gloves, and boots
- 49 FROM UMRTSUR, per Local Committee
Gold-embroidered choga, embroidered belt, and shoes
- 50 FROM DELHI, per Local Committee
Embroidered shoes ; turban
- 51 FROM ROHTUCK, per Deputy Commissioner
A mandeel or gold-woven scarf on turban
- 52 HIS HIGHNESS THE JAM OF NOWANUGGER
Turbans, &c.
- 53 THE THAKORE SAHIB OF GONDUL
Turban, &c.
- 54 THE THAKORE SAHIB OF MORVEE
Handkerchiefs used by natives of rank
- 55 FROM AHMEDNUGGUR
Various garments worn by male and female
- 56 FROM AHMEDABAD
Numerous garments
- 57 FROM BARAMUTTA, Poona
Garments
- 58 FROM BHOOJ, Cutch
Caps, slippers, &c.
- 59 FROM GUNBUT, Khyrpoor
Cloths with silk borders
- 60 FROM HOOBLEE, Dharwar
Various garments of silk, &c.
- 61 FROM HYDRABAD, Sind
Caps, gold and silver embroidered
- 62 FROM INDAPOOR, Poona
Woman's garment
- 63 FROM JACOBABAD, Upper Sind
Shoes and sandals
- 64 FROM KHYRPOOR
Embroidered caps
- 65 FROM KURRACHEE
Cotton chemise
- 66 FROM MANDAVEE, Surat
Sarees worn by women of the lower classes
- 67 FROM POONA
Silk garments
- 68 FROM RANEBEDNOOR, Dharwar
Silk sarees
- 69 FROM SAWUNTWAREE
Embroidered caps and sandals
- 70 FROM SHIKARPOOR
Chogas, boots, dresses, caps, &c.
- 71 FROM TATTA, KURRACHEE
Dresses, chemise, drawers, &c.
- 72 HIS HIGHNESS THE NIZAM'S MINISTER, Hyderabad
Various articles of clothing from Amurchinta, Aurungabad, Nandair, Bheerbhoom, &c.
- 73 RAJARUTNA MOODLY, Salem
Lace-embroidered garment
- 74 SOUKAR APEEB SAIB, Salem
Lace-embroidered silk garments
- 75 GOODRICH, MR., Poornagada, in Goomsur
Maliah, Ganjam
Wearing apparel of the Khonds

- 76 HUNTER, DR., Madras**
Various garments
- 77 ARNI, in Poloor Taluk, Arcot**
Women's cloths
- 78 FROM BANGALORE**
Native girls' dress, scarfs, &c.; women's cloths
- 79 FROM BELLARY DISTRICT**
Various samples of women's clothing
- 80 FROM COLLIGAL, Coimbatore**
Crimson silk head-cloths, gold-embroidered, &c.
- 81 FROM CHITULDROOG**
Red silk turbans, women's cotton cloths
- 82 FROM COORG**
One native dress
- 83 FROM CUDDOOR**
Girdle used by Mulnad people, with billhook attached
- 84 COLLECTOR OF GANJAM**
Straw hats; silk garments
- 85 FROM HASSAN**
Lumbany's dress, native shoes, &c.
- 86 FROM KISTNAH DISTRICT**
Various garments, consisting of palampores, dhoties, and handkerchiefs
- 87 FROM MASULIPATAM**
Various silk garments
- 88 FROM SALEM DISTRICT**
Laced garments
- 89 FROM UDIPY, in South Canara**
Leaf caps used by labourers, &c.
- 90 FROM UPPADA, Godavery District**
Turbans
- 91 FROM VELLORE, Arcot**
Women's cloths
- 92 RIPLEY, MAJOR, Promé**
Male and female garments worn by the Karens
- 93 ASSISTANT DEPUTY BHEEL AGENT in the**
Burmese State
Shoes for male and female Bheels
- 94 THEOBALD, DR., Rangoon**
Male and female garments worn by Karens, Burmah
- 95 FROM RANGOON**
Model of the King of Oude's crown; dress of a Mindha
- 96 FROM PEGU**
Strings used for twining below the knee, and supposed to strengthen the calf of the leg when ascending high mountains
- 97 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.**
Garments worn by Malay men and women
- 98 WHAMPOA, MR., Singapore**
Malay lady's wardrobe and toilet complete

CLASS XXXVI.

Jewellery and Precious Stones.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore**
Six personal ornaments
- 2 HIS HIGHNESS THE MAHARAJAH OF JODHPUR**
A necklet of pure gold
- 3 HIS HIGHNESS THE RAJAH OF NAGODE, per**
Political Assistant
Complete set of twenty-six gold and silver ornaments, worn by a lady of Bundelkund
- 4 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore**
Bangles, &c., set with precious stones and pearls; 'tamrahs' carbuncles found in Jeypore
- 5 THE JAGEERDAR OF ALLIPORE, per the As-**
sistant Political Agent, Bundelkund
Ring, gold, formed of several intertwined wires
- 6 THE JAGEERDAR OF PALDEO, per Assistant**
Political Agent, Bundelkund
Necklaces, worn by mendicants
- 7 KISHENGURH DURBAR**
Garnets and carbuncles
- 8 MARWAR DURBAR**
Ivory bracelets
- 9 TONK DURBAR**
Precious stones; knife handle of fine white crystal
- 10 MEER SHAMUT ALI KHAN, Bahadoor, Super-**
intendent of Rutlam
Set of 'chooree,' or bangles, ivory
- 11 BRIJRUPTAN DASS, Ghazepore**
Sets of glass choories
- 12 DOWLEANS, A. M., Calcutta**
Bracelets, necklets, brooches, and earrings of tiger claws, set in gold; bracelets, brooches, &c. &c. gold, set with turquoise; silver filigree articles from Cuttack
- 13 HUTCHINSON, DR.**
Finger, nose, and toe rings, and other ornaments worn by native women
- 14 RAVENSHAW, H., Cuttack**
Silver bracelets, buckles, earrings, necklaces, brooches, &c.
- 15 FROM BANCOORAH**
Pair of shell bangles
- 16 FROM BANDA**
145 specimens agates, bloodstones, jaspers, &c.
- 17 FROM BHAUGULPORE**
Earrings, bracelets, brooches, and other personal ornaments; in gold, silver, coral, amber, turquoise, horn, wood, &c.

18 FROM BENARES

Complete sets of ornaments worn by the natives of Benares

19 FROM CALCUTTA, per Secretary to Government of India

Tiara set with diamonds, pearls, and emeralds ; two pearl necklaces ; an enamelled brooch, necklace, and bracelets

20 COMMISSIONER OF DACCA, Bengal

Brooches, bracelet, combs, &c. of silver ; gold head-dress

21 DEPUTY COMMISSIONER, Darjeeling

Personal ornaments worn by the natives of Bhotan, Sikkim, and Darjeeling

22 FROM GHAZEEPORE

Pair of 'choories,' glass bangles

23 FROM MEERUT

'choories,' (bracelets or bangles) of glass

24 POLITICAL AGENT, Marwar

Bracelet, brooches, necklet, and earrings of the best Pertabgurrh enamel work ; carbuncles

25 DEPUTY COLLECTOR, Monghyr

Eight sets chains and bracelets of black-wood and horn ; large necklet ; watch guard ; five bracelets of various patterns ; five brooches of various patterns ; two buckles ; dozen pair earrings

26 THE COLLECTOR OF MIRZAPORE

Bracelets of glass, lac, &c.

27 FROM NUDDEA DIVISION

Rosary of transparent stones ; eighteen female ornaments

28 FROM PATNA

Basket of ticklees, or face ornaments, used by native women

29 FROM SARUN

Series of 'choories' worn by native women

30 ABDOL RUHEEM, Sealkote

Buckles, bracelets, brooches, of Koftgharee work

31 ALLADEEN, Sealkote

Bracelets, solitaires for sleeves, buckle, brooch, ring tray, crosses, of Koftgharee work

32 ALLADITTA, Sealkote

Brooches of Koftgharee work

33 CHAJ MULL, Delhi

Armlets, locket-brooch ; earrings in gold 'babul' work ; silver filigree bracelets set with turquoise ; diamond and other rings

34 GHOUSE, Sealkote

Brooches, of Koftgharee work

35 GHOLAM MAHOMED, Sealkote

Crosses, brooches, of Koftgharee work

36 HAZARI MULL, Delhi

Coral and gold filigree brooch ; turquoise crosses ; gold buttons, links, bracelets, set with Delhi paintings ; brooches, set with pearls, turquoise, &c.

37 HEERA LALL, Delhi

Necklaces of turquoise and pearls, enamelled drops, &c. ; ditto bracelets, gold bracelets, locket in gold and turquoise, earrings in ditto, sleeve-links in ditto

38 KESRI CHUND and **BALMOKUND**, Delhi

Pair of enamelled bracelets, with dragon-head clasp set with diamonds ; necklaces, emerald and diamond head ornament, jewelled chain, armlets, earrings, &c.

39 KOOTUBDEEN, Sealkote

Crosses of Koftgharee work

40 KOOTUBDEEN ISHRAF, Sealkote

Bracelets, buckles, crosses, of Koftgharee work

41 NUBBEE BUX, Sealkote

Crosses, of Koftgharee work

42 PEER BUX, Sealkote

Brooches, of Koftgharee work

43 SHURUFDEEN, Sealkote

Bracelet, of Koftgharee work

44 COLDSTREAM, W., Dhurmsala, Punjab

Anklets

45 FROM DELHI, per Local Committee

Imitation jewellery

46 FROM GOOJERAT, per Deputy Commissioner

Brooches, of Koftgharee work

47 FROM KURNOOL, per Deputy Commissioner

Necklace of pearls imitated in silver

48 HIS HIGHNESS THE JAM OF NOWANUGGER

Necklace with pendant pearls, emeralds, diamonds, &c.

49 FROM AHMEDNUGGER

Numerous articles of jewellery

50 FROM BELGAUM

Bracelets of various patterns

51 FROM CAMBAY

Bracelets, necklaces, &c., of agate, cornelian, &c. ; and unmounted articles in agate, crystal, bloodstone, jasper, &c.

52 FROM HOOBLEE, Dharwar

Gold bangles, &c.

53 FROM KURUJGED, Dharwar

Gold brooch

54 FROM POONA

Bangles

55 FROM SHIKARPOOR

Set of armlets and toe rings

56 FROM SEHWAN, Kuitachee

Armlet of silver and stone

57 FROM SURAT

Necklaces and bracelets

58 HIS HIGHNESS THE MAHARAJAH OF TRAVANCORE, G.C.S.I.

Silver filigree bracelets, brooches, &c.

- 59 HIS HIGHNESS THE NIZAM'S MINISTER OF HYDERABAD
Gold and silver enamelled articles
- 60 GOODRICH, MR., Poornagada, in Goomsur Maliah, Ganjam
Brass bangles used by Khond brides
- 61 RASALINGUM ASARY, Trichinopoly
Gold and silver bracelets, lockets, &c.
- 62 FROM CHITULDROOG
Glass bangles
- 63 FROM HASSAN
Glass bangles
- 64 FROM RAJAHMUNDY, Godavery District
Pebbles for brooches and bracelets
- 65 LLOYD, CAPTAIN M., Rangoon
Earrings, neck-ornaments, &c.
- 66 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Four brass ear ornaments; four brass rings; two leaden rings; three ear ornaments; silver puzzle ring
- 67 FROM PEGU
Personal ornaments, worn by Ghyeiks
- 68 FROM RANGOON
Six gold chains
- 69 CAVENAGH, MAJOR-GENERAL, Singapore
Gold tiger-claw neck ornament and brooch
- 70 WHAMPOA, MR., Singapore
Silver ornaments worn by women and children
- 71 GUTHRIE, COLONEL, London
An extensive collection of articles in jade and crystal

CLASS XXXVII.

Portable Weapons.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Twenty-four articles, including mail armour, shield, firearms, swords, battleaxes, spears, and daggers; body armour of deer skin; horn bow
- 2 HIS HIGHNESS JYAJEE RAO SINDHIA, G.C.S.I., Maharaja of Gwalior
Sixty-three specimens, comprising suites of armour, matchlocks, axes, swords, daggers, lances, shields, &c.
- 3 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Matchlock, sword, with gold jewelled hilt, accoutrements, &c.
- 4 HIS HIGHNESS THE MAHARAJAH OF JODHPORE
Sword with gold mounting, matchlock and appurtenances
- 5 HIS HIGHNESS THE MAHARAJAH OF REWAH, per Political Assistant, Nagode
Sword hilt inlaid with gold, kiucob scabbard, dirk with gold hilt
- 6 THE RAJAH OF NAGODE, per Political Assistant
A matchlock of Bundlekund soldier
- 7 THE JAGIRDAR OF ALLIPORE, per the Assistant Political Agent, Bundlekund
Powder-horn of mother-o'-pearl
- 8 THE CHIEF OF BERONDA, in Bundlekund
Shirt of mail, breast, back and side-plate armour; gauntlets, helmet, with mail neck-piece
- 9 THE CHIEF OF CHERKHARE, per the Assistant Political Agent, Bundlekund
Shirts of mail; four sets of body armour, complete; gauntlets; helmet, mailed; matchlock, inlaid with gold; dagger, five blades, exposed by pressing the handle; dagger, shields, containing knife; swords, powder horn, &c., &c.
- 10 THE CHIEF OF DUTTIA, per the Assistant Political Agent, Bundlekund
Sword, with two pistols attached to the hilt; shield, with daggers on the sides, &c.; shield, with three daggers attached; sword-handle, inlaid with gold; a 'hoolimga,' a defensive weapon, with dagger, &c. attached; a dagger, double-bladed; a dagger, handle inlaid with gold
- 11 THE CHIEF OF INDURGURH, per Political Agent, Marwar
Sword, shield, powder flask, priming horn, two sets armour, &c.
- 12 THE JHALLAWAR CHIEF
Sword, saw-edged, forked blade; dagger, forked blade; one shirt of mail; one helmet of steel, chain mail attached
- 13 THE KOTAH CHIEF, Rajpootana
Sword, shield, suits of armour, and accoutrements
- 14 THE CHIEF OF MYHERE, per Political Assistant, Nagode
Mace, plated, from Bundlekund, blunderbuss-barrel inlaid with gold; powder-horn and flask set in embossed and netted silver; leather pouches worked with silver thread; embossed belt; Goorka knife with gold and silver inlaid ivory handle; dagger inlaid with gold and silver
- 15 THE CHIEF OF PUNWAH, per the Assistant Political Agent, Bundlekund
Battleaxe, dagger, and spear
- 16 THE CHIEF OF TEHREE, per the Assistant Political Agent, Bundlekund
Three matchlocks; two pairs of spears (*bhala*)
- 17 THE THAKOOR OF KOOCHARRUM, Marwar
Matchlock, inlaid with gold; lance, steel-head, inlaid with gold

- 18 TONK DURBAR**
Suit of armour, knife, pair of gauntlets, and other weapons
- 19 HUTCHINSON, DR.**
A collection of native weapons
- 20 FROM BANCOORAH**
Brass stick, containing six weapons
- 21 FROM BHAGULPORE**
A 'puta,' or knife
- 22 FROM BIJNOUR, per Central Committee, N.W. Provinces**
Two swords, two pistols, dagger, shield; a 'syef,' or thrusting sword; a 'khutta,' or cutting sword; and a 'kookree'
- 23 FROM BUNDLEKUND**
Sixteen weapons
- 24 FROM CALCUTTA, per Secretary to the Government of India**
One dagger with green crystal handle; one dagger with white crystal handle; two swords with enamelled handles
- 25 OFFICIATING COMMISSIONER, Cooch Behar**
Sword, shield, dagger, helmet, arrows and quiver, &c.; series of Bhotan arms
- 26 FROM DACCA, per Assistant Commissioner**
Blowpipes and arrows; spears
- 27 DEPUTY COMMISSIONER, Darjeeling**
A knife (*puta*), Bhotan
- 28 POLITICAL AGENT, Marwar**
Mail armour, spears, bows and arrows, hankus, &c.
- 29 POLITICAL ASSISTANT, Nagode**
Matchlock, blunderbuss, knives, &c., as used by Bundlekund soldiery; shield, sword, dagger, &c.
- 30 FROM SEROHIE, per Political Agent, Rajpootana**
Sword, daggers, bamboo bows, arrows, &c.
- 31 HIS HIGHNESS THE MAHARAJAH OF CASHMERE**
Single, double, and treble-barrelled rifles
- 32 THE NAWAB OF PALONDEE, Delhi**
Two daggers (Damascus steel), velvet and gold mountings
- 33 THE NAWAB SURFURAZ KHAN, of Dera Ismael Khan**
Embossed shield of rhinoceros hide
- 34 ABDOOL RUHEEM, Sealkote**
Model Armstrong gun, in Koftgharee work
- 35 INAYUT ULLAH and IMAM BUX, Lahore**
Head piece, coat of mail and leggings of chain armour; set of Sikh armour in four pieces; shield, swords, plumed helmet, and four daggers
- 36 KOOTUBDEEN ISHRAF, Sealkote**
Dagger, two swords, of Koftgharee work
- 37 NOOR AHMED, Sealkote**
Three shields, sword hilt, of Koftgharee work
- 38 SHURFDEEN, Sealkote**
Shield, partially inlaid, double-barrelled gun, Koftgharee work
- 39 BIRCH, MAJOR, Bunnoo**
Shooting-belt with accessories, as used by the wild tribes of Derajat and Bunnoo
- 40 HAMILTON, COL., Bengal Staff Corps, Delhi**
A collection of arms, thirty-six in number
- 41 FROM DERA ISMAEL KHAN, per Deputy Commissioner, Punjab**
Matchlock and powder-flask
- 42 FROM GOOJERAT, per Deputy Commissioner, Punjab**
Inlaid shield
- 43 THE THAKORE SAHIB OF GONDUL**
Dagger sheath of worked gold
- 44 HIS HIGHNESS THE RAO OF CUTCH**
Shields, spears, battleaxe, chain armour, &c.
- 45 FROM AHMEDABAD**
Shields
- 46 FROM AHMEDNUGGER**
Kumane bows and arrows
- 47 FROM BHOOR, in Cutch**
Knife inlaid with gold and silver
- 48 FROM JACOBABAD, Upper Sind**
Arms
- 49 FROM KHYRPOOR**
Gun, &c.
- 50 FROM SHIKARPOOR**
Bow and arrow
- 51 HIS HIGHNESS THE MAHARAJAH OF VIZIANAGARUM**
Numerous arms
- 52 HIS HIGHNESS THE NIZAM OF HYDERABAD**
Numerous arms and armour
- 53 BHUSI RAO, Kurnool**
Two daggers
- 54 GOODRICH, MR., Tontilgada, Ganjam District**
Various arms
- 55 FROM COORG,**
Various arms
- 56 FROM HASSAN,**
Various old arms, &c.
- 57 ASSISTANT COMMISSIONER OF HENGADAH, Burmah**
Karen sword
- 58 ASSISTANT DEPUTY BHEEL AGENT of the Burmese State**
Four bows, twenty arrows, two daggers and knife, as used by the Bheels
- 59 FROM PEGU**
Swords, spears, arrows, knives, and other weapons

- 60 FROM PROME
Silver-handled swords, daggers, lances, &c.
- 61 FROM RANGOON, per Deputy Commissioner
Musket, two swords, two spears, case of
poisoned arrows used by Ghyeiks, ammunition-
pouch, priming horn, crossbow, &c.
- 62 HIS HIGHNESS THE TUMONGONG OF JOHORE,
K.C.S.I.
Krisses, lances, spears
- 63 CAVANAGH, MAJOR-GENERAL O., late
Governor, Straits Settlements
Two spears
- 64 BOWREE, REV. LE PERE, Malacca
Sampeetan and quiver of poisoned arrows.

CLASS XXXVIII.

Travelling Apparatus and Camp
Equipage.

- 1 FROM SIRZA, per Deputy Commissioner,
Punjab.
Leather water-vase, used in the deserts of
Sirza
- 2 FROM AHMEDNUGGUR
Tent hooks and straps
- 3 FROM HYDRABAD, SIND
Water-bags
- 4 FROM JACOBABAD, Upper Sind
Camel saddle-bag, &c.
- 5 FROM SHIKARPOOR
Saddle-bags
- 6 HIS HIGHNESS THE NIZAM'S MINISTER OF
HYDERABAD
Leather water-bags from Nuldroog

CLASS XXXIX.

Toys.

- 1 HIS HIGHNESS THE MAHARAJAH RAMSING,
BAHADUR, G.C.S.I., of Jeypore
Dice (chowpurs) and ivory chessmen (suttrunj)
Two packs of cards (gunjeepa)
- 2 CHIEF OF CHERKHARE, per Assistant Poli-
tical Agent, Bundlekund
Puzzle bag, embroidered
- 3 THE INDURGURH CHIEF, Rajpootana
Wooden toys, &c.
- 4 THE JHALLAWAR CHIEF
Wooden toy, representing a native lady's
toilette
- 5 THE CHIEF OF MYHERE, Nagode
Model of roundabout used at Indian fairs
- 6 MARWAR DURBAR
Various kinds of toys, for children

- 7 FROM BENARES, per Commissioner
Twenty dolls dressed in native costume
- 8 COMMISSIONER, Raj Division, Moorshe-
dabad
Thirteen toys, games and puzzles of carved
ivory; chess-table
- 9 FROM MARWAR, per Political Agent, Rajpoo-
tana
Box of ivory toys
- 10 FROM PATNA
Two baskets of lacquered toys
- 11 FROM SARUN
Five ivory dolls; chessboard with puppets
- 12 FROM DELHI, per Local Committee
Chousar—a common Indian game, worked in
beads
- 13 FROM KANGRA DISTRICT
Dressed figures of a man and woman
- 14 BHOWANIS HANKER HARIVULUBH, Bombay
Sandalwood and inlaid game-boards
- 15 COWASJEE MUNCHERJEE, Bombay
Sandalwood and inlaid cribbage-boards
- 16 FRAMJEE HEERJEEBHAY, Bombay
Sandalwood chessboard and chessmen
- 17 DUFF, J. A. G., Collector of Surat
Ivory and sandalwood chessboard
- 18 FROM BOMBAY
Toys, game-boards, &c.
- 19 FROM CAMBAY
Set of chessmen of agate and bloodstone
- 20 FROM HYDRABAD, Sind
Lacquered croquet-balls, mallets, &c.
- 21 FROM JACOBABAD, Upper Sind
Six finger-catchers
- 22 FROM NOWLIGOND, Dharwar
Toys
- 23 FROM PUTTAN
Figures of animals
- 24 FROM SAWUNTWAREE
Native playing-cards
- 25 FROM SHIKARPOOR
Set of thirty-two ivory chessmen
- 26 FROM TATTA, Kurrachee
Two sets of chessmen, plain and coloured;
ivory humming-top
- 27 EDGCOME, CAPTAIN
Chessboard and men
- 28 FROM CHUNNAPATAM, Mysore
Toys, &c.
- 29 FROM MYSORE
Inlaid chess-box
- 30 FROM TINNEVELLY
Lacquered toys
- 31 FROM VIZAGAPATAM
Lacquered toys; ivory and sandalwood chess-
tables

GROUP V.**Products, Raw and Manufactured, of
Mining Industry, Forestry, &c.****CLASS XL.****Mining and Metallurgy.****Metallic Ores.**

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Iron ores from the Katcote mines, and cast-
iron derived therefrom
- 2 HIS HIGHNESS THE MAHARAJAH OF VIZIANA-
GARUM
Iron ore and plumbago
- 3 THE RAIS OF KOTEE
Iron ore, smelted iron, slag, and earths
- 4 THE CHIEF OF BIJAWUR
Iron ores, with iron and steel derived there-
from, and slag
- 5 THE CHIEF OF BERONDA, Bundlekund
Iron ore and other minerals
- 6 THE CHIEF OF DUTTIA, Bundlekund
Lead ore and other minerals
- 7 THE CHIEF OF CHUTTURPORE
Iron ores
- 8 THE CHIEF OF TEHREE
Iron ores
- 9 THE CHIEF OF PUNWAH
Iron ore, iron
- 10 MARTIN, CAPTAIN, Goona, Central India
Iron ore
- 11 RAJARUTNA MODELLIER, Salem
Gold dust
- 12 EAST INDIA IRON COMPANY
Iron ore, iron, and steel
- 13 FROM MEERUT
Iron in all stages of preparation, and copper
ore
- 14 BRISTOW, COLONEL, Jhelum, Punjab
Gold washed from the sand of the Jhelum
and other streams (contained in a small silver
casket)
- 15 FROM SEALKOTE
Iron ore
- 16 FROM POONA
Iron ore
- 17 FROM SURAT
Iron ore
- 18 GARRETT, J., Director of Public Instruction,
Mysore
Collection of thirty-one kinds of iron ores
from various localities, gold and silver ore,
and crude iron and steel
- 19 PUCKLE, MAJOR, Mysore
Native steel, and wire made therefrom

- 20 FROM BURMAH
Sheet tin
- 21 FROM RANGOON
Copper, tin, lead, zinc, antimony, &c. ; gold
leaf, silver and brass foil for pagodas
- 22 HIS HIGHNESS THE TUMONGONG OF JOHORE
Iron and tin ore
- 23 MAN, HON. COLONEL H., Penang
Thirteen kinds of tin ore
- 24 MACPHERSON, HON. COLONEL, Singapore
Tin ore
- 25 LEVESON, E.J., Singapore
Tin ore
- 26 BURN, MAJOR, Malacca
Tin ore and tin canister

Earthy Minerals.

- 27 HIS HIGHNESS THE MAHARAJAH HOLKAR OF
INDORE
Red earth, rocks from the Vindhyan range,
and bitumen
- 28 HIS HIGHNESS THE MAHARAJAH RAMSING
BAHADOOR, G.C.S.I., of Jeypore
Ten specimens of marbles from Marwar, and
carbuncles from Jeypore
- 29 MAHARANA GUMBHEERSINGHEE, Raja of
Rajpepla
Ten bags of rough agates and cornelians
- 30 HIS HIGHNESS THE MAHARAJAH OF
PUNNEAH
Coloured earths
- 31 THE RAIS OF KOTEE
White, red, and yellow earths
- 32 THE CHIEF OF BAWNEE
Hursouth muttee or white earth
- 33 THE CHIEF OF BERONDA, Bundlekund
Garoo and yellow earth, and other earthy
minerals
- 34 THE CHIEF OF BIJAWUR
Chalk
- 35 THE CHIEF OF CHUTTURPORE
Limestone
- 36 THE CHIEF OF DUTTIA, in Bundlekund
Garoo and yellow earth
- 37 THE CHIEF OF PUNWAH, in Bundlekund
Red, white, and yellow earths, sandstone, &c.
- 38 SUNDRAYYA, Tahsildar of Tripattur
Fuller's-earth, limestone, and lime
- 39 THE JAGEERDAR OF ALLIPORE
White and yellow earth
- 40 THE JAGEERDAR OF PALDEO, Bundlekund
Grey earth, clay, and pink stone
- 41 THE RAJAH OF NAGODE, per Political
Assistant
Eleven half-polished and nine polished agates

- 42 THE NAWAB OF TONK
White crystal
- 43 JEYSULMERE DURBAR
Specimens of a peculiar stone
- 44 MARTIN, CAPTAIN, Goona, Central India
Red and yellow earth
- 45 POLLARD, MAJOR, Malwa, Central India
Quartz
- 46 BANDA DISTRICT
A large collection of agates, jaspers, blood-stones, &c.
- 47 FROM MEERUT
Various specimens of sandstone, antimony, and coal or lignite
- 48 FROM BOMBAY
Collection of building stones
- 49 FROM CAMBAY
A large collection of agates and other ornamental stones
- 50 SHARMAZ SAHIB, Bellary
Limestone and lime
- 51 NATESWARA SADAPATHI, Kervetinugger, Arcot
Black stone
- 52 MCFARLANE, MR., Shevaroy Hills
Lime, limestone, and other minerals
- 53 FROM CHITTULDROOG, Mysore, per Deputy Superintendent
Red ochre
- 54 FROM CUDOOOR, Mysore, per Deputy Superintendent
Yellow ochre
- 55 FROM SOUTH CANARA, per Local Committee
Limestone from Laccadive Island, and pottery clay from South Canara
- 56 FROM HASSAN, Mysore
Steatite
- 57 FROM MADRAS
Mineral colours
- 58 FROM MYSORE MUSEUM
Striped jasper, porphyry, granite, and limestone
- 59 FROM RAJAHMUNDY
Collection of pebbles
- 60 FROM SALEM, Mysore
Corundum and other minerals
- 61 FROM SADIYERI AND PANDIPUT, Arcot
Specimens of white clay and black stone
- 62 FROM SHEMAH, Mysore
Steatite, laterite, and red ochre
- 63 FROM TOOMKOOOR, Mysore
Corundum and basalt
- 64 GALBRAITH, DALZIEL, & Co., MESSRS., Rangoon
Petroleum
- 65 THEOBALD, W., JUNR., Rangoon
Flint implements from Bundelkund and Pegu

- 66 WATSON, CAPTAIN, Burmah
Petroleum from Ramree Island and Rangoon
- 67 FROM AVA
French chalk
- 68 HIS HIGHNESS THE TUMONGONG OF JOHORE
Black clay
- 69 FISHER, F., Singapore
Kaolin
- 70 FROM PROME
Two logs of fossil-wood
- 71 FROM THE INDIA MUSEUM, London
Samples of soils from various parts of India ; and tables showing the composition of Indian soils

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Timber.

- 1 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Seventeen specimens of timbers
- 2 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Eight samples of timber
- 3 RAJOBIND SING, Rajah of Nagode
Forty-two specimens of different kinds of timbers
- 4 THE CHIEF OF MYHERE, Nagode
Specimen of aul-wood
- 5 THE CHIEF OF PUNNEAH, in Bundelkund
Three specimens of timbers
- 6 THE DEPUTY COMMISSIONER OF HILL TRACTS, Chittagong
Four specimens of timbers
- 7 MARTIN, CAPTAIN, Goona, Central India
Eleven specimens of timbers
- 8 CONSERVATOR OF FORESTS, Meerut Division
Fifty-eight specimens of timbers
- 9 COLLECTOR OF CHUMPARUN
Seven specimens of timbers
- 10 FROM CENTRAL INDIA
Eight specimens of timbers
- 11 FROM CHITTAGONG
Five specimens of timbers
- 12 FROM THE CENTRAL PROVINCES
Forty specimens of timbers
- 13 FROM CUTTACK
Five samples of timbers
- 14 FROM DARJEELING
Twenty specimens of timbers

- 15 FROM SHAHABAD
Fifteen specimens of timbers
- 16 FROM SHEMOGAH
Five specimens of timbers
- 17 FENNER, W., Forest Ranger, Sind
Nineteen specimens of timbers
- 18 FROM TANNA, per Collector
Nineteen specimens of timbers
- 19 BEDDOME, CAPTAIN R. H., Kurnod
Specimens of timber from Kurnool, Wynaad,
and Cuddapah
- 20 CLEGHORN, DR., Conservator of Forests
Cedrus deodora, section of stem
- 21 CURRAN, LIEUTENANT
Specimens of timber used in the Guncarriage
Manufactory
- 22 HUTCHINSON, LIEUT.-COLONEL C. W., Gun-
carriage Manufactory
Specimens of timber from various parts of
India, Burmah, &c.
- 23 MORGAN, MAJOR, Conservator of Forests,
Neilgherries
Thirty-five specimens of timbers
- 24 SHORT, DR. J., Travancore
Twenty-eight specimens of timbers
- 25 SUPERINTENDENT LAL BAUGH, Bangalore
Forty-one specimens of timbers
- 26 FROM COORG
Ebony
- 27 MADRAS CENTRAL COMMITTEE
Sixty-five specimens of timbers
- 28 GUNCARRIAGE FACTORY, Madras
Fifty-five specimens of timbers
- 29 FOREST DEPARTMENT, Mysore
Sixty-five specimens of timbers
- 30 DEPUTY ASSISTANT, BHEEL AGENCY,
Burmah
Forty specimens of timbers
- 31 DEEDS, H., Conservator of Forests, British
Burmah
Forty samples of timbers
- 32 FROM BURMAH
Twenty-nine specimens of timbers
- 33 MAN, HON. COLONEL H., Penang
Forty-eight specimens of timbers
- 34 THE JOHORE SAWMILLS, Singapore
Seventy-nine samples of timbers
- 35 FROM JOHORE, Singapore
Six specimens of timbers

Charcoal.

- 36 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Three kinds of charcoal
- 37 THE CHIEF OF MYHERE, Nagode
Charcoal for gunpowder

- 38 MARTIN, CAPTAIN, Goona, Central India
Eight kinds of charcoal
- 39 FROM MANPORE, per Secretary Govern-
ment of Bengal
Charcoals
- 40 FROM BURMAH
Ten kinds of charcoal
- 41 KUMAI HERENDRA K. BAHADEER, Calcutta
Gool

Miscellaneous.

- 42 FROM JACOBABAD, Upper Sind
Baskets, brooms, &c.
- 43 FROM SEHWAN, Kurrachee
Grass baskets
- 44 FROM THE COCHIN FORESTS
Rattans
- 45 FROM SINGAPORE
Rattan chairs, baskets, &c.

CLASS XLII.

Products of Shooting, Fishing, and of
the Gathering of Fruits obtained
without Cultivation.

Skins, Horns, &c.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Buffalo and deer skins, tigers' claws, hogs'
teeth
- 2 COLDSTREAM, MR., Dhurmsala
Leopard skin, bara sinha and wild goat skins,
flying squirrel, monal and argus pheasants,
and musk-bag
- 3 MARTIN, CAPTAIN, Goona, Central India
Skin of lion, lioness, and tiger, shot near
Goona
- 4 FROM CUTTACK, per Commissioner
Horns of gayal or wild buffalo
- 5 FROM KHANDEISH
Skins of animals and birds
- 6 MITCHELL, CAPTAIN J., Madras Museum
A collection of stuffed fishes
- 7 FROM BIMLIPATAM
Buffalo horns
- 8 FROM THE COCHIN FORESTS
Bisons' horns, polished
- 9 FROM UPPADA, Godavery District
Buffalo and deer horns; hides and skins
- 10 FROM VIZAGAPATAM
Horns of buffalo, deer, &c.; hides

- 11 BROWN, CAPTAIN H., Rangoon
Marabou feathers
- 12 HOUGH, G., British Burmah
Snout of saw-fish
- 13 LLOYD, CAPTAIN M., Rangoon
Bull's head, stuffed (*bos sondaicus*), from
Tonghoo
- 14 THEOBALD, DR., Rangoon
Skulls and horns of wild ox, deer, and
antelopes, from Pegu
- 15 THEOBALD, W., JUNR., Rangoon
Skulls, horns, &c., of animals from India and
Burmah
- 16 FROM RANGOON
Birds' nests; two elephants' tusks
- 17 D'CUNHA, I., Penang
Reptiles in spirit
- 18 NAIRNE, L., Penang
Beche de mer, edible birds'-nests, and window
oyster-shells
- 19 SMITH, CLEMENT M., London
Asiatic lion and tiger fighting over the car-
case of a spotted deer. The specimens were
shot near Goona, Central India, by Clement
M. Smith, Esq., the exhibitor, and the work
executed by Mr. Edwin Ward, naturalist, of
24 Wigmore-street, London

Animal Oils.

- 20 BABOO KANNY LALL DEY, Calcutta
Neats-foot oil and other animal fats
- 21 FROM RANGOON
Fish oil and crab oil
- 22 FROM MYSORE
Peacock fat, and animal oils

Honey.

- 23 BABOO KANNY LALL DEY, Calcutta
Honey
- 24 MARTIN, CAPTAIN, Goona, Central India
Honey
- 25 FROM KHED, Poona
Honey
- 26 FROM MYSORE
Honey
- 27 FROM BURMAH, per Deputy Assistant
Bheel Agency
Three kinds of honey

CLASS XLIII.

Agricultural Products (not used as
Food) easily Preserved.

Cotton.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Nemawur, Tarana, and Mehidpore cottons

- 2 JENNINGS, E., Calcutta
Cotton
- 3 SMITH, REV. W. O'BRIEN, Calcutta
Cotton grown at Louisagunge near the salt-
water lakes, and at Amypore in the Sunder-
bunds
- 4 LOCAL COMMITTEE, Bancoorah
Cotton
- 5 FROM CHITTAGONG
Cotton
- 6 THE COMMISSIONER OF GYAH
Cotton
- 7 THE COLLECTOR OF HOOGHLY
Cotton
- 8 FROM MEERUT
Semul, or silk-cotton
- 9 FROM SARUN
Cotton
- 10 HIS HIGHNESS THE RAO OF CUTCH
Cotton
- 11 WALTON, W., Cotton Commissioner, Dharwar
Nineteen kinds of cotton
- 12 FROM BOMBAY PRESIDENCY
Samples of cotton
- 13 FROM JACOBABAD, Upper Sind
Cotton
- 14 NICHOLLS, E. J., Nagpore
Cotton
- 15 TAYLOR, CAPTAIN, Coorg
Five kinds of cotton from Egyptian seed
- 16 GARRET, J., Bangalore
Cotton from Brazil seed
- 17 FROM BANGALORE
Cotton
- 18 FROM BIMLIPATAM
Cotton
- 19 FROM BELLARY
Cotton
- 20 FROM CHITTULDROOG
Cotton thread
- 21 FROM CUDDAPAH
Cotton
- 22 FROM CUDDOOR
Foreign and indigenous cotton
- 23 FROM GODAVERY
Two specimens of cotton
- 24 FROM MADURA
Cotton
- 25 FROM MYSORE
Four kinds of cotton
- 26 FROM NELLORE
Cotton
- 27 FORBES, FORBES, & Co., London
Labracore cotton from Bombay, growth of
1865-6

- 28 OULMAN, M. M., FILS, Paris
Five samples of Bombay cotton
- 29 FROM INDIA MUSEUM, London
Samples of cotton from various parts of India

Wool.

- 30 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Mahidpore and Tarana wool
- 31 HIS HIGHNESS THE RAO OF CUTCH
Wool
- 32 FROM DADOO, Kurrachee
Camels' hair and goats' and sheeps' wool
- 33 FROM INDAPPOOR, Poona
Black and white wool
- 34 FROM NOWSHARA, Hyderabad
Camels' hair and goats' wool
- 35 FROM BANGALORE
White wool
- 36 FROM CUDOOR
Black and white wool

Silk Cocoons.

- 37 THE COLLECTOR OF MIDNAPORE
Cocoons of the tusser silkworm
- 38 THE COLLECTOR OF MIRZAPORE
Cocoons of tusser silkworm
- 39 REHLING, MR., Rungpore
Cocoons
- 40 FROM CUTTACK
Tusser cocoons

Fibres.

- 41 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Hemp and flax
- 42 THE JAGEERDAR OF ALLIPORE
Three specimens of fibres
- 43 BYZACH, M. M., MOHUN-BROTHERS, Dacca
Jute
- 44 SMITH, REV. W. O'BRIEN, Calcutta
Jute
- 45 STEWART, MACGILLOP, & Co., MESSRS., Soot-
buncolly
Four samples of jute
- 46 THE COLLECTOR OF BOGRA
Jute
- 47 THE COLLECTOR OF CHAMPARUN
Sunn fibre and rope
- 48 THE COLLECTOR OF DINAGEPORE
Jute
- 49 THE COMMISSIONER OF GYAH
Sunn hemp and jute

- 50 MARTIN, CAPTAIN, Goona
Hemp and five other fibres
- 51 THE COLLECTOR OF JESSORE
Situl pattee
- 52 THE COLLECTOR OF PUBNA
Jute and hemp
- 53 HIS HIGHNESS THE RAJAH OF NAGODE
Four specimens of fibres, cords, and barks
- 54 COLLECTOR OF RUNGPORE
Hemp and six other fibres
- 55 FROM SARUN
Jute
- 56 FROM AHMEDABAD
Ambaree fibre
- 57 FROM JACOBABAD, Upper Sind
Moong and grass fibre, hair rope
- 58 FROM JOONEER, Poona
Flax and two other fibres
- 59 FROM MAWUL, Poona
Four kinds of fibres
- 60 McIVOR, W., Ootacamund, Neilgherry
Hills
Fibre of Neilgherry nettle
- 61 PUCKLE, MAJOR, Mysore
Specimens of fibres
- 62 SHAW, F. G., Oosoor, Salem
Mudar and aloe fibre
- 63 NATIVE LUNATIC ASYLUM, Bangalore
Thirty-five kinds of fibre and ropes
- 64 FROM BANGALORE
Bark of *Lepurandra saccidora*
- 65 FROM BELGAUM
Three specimens of fibre
- 66 FROM CUDOOR
Cocoanut and date fibre
- 67 FROM BELLARY
Cotton ropes
- 68 FROM BIMLIPATAM
Jute
- 69 FROM SOUTH CANARA
Seven kinds of fibres and ropes
- 70 FROM TOOMKOOR
Five kinds of fibres and ropes
- 71 FROM PALHULLY
Aloe fibre
- 72 FROM TINNEVELLY
Palmyra rope and kora-grass for ropes
- 73 FROM VIZAGAPATAM
Jute fibre
- 74 FROM BURMAH
Straw bark and rope
- 75 HIS HIGHNESS THE TUMONGONG OF JOHORE
Glam bark and matting
- 76 HOGAN, J. E., Penang
Plantain fibre and Mungquang straw

77 CRANE, E. J., Singapore
Products of the cocoanut palm

78 LEVESON, E. J., Singapore
Collection of canes

Oils and Oil Seeds.

79 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Ten sorts of oil seeds

80 THE CHIEF OF CHUTTURPORE
Mowha and Cheeronjee seeds

81 BABOO KANNY LALL DEY, Calcutta
Forty-two samples of oils and oil seeds

82 BABOO ISSEN CHUNDER SEN, Calcutta
Nine samples of oil seeds

83 BABOO RANEE SHAMA SHOONDY, Moorshe-
dabad
Four samples of oil seeds

84 BABOO SREEDER SAHEY, Gyah
Four samples of oil seeds

85 THE BEGUM OF BHOPAL
Collection of twelve kinds of oil seeds

86 MARTIN, CAPTAIN, Goona
Nine kinds of oil seeds, and seven oils

87 POLLARD, MAJOR, Malwa
Linseed and seven other oil seeds

88 THOMPSON, DR., Hooghly
Tea seeds and oil

89 FROM CUTTACK
Oil seeds and oils

90 DEPUTY COMMISSIONER OF HILL TRACTS
Cotton oil

91 COLLECTOR OF JESSORE
Six kinds of oil seeds

92 FROM JOREHAUT TEA COMPANY, Assam
Tea seeds

93 MEERUT OIL-PRESSING COMPANY
Mustard, teel, and seed oils

94 THE COMMISSIONER OF PATNA
Mustard, linseed, and poppy seed

95 FROM SARUN
Five kinds of oil seeds

96 FROM AHMEDNUGUR
Eight kinds of oil seeds

97 FROM DHARWAR
Six varieties of oil seeds

98 FROM GHAZEEPORE
Poppy oil

99 FROM JACOBABAD, Upper Sind
Teel and other oil seeds

100 FROM NOWSHARA, Hydrabad
Hemp seed

101 FROM POONA
Ten sorts of oil seeds

102 FROM SEHWAN, Kuitachee
Linseed and other oil seeds

103 BUTLER, DARBY, & Co., Cochin
Cocoanut oil

104 BYSACH BROTHERS, MESSRS., Dacca
Two samples of oil seeds

105 PUCKLE, MAJOR, Mysore
Twelve kinds of oils

106 FROM CENTRAL JAIL, Bangalore
Ten kinds of oil seeds, and twenty-two oils

107 FROM BELGAUM
A collection of ten kinds of oil seeds

108 BIMLIPATAM LOCAL COMMITTEE
Castor, rape, niger, and teel seeds from
Vizagapatam

109 FROM CUDDAPAH
Ten samples of oils

110 FROM MADRAS
Oil seeds from Devaroydroog Hills

111 DEPUTY SUPERINTENDENT, Mysore
Oil seeds and oils from Shemoga, Cudoor,
and Coorg

112 NUDDEA DIVISIONAL COMMITTEE
Linseed and other oils

113 YEON SEU BEON, Penang
Specimens of oils

114 LOGAN, J. R., Penang
Chinok fruit and oil

115 FISHER, J., Singapore
Cocoanut oil

116 SCOTT, G., Penang
Oils and essential oils

117 WILSON, R., Penang
Specimens of oils

Wax.

118 HIS HIGHNESS THE RAJAH OF NAGODE
Samples of bees' wax

119 THE JAGIRDAR OF ALLIPORE, Bundelkund
Bees' wax

120 BABOO KANNY LALL DEY, Calcutta
Bees' wax

121 MARTIN, CAPTAIN, Goona, Central India
Bees' wax

122 NARASIMMA IYENGAR, Kadatur, Salem
District
Bees' wax, rough and manufactured

123 FROM BIMLIPATAM
Bees' wax

124 FROM GANJAM
Bees' wax

125 FROM MYSORE
Bees' wax

126 FROM VIZAGAPATAM
Bees' wax

- 127 FROM VIZIANAGARUM
Bees' wax
- 128 FROM BURMESE STATES, per Deputy Assistant Bheel Agency
Bees' wax
- 129 FROM AVA AND SHVAY GHEEN
Bees' wax
- 130 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.
Bees' wax

Gums and Resins.

- 131 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Five kinds of gums and resins
- 132 HIS HIGHNESS THE RAJAH OF NAGODE
Six gums and resins
- 133 THE CHIEF OF CHUTTURPORE
Four kinds of gums
- 134 BABOO KANNY LALL DEY, Calcutta
Babool and other gums
- 135 MARTIN, CAPTAIN, Goona, Central India
Gums and resins
- 136 FROM CHITTAGONG
Gurjun or wood oil
- 137 FROM CUTTACK
Sal resin
- 138 COMMISSIONER OF GYAH
Dhoona resin and Babool gum
- 139 THE DEPUTY COMMISSIONER OF THE HILL TRACTS
Wood oil
- 140 FROM MEERUT
Resin
- 141 FROM AHMEDNUGGUR
Babool gum
- 142 FROM BANGALORE
Margosa and Durdega gums
- 143 ASSISTANT CONSERVATOR OF FORESTS, Coorg
Piney resin and wood oil
- 144 FROM COCHIN
Black dammar and Muttipal
- 145 FROM CUDDOOR, Mysore
Black dammar and gamboge oil
- 146 FROM MADRAS
Wood oil
- 147 FROM MYSORE
Gums and resins
- 148 FROM SHEMOGA, Mysore
Twenty specimens of gums and resins
- 149 FROM TOOMKOOOR, Mysore
Gums
- 150 THEOBALD, W., JUNR., Burmah
"Pwai-nyet" and the insects that form it, in spirit; and other resins
- 151 FROM BURMAH
Dammars, varnish, and wood oil

- 152 FROM PEGU
Resin of Hopea odorata
- 153 HIS HIGHNESS THE TUMONGONG OF JOHORE
Specimens of dammers
- 154 LEVESON, E. J., Singapore
Mata kooching and benzoin
- 155 SCOTT, G., Penang
Dammer oil
- 156 NAIRNE, L., Penang
Benzoin and dragon's-blood

Lacs.

- 157 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Shell lac, peepul lac (*Ficus religiosa*), bore lac (*Zizyphus jujuba*)
- 158 HIS HIGHNESS THE RAJAH OF NAGODE
Lac
- 159 HIS HIGHNESS THE JAGIRDAR OF ALLIPORE, Bundelkund
Samples of lac
- 160 THE CHIEF OF CHUTTERPORE, Bundelkund
Peepul lac
- 161 BABOO DWARKANAUTH MOORKERJEE
Lacs and glue
- 162 BABOO HURRY BONGOO NEUJEE, Calcutta
Shell lac
- 163 JARDINE, SKINNER, & Co., MESSRS., Mirzapore
Shell lac and lac dyes
- 164 MACGILLOP, STEWART, & Co., Mirzapore
Shell lac
- 165 BRODRICH, H. C., Auggur
Lac
- 166 FROM BANCOORAH
Lac dye
- 167 FROM BEERBHOOM
Shell lac, button lac, and lac dye
- 168 FROM CUTTACK, per Commissioner
Lac
- 169 FROM AHMEDNUGGUR
Chupsa lac
- 170 FROM POONA
Lac
- 171 FROM BANGALORE
Lac of *Vatica laccifera*
- 172 FROM HASSAN, Mysore
Lac
- 173 FROM MYSORE
Lac of *Ficus indica*
- 174 FROM NUNDIDROOG
Lac
- 175 FROM TOOMKOOOR
Lac
- 176 FROM BURMAH
Stick lac

Tobacco, Opium, &c.

- 177 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Opium from Malwa, Nimar, and Depalpore
- 178 HER HIGHNESS THE BEGUM OF BHOPAL
Opium and tobacco
- 179 LOCAL COMMITTEE, Bancoorah
Tobacco
- 180 FROM ARRACAN
Tobacco
- 181 FROM CHITTAGONG
Tobacco and Jornea tobacco
- 182 OFFICIATING COMMISSIONER, Cooch Behar
Tobacco
- 183 THE COLLECTOR OF HOOGHLY
Tobacco
- 184 FROM DEHRA DOON
Samples of tobacco
- 185 FROM PROME
Tobacco
- 186 BABOO RUMONEE MOHUNROY CHOWDHREE,
Rungpore
Tobacco
- 187 SMITH, REV. W. O'BRIEN, Calcutta
Cigars and snuff from Louisagunge, in the
Salt Lake district
- 188 THE JHALLAWAR CHIEF
Opium
- 189 SHAW, F. G., Oosoor
Country tobacco
- 190 THE COLLECTOR OF AHMEDNUGGUR
Snuff, tobacco, and gunjah
- 191 FROM DHARWAR
Betelnuts
- 192 FROM GODAVERY
Tobacco and cigars
- 193 FROM HYDRABAD, Sind
Tobacco
- 194 FROM JACOBABAD, Sind
Bhang
- 195 FROM NOWSHARA, Kurtachee
Tobacco
- 196 FROM SOUTH ARCOT
Tobacco
- 197 THE SECRETARY NUDDEA COMMITTEE
Betelnuts and tobacco
- 198 FROM BELLARY
Tobacco of two kinds
- 199 DEPUTY SUPERINTENDENT, Mysore
Five kinds of areca-nuts from Shemoga, and
four kinds from Cudoor
- 200 FROM TANJORE
Samples of tobacco
- 201 FROM VIZAGAPATAM
Tobacco

202 FROM VIZIANAGARUM

Tobacco and cigars

203 IRELAND, W. D., Rangoon

Tobacco grown in the Myan-oung district

204 FROM PROME

Seven samples of tobacco

Dye-Stuffs, &c.

205 HIS HIGHNESS THE MAHARAJAH HOLKAR

of Indore
Safflower, turmeric, and Morinda citrifolia

206 THE CHIEF OF CHUTTERPORE

Dye material

207 BABOO KANNY LALL DEY, Calcutta

Samples of dye-stuffs

208 BABOO DWARKANAUTH MOORKERJEE,

Hooghly
Samples of dye-stuffs

209 BYSACK, MESSRS. M. M., Brothers, Dacca

Safflower

210 TAMEEZ KHAN, Calcutta

Onosma echioides

211 MARTIN, CAPTAIN, Goona, Central India

Myrabolan

212 THOMPSON, DR., Hooghly

Green and yellow dyes, and illustrations of
the same

213 HER HIGHNESS THE BEGUM OF BHOPAL

Safflower

214 FROM DEHRA DHOON

Turmeric

215 FROM GYAH

Safflower

216 FROM MORADABAD

Safflower

217 FROM PUBNA

Turmeric

218 FROM SARUN

Safflower

219 FROM AHMEDNUGGUR, Bombay

Safflower and other dyes

220 FROM BELGAUM

Twelve dyes and tans

221 FROM HYDRABAD, Sind

Safflower

222 FROM NOWSHARA, Sind

Safflower

223 FROM POONA

Dye and tan stuffs from Mawal, Jooneer,
Indapoor, Haveilly, Khed, and Barsee

224 FROM SURAT

Safflower

225 SUPERINTENDENT LAL BAUGH, Mysore

Divi-divi

- 226 FROM BANGALORE, Mysore
Sappan-wood and Ventilago maderaspatana
- 227 FROM BIMPATAM
Myrabolans and turmeric
- 228 FROM COORG
Rottlera tinctoria
- 229 FROM SHEMAH
Rottlera tinctoria, and Ventilago maderaspatana
- 230 FROM TOOMKOOOR
Cassia auriculata and Morinda citrifolia
- 231 MADRAS CENTRAL COMMITTEE
Fourteen dye-stuffs and tanning materials
- 232 FROM MYSORE
Five dyes
- 233 SUB-ASSISTANT CONSERVATOR OF FORESTS,
Nundidroog, Mysore
Muddi and patenga dye
- 234 FROM BURMAH
Mangrove bark
- 235 FROM PEGU
Safflower
- 236 D'ALMEIDA, J., Singapore
Gambir
- 237 LEVESON, E. J., Singapore
Gambir in cubes
- 238 NEWBRONNER, T., Penang
Gambir

Indigo.

- 239 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Indigo
- 240 GIBBORNE AND Co., MESSRS., Calcutta
Indigo
- 241 JARDINE, SKINNER, AND Co.
Indigo of various marks
- 242 SKINNER, A., Bilaspore
Indigo
- 243 FROM PERTAUBPORE
Indigo
- 244 FROM BENGAL
Borneo indigo
- 245 GREEN, LIEUT.-COLONEL, Jacobabad,
Upper Sind
Indigo
- 246 FROM AHMEDNUGGUR, Bombay
Indigo
- 247 FROM KOTREE, Kurrachee
Indigo
- 248 FROM NOWSHARA, Hydrabad
Indigo
- 249 CHETTY, ATCHENA, South Arcot
Pondicherry indigo

- 250 CHETTY, ATCHENA, Madras
Kurpah indigo
- 251 ARBUTHNOT & Co., MESSRS., Bimlipatam
Indigo
- 252 ARBUTHNOT & Co., MESSRS., Cuddapah
Kurpah indigo
- 253 ARBUTHNOT & Co., MESSRS., Nellore
Indigo
- 254 HILL & Co., MESSRS., Chumparun.
Indigo
- 255 PARRY & Co., MESSRS., Vellore
Vellore indigo
- 256 SAVI. I. R., Nohatti, Jessore
Indigo
- 257 SIMPSON, A. M., Nellore
Indigo
- 258 WALKER & Co., MESSRS., Madras
Kurpah indigo
- 259 MADRAS CENTRAL COMMITTEE
Pala and Nerium indigo
- 260 FROM MYSORE
Indigo of the Hali murta
- 261 FROM NUDDEA
Indigo
- 262 FROM SARUN
Indigo
- 263 FROM VIZAGAPATAM
Indigo
- 264 FROM BURMAH
Indigo

Miscellaneous.

- 265 THE JAGEERDAR OF ALIPORE
Leaves of the teller-tree, used for polishing
ivory, wood, &c.
- 266 KOOMA, HARENDIA KRISTNA, BAHADOOR
Nuts (of Entada pursaetha) used for plaiting
sleeves
- 267 BRODRICH, H. C., Auggur
Red seeds for ornaments (*Abrus precatorius*)
- 268 MARTIN, CAPTAIN, Goonah
Koli-kanda, a bulb employed for glazing

CLASS XLIV.

Chemical and Pharmaceutical Products.

Materia Medica.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Six specimens of native drugs
- 2 HIS HIGHNESS RAMSING BAHADOOR
Fifteen specimens of native medicine

- 3 BABOO KANNY LALL DEX, Calcutta
Twenty specimens of mineral substances employed in medicine
208 indigenous vegetable materia medica, sold in the bazaars
- 4 BRODRICH, H. C., Auggur
Collection of bazaar medicines
- 5 MARTIN, CAPTAIN, Goona
Four specimens of native drugs
- 6 FROM MARWAR
A collection of 234 samples of native medicines sold in the bazaars
- 7 BIRDWOOD, DR. G. M., Bombay
An extensive collection of the materia medica of the Presidency
- 8 FROM AHMEDNUGGUR
Butchnag and koolungan
- 9 FROM KHED, Poona
Five specimens of drugs
- 10 FROM MAWUL, Poona
Twelve specimens of drugs
- 11 FROM NOWSHARA, Hyderabad
Hudolph medicine
- 12 FROM PABUL, Poona
Eleven specimens of drugs
- 13 McIVOR, W., Ootacamund, Neilgherry Hills
Specimens of mossed and unmossed chinchona barks
- 14 FROM CUDDOOR, Mysore
Peacock, snake, and crocodile oils
- 15 FROM PETTAH HOSPITAL, Bangalore
148 specimens of vegetable simple drugs
- 16 HIS HIGHNESS THE TUMONGONG OF JOHORE
Gahroo wood
- 17 WARING, E. J., M.D., London
250 specimens of vegetable drugs illustrative of the new India Pharmacopœia

Chemicals.

- 18 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Bangada khur and black loona salt
- 19 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Crystallised salt, alum
- 20 BABOO ISSEN CHUNDER SEN, Calcutta
Twelve samples of saltpetre
- 21 FROM NELLORE
Salt and saltpetre
- 22 FROM SARUN
Saltpetre
- 23 HIS HIGHNESS THE RAO OF CUTCH
Saltpetre, alum, and salt
- 24 FROM AHMEDNUGGUR, Bombay
Saltpetre

- 25 FROM JACOBABAD, Sind
Salt and saltpetre
- 26 FROM TATTA, Kurrachee, Sind
Salt and saltpetre
- 27 FROM BANGALORE
Saltpetre
- 28 FROM BELLARY
Saltpetre and earth-salt
- 29 FROM GODAVERY
Saltpetre
- 30 FROM HASSAN
Potash-earth
- 31 FROM MADRAS
Chemicals used as mordants
- 32 DEPUTY SUPERINTENDENT, Mysore
Earth-salt of two kinds, and potash-earth
- 33 FROM TOOMKOOR, Mysore
Saline earth

Soap, &c.

- 34 THE CHIEF OF CHUTTERPORE
Country soap
- 35 HIS HIGHNESS THE NAWAB OF TONK
Country soap
- 36 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Jeypore soap
- 37 BABOO KANNY LALL DEX, Calcutta
Country soap
- 38 FROM KURRACHEE
Country soap
- 39 FROM VIZAGAPATAM
Candles

CLASS XLV.

Specimens of the Chemical Processes for Bleaching, Dyeing, Printing, and Dressing.

- 1 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Collection of chintzes and dyed cloths of Jeypore manufacture
- 2 NUDDEA DISTRICT
Cloth, dyed with the names of Hindu deities
- 3 HIS HIGHNESS THE RAO OF CUTCH
Cotton cloth, dyed with pomegranate rind
- 4 FROM BELGAUM
Cotton yarn of various colours
- 5 YELLURU SETTI, Madura
Dyed cloths, five samples
- 6 NAUNU SETTI
Rose-coloured cloth, spotted

- 7 FROM OSSOOR, Salem District
Silk thread
- 8 FROM SALEM DISTRICT
Silk thread, dyed of various colours

CLASS XLVI.**Leather and Skins.**

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Buffalo and deer skins
- 2 MEER SHAMUT ALI KHAN, BAHADOOR, Superintendent of Rutlam
Bullock hide (chursa)
- 3 THE RAJAH OF NAGODE, per the Political Assistant
Skin of the Bundlekund tiger; skin of the Bundlekund 'sambar,' or red deer, tanned; two goat-skins, plain and dyed
- 4 FROM GOONA, Central India
Skins of lion, lioness, and tiger
- 5 FROM KURRACHEE
Sheep-skins, tanned and coloured

GROUP VI.**Apparatus and Processes used in the Common Arts.****CLASS XLVII.****Apparatus and Processes of the Arts of Mining and Metallurgy.**

- 1 FROM POONA DISTRICT
Various implements of iron

CLASS XLVIII.**Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests.**

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Models of native carts; the 'dunnin' cart, and the cultivator's cart; models of agricultural carts, ploughs, &c.
- 2 THE CHIEF OF BAWNEE, per Assistant Political Agent, Bundlekund
Models of plough, yoke, &c.
- 3 THE CHIEF OF CHUTTERPORE, per Assistant Political Agent, Bundlekund
Six models of agricultural machines
- 4 MEER SHAMUT ALI KHAN, BAHADOOR, Superintendent of Rutlam
One 'kelloo;' one ploughing instrument, 'buker;' one sowing instrument, 'narjee;' one weeding instrument, 'culpa'

- 5 HUTCHINSON, DR., Bengal Army
Implements used for agricultural and irrigation purposes

- 6 COLLECTOR OF JESSORE
Implements used in agriculture

- 7 FROM MEERUT
Model of Persian wheel

- 8 FROM NUDDEA
Agricultural implements

- 9 FROM AHMEDABAD
Implements of agriculture

- 10 FROM AHMEDNUGGUR
Implements of agriculture and model of a well

- 11 FROM BELGAUM
Agricultural implements

- 12 FROM HOOBLEE, Dharwar
Agricultural implements and models

- 13 FROM JACOBABAD, Upper Sind
Agricultural implements

- 14 FROM CASHMERE
Roller cotton

- 15 FROM KURRACHEE
Shovel

- 16 FROM POONA DISTRICT
Agricultural implements and models

- 17 FROM SEHWAN, Kurrachee
Model of Persian water-wheel, and plough

- 18 FROM SURAT
Agricultural implements

- 19 FROM BANGALORE,
Numerous field implements, as plough, rake, spade, hoe, &c.

- 20 LLOYD, CAPTAIN, Rangoon
Jungle chopper

- 21 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Models of agricultural implements

- 22 FROM PROME
Gardening and forest knives, &c.

- 23 NAIRNE, L., Penang
Manure

CLASS XLIX.**Apparatus used in Shooting, Fishing Tackle, and Implements used in Gathering Fruits obtained without Cultivation.**

- 1 FROM NUDDEA DIVISION
Net work for fishing
- 2 COLLECTOR OF RUNGPORE
Three nets, different meshes
- 3 FROM KURRACHEE
Fishing-net

- 4 FROM POONA
Fishing-nets and other apparatus
- 5 FROM BANGALORE, Mysore
Fish-nets
- 6 FROM CUDOOOR
Fish-nets
- 7 FROM HASSAN
Toddy-drawer's accoutrements

CLASS L.

Apparatus and Processes used in Agricultural Works, and in Works for the Preparation of Food.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Models of oil and sugar mills, and distilling apparatus
- 2 MEER SHAMUT ALI KHAN, BAHADOOR, Superintendent of Rutlam
A sugar-mill, 'cherkee'; an oil-mill
- 3 CHIEF OF CHUTTERPORE, per the Assistant Political Agent, Bundlekund
Models of sugar-mill, and machines for grinding grain, &c.
- 4 HUTCHINSON, DR., Bengal Army
Domestic implements
- 5 FROM BELGAUM
Oil and sugarcane presses
- 6 FROM HOOBLEE, Dharwar
Brass plates
- 7 FROM JACOBABAD, Upper Sind
Grain measure, scales, corn mill, &c.
- 8 FROM KURRACHEE
A set of cooking utensils
- 9 FROM KUSMORE, Jacobabad
Ghee and oil measures
- 10 FROM NASSICK, Ahmednuggur
A large series of utensils in domestic use
- 11 FROM POONA
Brass utensils, &c.
- 12 FROM SAWUNTWAREE
'Goodgoodee' (apparatus for smoking)
- 13 FROM SINGAPORE
Domestic utensils

CLASS LI.

Apparatus used in Chemistry, Pharmacy, and in Tan-yards.

- 1 FROM KURRACHEE
Tanner's tools
- 2 FROM POONA
Leather-dresser's implements

CLASS LIII.

Machines and Apparatus in general.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Five weights, from $\frac{1}{3}$ lb. to 2 lbs.; five measures of capacity
- 2 THE CHIEF OF MYHERE, per Political Assistant, Nagode
Seven chittack measures

CLASS LV.

Apparatus and Processes used in Spinning and Ropemaking.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Cotton-cleaning machine, manual power; hand-spinning apparatus
- 2 THE CHIEF OF CHUTTERPORE, per Assistant Political Agent, Bundlekund
Model of 'churka' (used in spinning); model of 'churkhee' (cotton gin); model of 'peen-jun'
- 3 THE JAGEERDAR OF ALLIPORE, per the Assistant Political Agent, Bundlekund
Model of 'churkhee'; slow-match rope
- 4 HUTCHINSON, DR., Bengal Army
Model of 'churka,' or cotton-cleaning machine
- 5 THE COLLECTOR OF RUNGPORE
Specimens of twine; line of which nets are made
- 6 FROM GOONA, Central India
Four kinds of rope and string
- 7 FROM AHMEDNUGGUR
Spinning-wheel
- 8 FROM BELGAUM
Cotton-spinning machine; silk reels
- 9 FROM HOOBLEE, Dharwar
Iron foot-roller for cotton-cleaning
- 10 FROM JACOBABAD, Upper Sind
Hair ropes, used for camel gear; spinning-wheel, moong and grass rope and twine
- 11 FROM TATTA, Kurrachee
Spinning-wheel
- 12 ROUPELL, N. A., Assistant Collector, South Canara
Samples of ropes prepared by the Laccadive Islanders
- 13 FROM BELLARY
Cotton rope
- 14 FROM SOUTH CANARA
Fourteen kinds of rope and cordage
- 15 THE COLLECTOR OF CHAMPARUN
Sunn rope

16 FROM SALEM

Aloe rope

17 FROM TINNEVELLY

Cotton ropes and palmyra fibre

18 FROM TONSE, in the Udipi Taluk, South Canara

Coir yarn

19 FROM UPPADA, Godavery District

Hemp and flax ropes

CLASS LVI.

Apparatus and Processes used in Weaving.

1 PUNNAH LALL, Goonah, Central India
Implements used in the manufacture of Chunderree cloths**2 POLITICAL ASSISTANT, Nagode**
Indian hand-spinning wheel**3 FROM AHMEDNUGGUR**
Weaving loom**4 FROM BELGAUM**
Loom**5 FROM TATTA, Kurrachee**
Figuring machines**6 FROM BANGALORE, Mysore**
Model of a loom**CLASS LVII.**

Apparatus and Processes for Sewing, and for Making up Clothing.

1 FROM KURRACHEE
Shoemaker's tools**CLASS LVIII.**

Apparatus and Processes used in the Manufacture of Furniture and Objects for Dwellings.

1 FROM KURRACHEE
Ivory turner's tools**2 FROM MADRAS**
Sandalwood carver's tools**CLASS LIX.**

Apparatus and Processes used in Paper-making, Dyeing, and Printing.

1 THE JHALLAWAR CHIEF
Implements for binding**2 HUNTER, DR., Madras**
Canarese and Tamil printing types**CLASS LX.**

Machines, Instruments, and Processes used in various Works.

1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Minting apparatus, 'balapai'**2 MEER SHAMUT ALI KHAN, BAHADOOR, Superintendent of Rutlam**
Model of mint apparatus; two iron presses**3 FROM GOONA, Central India**
Minting apparatus, complete, of his Highness the Maharajah Scindia, G.C.S.I.**CLASS LXI.**

Carriages and Wheelwright's Work.

1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Two models of native carriages, the 'rutha' and 'tanga'**2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore**
Models of carriages: the 'bahile,' or two-wheeled 'garree;' and the 'inderjhan,' or 'ruth'**3 MEER SHAMUT ALI KHAN, BAHADOOR, Superintendent of Rutlam**
Eight models of native carriages**4 BHURTPORE DURBAR**
Models in silver of a 'palkee' with bearers, and of a 'ruth' used by ladies of rank**5 POLITICAL ASSISTANT, Nagode**
Model of 'ekkha,' or one-horse carriage**6 FROM NUDDEA**
Model of a 'palkee,' or carriage**7 FROM AHMEDNUGGUR**
Model of country tunga**8 FROM POONA**
Models of palanquin, &c.**9 FROM SHIKARPOOR**
Model of palkee**10 FROM BANGALORE, Mysore**
Model of Hindoo car in sandalwood**11 HUTCHINSON, DR., Bengal Army**
Nine models of conveyances in use in N.W. Provinces**CLASS LXII.**

Harness and Saddlery.

1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
'Mahra' (hand stall); pair of 'gends;' 'chayama;' 'khogis;' 'patharia' (saddling)

- 2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Saddlery and horse trappings of various kinds
- 3 HIS HIGHNESS THE MAHARAJAH OF JODHPORE
Saddle and trappings complete, and kincob saddle-cloth
- 4 THE THAKOOR OF KOOCHARRUM, Marwar
Camel saddle, with bridle and trappings complete
- 5 THE CHIEF OF SUMPTER, per Assistant Political Agent, Bundelkund
Four bits for horses
- 6 THE JHALLAWAR CHIEF
A country-made saddle, reins, &c., worked with silk
- 7 MARWAR DURBAR
Specimens of saddlery
- 8 MEER SHAMUT ALI KHAN BAHADOOR, Superintendent of Rutlam
Pair of brass stirrups, 'rickabs'
- 9 NEMMIS, CAPTAIN, Malwa, Central India
Horse trappings
- 10 COLLECTOR OF CAWNPORE
Set double harness; four saddles
- 11 POLITICAL AGENT, Marwar
Rajpoot chief's horse equipage
- 12 HIS HIGHNESS THE MAHARAJAH RAJENDRA PERTAB, of Hutwa
An embroidered saddle, bridle studded with pearls, saddle-cloth, &c., complete, from Sarun
- 13 ELAHEE BUKSH, Lahore
A 'charjaina' or saddle-cloth, richly embroidered in gold on velvet
- 14 BIRCH, MAJOR, Bunnoo, per Deputy Commissioner
Embroidered camel saddle and trappings
- 15 FROM AHMEDABAD
Piece of kincob for horse saddle, bordered with gold, silver, and silk work
- 16 FROM BHOWNUGGUR, Kattywar
Horse saddle and trappings
- 17 FROM JACOBABAD, Upper Sind
Horse and camel saddles, and harness
- 18 FROM HYDRABAD, Sind
Camel saddle and trappings
- 19 FROM KHYRPOOR
Bridle, with silver work
- 20 FROM KOHISTAN, Kurrachee
Camel saddle-pads
- 21 FROM TATTA, Kurrachee
Camel saddle, &c.
- 22 FROM RANGOON
A set of harness

CLASS LXV.

Civil Engineering, Public Works, and Architecture.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Four locks and padlocks
- 2 THE CHIEF OF PUNWAH, per the Assistant Political Agent, Bundelkund
Two puzzle locks
- 3 MEER SHAMUT ALI KHAN BAHADOOR, Superintendent of Rutlam
Iron locks, of sorts
- 4 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Four native locks
- 5 THE COLLECTOR OF MIRZAPORE
Stone screen
- 6 THAKOOR RUNBEER SING, Chief of Myhere
Padlock
- 7 FROM BOMBAY
A collection of building stones
- 8 FROM HALLA, Hyderabad, Sind
Tiles, plain and coloured
- 9 FROM KURRACHEE
Carpenters' tools
- 10 FROM TATTA, Kurrachee
Encaustic tiles
- 11 FROM TOOMKOOR, Mysore
Three kinds of locks
- 12 HOPE, T. C., Esq.
Photographs of the architecture of Ahmedabad, Dharwar, and Beejapoor
- 13 FERGUSON, JAMES, Esq., London
Series of photographs of Indian architecture

CLASS LXVI.

Navigation and Life Boats.

- 1 FROM NUDDEA DIVISION
Ten models of boats and barges
- 2 FROM KURRACHEE
Models of boats
- 3 FROM SHIKARPOOR
Skin raft for crossing rivers
- 4 BROWN, CAPTAIN H., Deputy Commissioner, Rangoon
Model of boat
- 5 GALBRAITH, J., Rangoon
Model of Burmese war-boat
- 6 ASSISTANT DEPUTY BHEEL AGENT in the Burmese State
Two models of boats
- 7 HIS HIGHNESS THE TUMONGONG OF JOHORE, K.C.S.I.
Sampan, Punjab, and Kolek

GROUP VII.

Food, Fresh or Preserved, in various States of Preparation.

CLASS LXVII.

Cereals and other Eatable Farinaceous Products, and the Products derived from them.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Sorghum vulgare and rices
- 2 HIS HIGHNESS THE MAHARAJAH OF HUTWA
Rice
- 3 HIS HIGHNESS THE JAGEERDAR OF ALIPORE
Koda rice
- 4 HIS HIGHNESS THE CHIEF OF TEHREE
Millets
- 5 HIS HIGHNESS THE CHIEF OF JHALLAWAR
Millets
- 6 HER HIGHNESS THE BEGUM OF BHOPAL
Collection of rices
- 7 HIS HIGHNESS THE RAJAH OF HUTWA
A collection of rices in the ear
- 8 THE CHIEF OF CHUTTERPORE
Four samples of grain
- 9 BABOO SREEDER SAHEY, Gyah
Samples of grains
- 10 BABOO H. M. MOOKERJEE, Hooghly
Ten samples of grains
- 11 BABOO ISSEN CHUNDER SEN, Calcutta
Table rice
- 12 KUMAI HERENDIA KRISTNA BAHADOOR
Collection of rice
- 13 DANIELL, C. A., Dehra Doon
Rice
- 14 IMPEY, E. C., Rajpootana
Millets
- 15 MARTIN, CAPTAIN, Goonah
Eighteen specimens of grains
- 16 NICHOLLS, E. J.
Collection of sorghum in the ear
- 17 POLLARD, MAJOR, Malwa
Samples of rice and grains
- 18 FROM DHAR
Samples of rice
- 19 FROM CHITTAGONG
Hill rice
- 20 FROM CUTTACK
Samples of grains
- 1 FROM DINAGPORE
Specimens of rice
- 22 FROM GYAH
Basmuttee rice

- 23 FROM MALDA
Specimens of rice
- 24 FROM PATNA
Table rices
- 25 FROM SEROHIE
Specimens of grains
- 26 FROM AHMEDAHAD
Eight samples of grain
- 27 FROM TONK
Paspalum frumentaceum
- 28 FROM AHMEDNUGGUR
Ten samples of grain
- 29 FROM BELGAUM
Eight samples of grains
- 30 FROM DHARWAR
Seven samples of grains
- 31 FROM JACOBABAD, Sird
Four samples of grain
- 32 FROM KURRACHEE, Sind
Four samples of grain
- 33 FROM POONA
Eighteen samples of grain
- 34 FROM SURAT
Three samples of grain
- 35 MADRAS CENTRAL COMMITTEE
Samples of grains
- 36 FROM MYSORE
Ten samples of rice from Colar; seven samples of rice from Cudoor; twenty-three samples of grain
- 37 BROWN & Co., MESSRS., Penang
Twenty-five samples of paddy and rice
- 38 LOGAN, JAMES R., Penang
Samples of paddy
- 39 FROM THE INDIA MUSEUM, London
Collection of grains from various localities in India

Farinas and Feculas.

- 40 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Salep misree and mooshee
- 41 BABOO KANNY LALL DEY, Calcutta
Arrowroot
- 42 M. MOHUN, BYSACK, & Co., MESSRS., Dacca
Arrowroot tubes
- 43 ROBINSON, CAPTAIN, Dehra Doon
Arrowroot
- 44 POLLARD, MAJOR, Malwa
Trapa bispinosa
- 45 FROM BEERBHOM, Bengal
Arrowroot
- 46 FROM SARUN
Arrowroot
- 47 HAYES, J. W., Palhully
Arrowroot

- 48 MAYLOR, W., North Malabar
Sago and arrowroot
- 49 DEPUTY SUPERINTENDENT, Mysore
Sago of *Caryota urens*, and tapioca
- 50 TAY HEU, Malacca
Pearl tapioca
- 51 YEOU SEU BEON, Penang
Wheat-flour and soojie
- 52 COOKE, Miss, Singapore
Arrowroot
- 53 MCGUIRE, J.M., Penang
Arrowroot flour
- 54 MACPHERSON, HON. COLONEL, Singapore
Pearl tapioca of two kinds
- 55 WILSON, R., Penang
Arrowroot, tapioca, and tapioca-flour

CLASS LXXI.

Vegetables and Fruits.

Pulse.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Cajan peas
- 2 THE CHIEF OF JHALLAWAR
Five samples of pulse
- 3 HER HIGHNESS THE BEGUM OF BHOPAL
Seven samples of pulse
- 4 BABOO SREEDER SAHEY, Gyah
Specimens of pulse
- 5 BABOO ISSEN CHUNDER SEN, Calcutta
Collection of pulse
- 6 IMPEY, E. C., Rajpootana
Lentils
- 7 FROM JESSORE, Bengal
Six samples of pulse
- 8 FROM SEROHIE
Four samples of pulse
- 9 MARTIN, CAPTAIN, Goonah
Twelve samples of pulse
- 10 POLLARD, MAJOR, Malwa
Seven samples of pulse
- 11 FROM AHMEDABAD
Four samples of pulse and eighteen of vegetable seeds
- 12 FROM AHMEDNUGGUR
Nine samples of pulse
- 13 FROM BELGAUM
Five samples of pulse
- 14 FROM DHARWAR
Two samples of pulse
- 15 FROM JACOBABAD, Sind
Samples of pulse
- 16 MADRAS CENTRAL COMMITTEE
Ten samples of pulse

- 17 FROM MYSORE
Twenty-two samples of pulse and fourteen of vegetable seeds
- 18 FROM KURRACHEE, Sind
Samples of pulse
- 19 FROM POONA
Eleven samples of pulse
- 20 FROM SURAT
Five samples of pulse
- 21 FROM THE INDIA MUSEUM, London
A collection of pulse from various localities in India

Dried Fruits.

- 22 HER HIGHNESS THE BEGUM OF BHOPAL
Cheronjee seeds
- 23 THE CHIEF OF CHUTTURPORE
Bassia flowers and achar fruit
- 24 BABOO KANNY LALL DEY, Calcutta
Raisins
- 25 MARTIN, CAPTAIN, Goonah
Bassia flowers

Fruits in Spirits.

- 26 YEOU SEU BEON, Penang
Nutmegs, mangoosteens, oranges, and limes
- 27 BROWN AND CO., MESSRS., Penang
Betelnuts and nutmegs

CLASS LXXII.

Condiments and Stimulants.

Spices.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR,
G.C.S.I., of Indore
Seven samples of spices
- 2 BABOO KANNY LALL DEY, Calcutta
Pepper, cinnamon, and other spices
- 3 DANIELL, C. A., Dehra Doon
Capsicums and turmeric
- 4 FROM GYAH, Bengal
Mustard
- 5 FROM PUBNA
Turmeric
- 6 FROM RUNGPORE
Ginger
- 7 FROM AHMEDNUGGUR
Sowa, mustard, &c.
- 8 FROM DHARWAR, Bombay
Cardamoms
- 9 FROM HYDRABAD, Sind
Carraways
- 10 FROM KURRACHEE, Sind
Coriander
- 11 FROM POONA
Turmeric and other spices

- 12 FROM SURAT
Ginger and turmeric
- 13 MAYLOR, W., Malabar
Pepper and cinnamon
- 14 TAYLOR, CAPTAIN, Coorg
Cardamoms
- 15 SUPERINTENDENT LAL BAUGH, Mysore
Vanilla
- 16 FROM BIMLIPATAM, Madras
Turmeric
- 17 FROM COCHIN
Ginger
- 18 FROM COORG, Mysore
Pepper and cardamoms
- 19 FROM CUDDOOR
Pepper and cardamoms
- 20 FROM MYSORE
Collection of spices
- 21 TAN CHING SEN, Singapore
Cinnamon
- 22 YEOW SEU BEON, Penang
Cloves
- 23 BROWNE & Co., MESSRS., Penang
Nutmegs
- 24 D'ALMEIDA, J., Singapore
Black and white pepper
- 25 LEVESON, E. J., Singapore
Black and white pepper
- 26 MAN, COLONEL H., Penang
Cloves
- 27 NAIRNE, L., Penang
Pepper and cloves
- 28 NEUBRONNER, T., Malacca
Nutmegs and mace

Betel Nuts, &c.

- 29 FROM DHARWAR, Bombay
Areca nuts
- 30 FROM CUDDOOR
Four kinds of betelnuts
- 31 FROM SHEMOGA, Mysore
Five kinds of betelnuts
- 32 YEOW SEU BEON, Penang
Areca nuts
- 33 LEVESON, E. J., Singapore
Gambir, in sticks, for mastication
- 34 NAIRNE, L., Penang
Areca nuts

Teas.

- 35 MAY & COMPANY, GEORGE, Meleng Estate,
Upper Assam
Four samples of teas manufactured by J. F.
W. Smart
- 36 NOAKCHAREE TEA COMPANY (Limited),
Upper Assam
Four samples of teas manufactured by Robert
Webb

- 37 JOREHAUT TEA COMPANY (Limited), Assam
Twenty-four samples of teas, and two of tea
seeds, contained in boxes made of different
kinds of woods from the same district
- 38 BRITISH EAST INDIA TEA COMPANY, Cachar
Flowery pekoe, grown by P. J. Hay, and five
sample of teas grown by G. R. Nicholls
- 39 EAST INDIA TEA COMPANY (Limited), Cachar
Three samples of teas
- 40 SOORISPORE TEA COMPANY, Cachar
Two samples of teas
- 41 WOODROW, H., Doyapore, North Cachar
Mixed Pekoe and Souchong tea
- 42 ANNFIELD TEA PLANTATION, Dehra Doon
Orange Pekoe tea
- 43 LALLA DHOOM SING, Khazanchee, Dehra
Doon
Fine Souchong tea
- 44 ROBINSON, CAPTAIN, Lukhunwala, Dehra
Doon
Five samples of teas
- 45 KANHAYA LALL AND NARAIN DASS, Nirun-
jupore, Dehra Doon
Black tea
- 46 MOHUNT PREETUM DOSS, Dhurtawala,
Dehra Doon
Fine Souchong tea
- 47 RAMNATH AND NUNDHAL, Hurkhajwala,
Dehra Doon
Fine Souchong tea
- 48 SAFE, T. R., Punkabaree Tea Company
Four samples of teas
- 49 BISHNATH TEA COMPANY
Four samples of teas
- 50 JARDINE, SKINNER, & Co., MESSRS.
Five samples of teas
- 51 MONEY, J. B. W., Calcutta
Cachar and Kumaon tea
- 52 KUMAON AND KUTTYOOR TEA COMPANY,
Almora
Sixteen samples of teas, and three of brick
teas
- 53 TELWAREE TEA COMPANY, Almora
Twelve samples of teas
- 54 McIVER, K., Kousanie Tea Company,
Kumaon
Fourteen samples of teas, and three of brick
teas
- 55 WHEELER BROTHERS, MESSRS., Ramgurh
and Julua Tea Estate, Kumaon
Samples of teas
- 56 LENNOX, J. NAPIER, Kangra Valley Tea
Company
Twelve samples of teas
- 57 DUFF, CAPTAIN, Bundla Plantation, Kangra
Valley
Six samples of teas

- 58 KNOX, LIEUTENANT, Hooloo Tea Estate, Punjab
Two samples of teas
- 59 DENNIS, COLONEL, Gopalpur Factory, Punjab
Sample of tea
- 60 RAE, H. D., Ootacamund
Two varieties of teas
- 61 MCPHERSON, JAMES, Coonoor Tea Estate
Twelve samples of teas

Coffee.

- 62 FROM THE BELGAUM COLLECTORATE
Coffee
- 63 SUNDRAYYA, Tahsildar of Tripattur
Coffee grown on the Jarvady Hills
- 64 ADDERLEY, —, Tinnevely
Coffee and peaberry coffee
- 65 AUCHTERLONY, JAMES, Auchterlony Valley, Neilgherries
Nardoobatta coffee
- 66 COOQ, C. H. R., Tinnevely
Coffee and peaberry coffee
- 67 MCFARLANE, —, Shevaroy Hills
Coffee and peaberry coffee
- 68 MAYLOR, W., S. E. Wynaad
Coffee in the husk, in the parchment, and cleaned, and peaberry coffee—five samples
- 69 TAYLOR, CAPTAIN, COORG
Coorg plantation coffee, and peaberry coffee from two-year-old trees
- 70 SUPERINTENDENT LAL BAUGH, Mysore
Coffee in the husk and coffee cleaned, from Hassan; coffee of two qualities from Cudoor
- 71 FROM BELLARY
Ramandroog coffee
- 72 FROM VIZAGAPATAM
Coffee
- 73 BROWN & Co., MESSRS., Penang
Coffee of two kinds
- 74 HOGAN, J. E., Penang
Coffee
- 75 VALBERG, W. J., Singapore
Coffee

Sugars.

- 76 THE CHIEF OF BOWNEE
Sugar-candy
- 77 CAREW & Co., MESSRS., Shahjehanpore
Crystallised sugars
- 78 FROM GYAH, Bengal
Sugar
- 79 FROM MORADABAD
Sugar

- 80 FROM SARUN
Sugar
- 81 BUCHI CHETTI, Alangayam
Jaggery
- 82 SHARMAY SAHIB, Bellary
Samples of sugar
- 83 VENKATAGHERI COTTA, North Arcot
Sugar and candy
- 84 ARBUTHNOT & Co., MESSRS., Bimlipatam
Samples of sugar
- 85 BROWNE & Co., MESSRS., Penang
Samples of sugar
- 86 FISHER, J., Singapore
Cocoanut-palm jaggery
- 87 MINCHIN, F. I. V., Aska Sugar Works, Madras
Samples of sugar obtained by process of diffusion, and without the use of cane-mills
- 88 HAYES, J. W., Palhully
Samples of crystallized sugars
- 89 FROM GODAVERY, Madras
Sugar
- 90 SUPERINTENDENT LAL BAUGH, Mysore
Samples of sugar from Shemoga

Honey.

- 91 BABOO KANNY LALL DEY, Calcutta
Honey
- 92 MARTIN, CAPTAIN, Goonah
Honey
- 93 FROM POONA
Honey
- 94 SUPERINTENDENT LAL BAUGH, Mysore
Honey
- 95 FROM AVA
Honey

Preserved Fruits.

- 96 FROM BOMBAY
Preserved ginger from Surat
- 97 FROM MADRAS
Pineapple preserve; guava and mango jelly
- 98 YEOW SEU BEON, Penang
Preserved fruits

CLASS LXXIII.

Fermented Drinks.

- 1 HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., of Indore
Six kinds of spirituous liquors
- 2 HIS HIGHNESS THE MAHARAJAH RAMSING BAHADOOR, G.C.S.I., of Jeypore
Daroo from various sources

- 3 MARTIN, CAPTAIN, Goona
Rum, mowha, and date spirits
- 4 FROM KURRACHEE
Liquor sindee
- 5 HAYES, J., Bangalore
Rum
- 6 LOCAL COMMITTEE, Madras
Arrack
- 7 FISHER, J., Singapore
Rum

GROUP X.

Articles exhibited with the Special
Object of improving the Physical
and Moral Condition of the People.

CLASS LXXXIX.

Apparatus and Methods used in the
Instruction of Children.

- 1 FROM BOMBAY
School-books printed in various vernaculars
- 2 FROM BENARES
Set of books (vernacular) used in Government
schools, North-West Provinces

- 3 COMMISSIONER, Rajshahye Division, Moor-
shedabad
Six sets alphabets, carved ivory
- 4 FROM MADRAS
School-books and maps, printed in Tamil,
Telooqoo, Canarese, Malayalim, &c.
- 5 CHRISTIAN VERNACULAR EDUCATION SOCIETY,
Adam-street, Adelphi, London
Maps and books in the native languages of
India

CLASS XCII.

Specimens of the Clothing worn by
the People of different Countries.

- 1 COLDSTREAM, W., Dhurmsala
Complete suits of clothing of male and female
of Kooloo and Lahoul tribes
- 2 LAWRENCE, COLONEL, Bengal Staff Corps,
Simla
Male and female apparel of Hindoo, Ladaki,
Povindah, and Wuzeree
- 3 JAESCHKE, Rev. A., Kailing in British La-
hore
Apparel of a llama
- 4 FROM RAWUL PINDEE, per Deputy Com-
missioner, Punjab
Dresses of Putwarra women, Gheba and
Chachi men
- 5 FROM RANGOON
Clothing of male and female

JAMAICA.

[No Committee appointed.]

[*Point de comité nommé.*]

[Kein Ausschuss ernannt.]

[*Non fu nominato un comitato.*]

GADPAILLE, C., Kingston, Jamaica

Old rum, orange wine, ginger wine, and
pimento dram

*Rhum vieux, vin d'orange, de gingembre, et
liqueur de piment*

Alter Rum, Orangen- und Ingwer-Wein und
Pimentliqueur

*Rum vecchio, vino d'arance, vino di zenzero,
e liquore di pimento*

LAGOS AND CENTRAL AFRICA.

[No Committee appointed.]

[*Point de comité nommé.*]

[Kein Ausschuss ernannt.]

[*Non fu nominato un comitato.*]

1 SIMMONDS, E. J. L., 8 Winchester-street,
London

Collection formed by the Exhibitor representing the arts, manufactures, and products of Central Africa

Collection d'objets formée par l'exposant représentant les arts, manufactures et produits de l'Afrique Centrale.

Eine Sammlung von Gegenständen, welche die Künste, Fabricate und Producte Central-Afrikas repräsentiren

Collezione formata dall' Espositore, rappresentante le arti, le manifatture e i prodotti dell' Africa Centrale

MALTA.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 SCHRANTZ, GIOVANNI, Valletta
 St. Paul's shipwreck; a Gozo boat under sail
Le naufrage de St. Paul; bateau de l'île de Gozo sous voiles
 St. Paul's Schiffbruch; ein Boot von der Insel Gozo unter Segel
Il naufragio di S. Paolo; barca di Gozo sotto vela
- 2 CORTIS, IGNAZIO CARLO, Valletta
 The descent from the cross
La descente de la croix
 Die Abnahme vom Kreuz
La Deposizione dalla Croce

CLASS II.

Water-colour Paintings and Drawings.
Peintures diverses et Dessins.
 Andere Gemälde und Zeichnungen in Wasserfarben.
Acquerelli e Disegni.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 BELLANTI, DR. MICHELE, Valletta
 Two water-colour paintings of native costumes
Deux aquarelles de costumes nationaux
 Zwei Gemälde in Wasserfarben von Anzügen der Eingebornen
Due acquerelli di costumi nazionali
- 2 FERRO, HENRY, Valletta
 Types of animals and plants characteristic of the place
Dessins d'animaux et de plantes rappelant les types caractéristiques du pays
 Bilder von Thieren und Pflanzen, die dem Lande eigenthümlich sind
Tipi d'animali e piante caratteristiche del luogo

CLASS III.

Sculpture and Die-Sinking.
Sculptures et Gravures sur Médailles.
 Bildhauerarbeit und Gravirungen in Metall.

Scultura e Incisione a conio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 FRANCALANZA, LUIGI, Valletta
 Specimens of stone carving: flower vases, jug, card vases, baskets
Objets sculptés en pierre: vases à fleurs, cruche, corbeilles à cartes, paniers
 Proben von Sculptur in Stein: Blumenvasen, Krug, Vasen für Karten, Körbchen
Saggi di scultura in pietra: vasi da fiori brocca, vasi da biglietti, panier
- 2 DARMANIN, GIUSEPPE, & SONS, Valletta
 Marble tables, inlaid in the 'pietra dura' style
Tables de marbre ornées de mosaïques en pierres dures
 Marmortische, mit eingelegten harten Steinen
Tavole di marmo, intarsiata a pietra dura
- 3 BIGHE, MICHELE, Valletta
 Specimens of native marbles: corner stands, flower vases
Spécimens des marbres du pays: piédestaux, e vases à fleurs
 Musterstücke von einheimischem Marmor; Piedestale, Blumenvasen
Saggi di marmi indigeni, piedistalli negli angoli, vasi da fiori
- 4 TESTA, FORTUNATO, Valletta
 Stone vases for parterre or drawing-room
Vases de pierre pour le parterre ou le salon
 Steinvasen für das Parterre oder für das Besuchszimmer
Vasi di pietra per pratelli, o saloni
- 5 DIMECH, CARMELO, Valletta
 Stone vases for parterre or drawing-room
Vases de pierre pour le parterre ou le salon
 Steinvasen für das Parterre oder für das Besuchszimmer.
Vasi di pietra per pratelli, o saloni

GROUP II.—CLASS VII.

Paper and Stationery ; Binding, &c.
Objets de Papeterie, Reliures, etc.
 Papier und Buchhändlerwaaren ;
 Einbände etc.
Carta e Cartoleria ; Rilegature, ecc.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

1 MAMO, FEDERICO, Valletta

Illuminations in the mediæval style, and process used in painting the same
Enluminures dans le style moyen âge ; procédé d'enluminure
 Illuminationen im mittelalterlichen Geschmack und Verfahren zum Malen derselben
Miniature in stile medio evo, e processo usato nel dipingerle

2 CALLEJA, ANTONIO, Valletta

Bookbinding—*Reliures*
 Einbände—*Rilegature*

CLASS IX.

Photographic Proofs and Apparatus.
Épreuves et Appareils de Photographie.
 Photographische Proben und Apparate.
Prove e Apparatî Fotografici.

(For detailed classification, see p. xv.)
 (Voir le système de classification, p. xv.)
 (Für detaillirte Classification, siehe Seite xv.)
 (Vedasi il sistema di classificazione, p. xv.)

1 PREZIOSI, LEANDRO, Floriana

Photographic portraits, native costumes, distinguished men, &c.
Portraits photographiques, costumes du pays, hommes célèbres, etc.
 Photographische Portraits, Anzüge der Eingebornen, berühmte Männer etc.
Ritratti fotografici, costumi indigeni, uomini distinti, ecc.

2 ZAHRA, MICHELE, Valetta

Photographs of the most conspicuous public buildings, the town and fortifications, military gates, country scenery
Épreuves photographiques des principaux monuments publics, de la ville et des fortifications, des portes militaires ; et paysages
 Photographien der auffallendsten öffentlichen Gebäude der Stadt und der Befestigungswerke, von militärischen Thoren, von Landschafts-Scenerie
Fotografie degli edifizî pubblici più cospicui, la città e le fortificazioni, porte militari, scene campestri

3 MICALLEF, DR. G., Valletta

Specimens of photography, representing objects of local interest
Épreuves photographiques des monuments locaux

Proben der Photographie in Gegenständen von localem Interesse
Saggi di fotografia rappresentanti oggetti di interesse

CLASS XI.

Medical and Surgical Instruments and Apparatus.

Appareils et Instruments de l'Art Médical.

Medicinische und chirurgische Instrumente und Apparate.

Instrumenti e Apparatî Medici e Chirurgici.

(For detailed classification, see p. xv.)
 (Voir le système de classification, p. xv.)
 (Für detaillirte Classification, siehe Seite xv.)
 (Vedasi il sistema di classificazione, p. xv.)

1 GRIMA, LUIGI, Senglea

Hospital bedstead for lifting patients without touching them
Lit d'hôpital pour soulever les malades sans les toucher
 Hospital-Bettstelle, um Kranke aufzuheben, ohne sie anzurühren
Lettiera da spedali per sollevare gli ammalati senza toccarli

2 INGLOTT, F. V., Valletta

Model of ventilating window for hospitals in hot climates
Modèle de fenêtre pour la ventilation des hôpitaux dans les climats chauds
 Modell eines Hospitalfensters zur Ventilation in heissen Climates
Modello di finestra ventilatrice per ospedali in climi caldi

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

Cartes et Appareils de Géographie et de Cosmographie.

Karten und geographische und cosmographische Apparate.

Mappe e Apparatî Geografici e Cosmografici.

(For detailed classification, see p. xvi.)
 (Voir le système de classification, p. xvi.)
 (Für detaillirte Classification, siehe Seite xvi.)
 (Vedasi il sistema di classificazione, p. xvi.)

1 PULLICINO, VERY REV. CANON, Valletta

Map of Malta and Gozo in relief
Carte en relief des îles de Malte et de Gozo
 Reliefkarte von Malta und Gozo
Mappe in rilievo di Malta e di Gozo

GROUP III.—CLASS XIV.

Fancy Furniture.

Meubles de Luxe.

Luxusmöbel.

Mobili di Lusso.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 SECOND BROTHERS, Valletta

Olive-wood tables and mediæval pattern chairs

Tables de bois d'olivier, et chaises, style moyen âge

Aus Oelbaumholz verfertigte Tische und

Stühle im mittelalterlichen Geschmack

Tavole d'ulivo e sedie di forma medio evo

2 BELLANTI, DR. MICHELE, Valletta

A table as a specimen of 'Tarsia,' a 'medagliere' or coin-museum-case, a pedestal of a crucifix

Table de tarse, 'medagliere,' ou boîte à médailles, piédestal de crucifix

Ein Tisch, als eine Probe von 'Tarsia,' ein 'Medagliere' oder Münzensammlungscabinet, ein Crucifixstand

Tavola per saggio di 'intarsio,' medagliere o stipo-museo-numismatico, piédistallo di crucifisso

CLASS XV.

Upholstery and Decorative Work.

Ouvrages de Tapissier et de Décorateur.

Tapezirer- und Decorateur-Arbeit.

Tapezzeria e Lavori Decorativi.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 CATANIA, ANTONIO, Rabato Notabile

Specimens of carving in wood, frames, &c.

Sculptures en bois, cadres, etc.

Proben von Sculptur in Holz, Rahmen etc.

Saggi di intagli in legno, cornici, ecc.

2 GAUCI, ANTONIO, Valletta

Decorative furniture (gilt), side tables

Meubles de luxe dorés, guéridons

Vergoldete Luxusmöbel, Seitentische

Mobili decorativi (dorati), tavole laterali

3 DARMANIN, CARLO, Senglea

Statuettes with flower baskets, for drawing-room; lay figures to exhibit lace; lay figures to exhibit clothing worn by the natives

Statuettes avec corbeilles à fleurs pour le salon; dentelles exposées sur des mannequins; costumes nationaux exposés sur des mannequins

Statuetten mit Blumenkörbchen für das Besuchszimmer; Gliederpuppen zur Ausstellung von Spitzen; Gliederpuppen zur Ausstellung von Anzügen der Eingebornen

Statuette con panierine da fiori per salone, manichini per esporre trine, manichini per esporre gli abbigliamenti usati dagli indigeni

4 CARDONA, GIUSEPPE, Valletta

Ebony cross, inlaid pedestal, &c.; photographs *Croix d'ébène, piédestal incrusté; épreuves photographiques*

Ein Kreuz von Ebenholz, ein eingeleger Säulenfuss etc.; Photographien

Croce d'avorio, piédistallo intarsiato, ecc.; fotografie

CLASS XVII.

Porcelain, Earthenware, and other

Fancy Pottery.

Porcelaines, Faïences, et autres Poteries de Luxe.

Porcellan, irdene Waaren und andere geschmackvolle Töpferwaaren.

Porcellana, Terraglie, ed altri Vaselami di Lusso.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 DISTON, JOHN, Valletta

Terra cotta vases, flower-pots, &c.

Vases, pots à fleur, etc., de terra cotta

Terra-Cotta-Vasen, Blumentöpfe etc.

Vasi di terra cotta, vasi da fiori, ecc.

CLASS XVIII.

Carpets, Tapestry, and other Stuffs for Furniture.

Tapis, Tapiserie et autres Tissus d'Ameublement.

Teppiche, Tapiserie und andere Stoffe für Möbel.

Tappeti, Tappezzeria, ed altre Stoffe da Mobilia.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 CARUANA, FEDELE, Floriana

Corina matting and door mats in coloured corina leaves

Nattes de corina, et paillassons de feuilles de corina teintes

Mattenwerk aus Corina und Thürmatten aus gefärbten Corinablättern

Stuoie e stoini da porte di corina in foglie di corina colorate

CLASS XXI.

Gold and Silver Plate.

Orfèverie.

Gold- und Silbergeschirr.

Ori e Argenti.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 MUSCAT, PUBBLIO, Valletta

Silver plate of modern and antique patterns
Vaisselle en argent, modèles modernes et antiques

Silbergeschirr in modernen und antiken Mustern

Argenteria di disegni antichi e moderni

GROUP IV.—CLASS XXVII.

Cotton Thread and Fabrics.

Fils et Tissus de Coton.

Baumwollene Faden und Gewebe.

Filo e Tessuti di Cotone.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

1 ZAMMIT, G. B., Cospicua

Cotton fabrics, plain and figured; cotton dressed and spun

Tissus de coton, unis et façonnés; cotons préparés et filés

Baumwollenzeuge, gewöhnlich und gemustert; dressirte und gesponnene Baumwolle

Tessuti di cotone lisci e a disegno, cotone preparato e filato

CLASS XXX.

Carded Wool and Woollen Fabrics.

Fils et Tissus de Laine Cardée.

Gekrämpelte Wolle und wollene Fabricate.

Lana Cardata e Tessuti di Lana.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

1 CALLEJA, GIORGIO, Gozo

Carded wool and woollen yarn as prepared by the poorer classes for domestic purposes

Laine cardée, et fils de laine cardée, fabriquée par les classes ouvrières pour la consommation domestique

Gekrämpelte Wolle und Wollengarn, wie es von der ärmeren Klasse für häusliche Zwecke zubereitet wird

Lana cardata e filo scempio di lana come è preparato dalle classi più povere per uso domestici

CLASS XXXI.

Silk and Silk Manufactures.

Soies et Tissus de Soie.

Seide und Seidenfabricate.

Seta e Manifatture di Seta.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

1 SOCIETÀ ECONOMICO AGRARIA, Malta

Raw and thrown silk

Soies grêges et moulînées

Rohe und gezwirnte Seide

Seta cruda e tirata

CLASS XXXIII.

Lace, Net, Embroidery, and Small Ware Manufactures.

Dentelles, Tulle, Broderies et Passementeries.

Spitzen, Netze, Stickereien und Kurzwaaren.

Trina, Tulle, Ricami, e Mercerie.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

1 BORG, P. P., Valletta

Thread and silk shown on lay figures

Dentelles de fil et de soie exposées sur des mannequins

Zwirn- und seidene Spitzen, ausgestellt auf Gliederpuppen

Trina di filo e di seta mostrata su manichini

2 MICALLEF, SALVATORE, Valletta

Thread and silk lace, head-dresses, parasol covers, &c.

Dentelles de fil et de soie, coiffures, garnitures d'ombrelles, etc.

Zwirn- und seidene Spitzen, Coiffuren, Ueberzüge für Sonnenschirme etc.

Trina di filo e di seta, acconciature di testa, seta da parasoli, ecc.

3 MUNNERO, VICENZO, Valletta

Thread and silk lace

Dentelles de fil et de soie

Zwirn- und seidene Spitzen

Trina di filo e di seta

4 ZIMELLI, VINCENZO, Valletta

Gold and silver embroidery

Broderies d'or et d'argent

Stickereien in Gold und Silber

Ricami in oro e in argento

5 POLITO, CANONICO, Vittoriosa

Ecclesiastical embroidery

Broderies pour vêtements sacerdotaux

Stickereien für Kirchen

Ricami ecclesiastici

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidung für beide Geschlechter.

Abbigliamenti per ambe i Sessi.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 VELLA, NATALE, Valletta

Men's hats (corina work)

Chapeaux d'hommes (de corina)

Herrenhüte aus Corina

Cappelli da uomo (lavoro in corina)

CLASS XXXVI.

Jewellery and Precious Stones.

Joallerie et Bijouterie.

Geschmeide und Edelsteine.

Gioie e Pietre Preziose.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 CRITIEN, EMIDIO, Valletta

Gold and silver filigree ornaments

Bijoux en or et argent filigranés

Filigranornamente in Gold und Silber

Ornamenti in filigrana d' oro e d' argento

2 PACE, PAOLO, Valletta

Gold and silver filigree ornaments

Bijoux en or et argent filigranés

Filigranornamente in Gold und Silber

Ornamenti in filigrana d' oro e d' argento.

3 MELI, CARMELO, Valletta

Gold bracelets, &c.—*Bracelets en or, etc.*

Goldene Armspangen etc.

Braccialetti d' oro, ecc.

CLASS XXXIX.

Toys, etc.

Bimbeloterie, etc.

Spielzeug etc.

Balocchi, ecc.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 ZAMMIT, ENRICO, Floriana

Images in wax of native costumes

Figurines de cire de costumes nationaux

Wachsfiguren von einheimischen Anzügen

Figurine di cera in costumi indigeni

2 POLITO, CANONICO, Vittoriosa

Images in wax of the Knights of Malta

Figurines de cire des Chevaliers de Malte

Wachsfiguren von Malteser Rittern

Figurine in cera dei Cavalieri di Malta

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Bergwerks- und Hüttenerzeugnisse.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 SCHEMBRI, GIUSEPPE, Vittoriosa

Specimens of copper-smith work: a basin and

jug, a set of native measures of capacity

Chaudronnerie: bassin et pot, mesures de capacité du pays

Proben von Kupferschmiedearbeit: eine Schüssel und Krug, ein Satz von landesgebräuchlichen Hohlmassen

Saggi di lavori di calderiaio, brocca e catinella, assortimento di misure indigene di capacità

2 MUSCAT, FRANCESCO PASQUALE, Valletta

Bell-metal castings, hand bells, and a large signal bell

Fontes de bronze, grande cloche d'alarme, et clochettes

Güsse aus Glockenmetall, Handschellen und eine grosse Signalglocke

Fusioni in bronzo da campana, campanelli e campana grande da segnali

3 DARMANIN, GIUSEPPE, & SONS, Senglea

Stone water filters

Filtres en pierre

Steinerne Wasserfiltrirbecken

Filtri in terra grès

4 GALIZIA, EMMANUELE, Valletta

Specimens of rocks (soft and hard), hard rocks polished, earths, and clays

Spécimens de roches (tendres et dures), roches dures polies, sables et argiles

Exemplare von Felsarten (weich und hart), hartem polirten Gesteine, Erden und Thonen

Saggi di roccie (tenere e dure), roccie dure tirate a lustro, terre e argille

5 ABELA, GIUSEPPE, Cospicua

Small iron gates, rails, &c.

Petites portes de fer, grilles, etc.

Kleine eiserne Thore, Gitterwerke etc.

Piccoli cancelli in ferro, ringhiere, ecc.

6 MISSUD, GIOVANNI BATTÀ, Cospicua

Small iron gates, rails, &c.

Petites portes de fer, grilles, etc.

Kleine eiserne Thore, Gitterwerke etc.

Piccoli cancelli in ferro, ringhiere, ecc.

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der davon abhängigen Gewerbe.

Prodotti della Cultura delle Foreste e delle Industrie che ne derivano.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 MISSUD, GIUSEPPE, Valletta

Cane baskets as used for domestic purposes

Paniers de jonc pour l'usage domestique

Rohrkörbe, wie sie für häusliche Zwecke gebraucht werden

Panieri di canna come adoperati negli usi domestici

CLASS XLII.

Products of Shooting, Fishing, and of the Earth, obtained without Cultivation.

Produits de la Chasse, de la Pêche et des Cueillettes.

Producte der Jagd, des Fischfangs und der Erde, erhalten ohne Cultur.

Prodotti della Caccia, della Pesca, e della Terra, ottenuti senza Coltura.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 STRICKLAND, N., Valletta

A specimen of coral in its natural state, found on the coasts of Malta

Spécimen de corail brut pêché sur le littoral de Malte

Ein Exemplar einer Coralle in ihrem natürlichen Zustande, gefunden an der Küste von Malta

Saggio di corallo allo stato naturale, trovato sulle coste di Malta

2 SOCIETÀ ECONOMICO-AGRARIA, Malta

Lichens used as dyes; wax and honey

Lichens employés pour la teinture; cires et miels

Flechten, die zum Färben gebraucht werden;

Wachs und Honig

Licheni adoperati nella tintoria; cera e miele

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile conservation.

Leicht conservirbare Agricultur-Producte (die nicht zur Nahrung dienen).

Prodotti agrari (non usati per Cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 SOCIETÀ ECONOMICO-AGRARIA, Malta

Raw cotton (white and red), cocoons of the silk-worm

Cotons bruts (blancs et rouges), cocons de vers à soie

Rohe Baumwolle (weiss und roth), Cocons von Seidenwürmern

Cotone grezzo (bianco e rosso), bozzoli di bigatti

2 DELICATA, PROFESSOR G. C., Malta University

Specimen of a local medical herbarium (scylla bulbs)

Spécimen d'un herbier local médical (bulbes de scylla)

Ein Exemplar eines lokalen medicinischen Herbariums (Scyllazwiebeln)

Saggi di erbario medico locale (bulbi di scilla)

3 ZAMMIT, GIOVANNI MARIA, Senglea
Tobacco in leaf and made into segars
Tabacs en feuilles et cigares
Tabak in Blättern und Cigarren
Tabacco in foglia, e fatto in sigari

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Producte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 AQUILINA, LUCA, Valletta

Sea-salt in large and small crystals

Sel marin en cristaux

Seesalz in grossen und kleinen Crystallen

Sal marino in cristalli grandi e piccoli

2 DARMANIN, GIOVANNI, Floriana

Hard soap—*Savons durs*

Harte Seife—*Sapon sodo*

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Pelze.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 MELI, GIUSEPPE, Valletta

Leather as carried by the natives

Peaux corroyées par les indigènes

Von den Eingebornen gegerbtes Leder

Cuoio conciato dagli indigeni

GROUP VI.—CLASS LI.

Apparatus used in Chemistry, Pharmacy, and in Tan-yards.

Matériel des Arts Chimiques, de la Pharmacie, de la Tannerie.

Apparate, die in der Chemie, Pharmacie und Gerberei gebraucht werden.

Apparati usati nella Chimica, Farmacia, e Concia.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 ZAMMIT, GIOVANNI MARIA, Senglea

Submarine adhesive composition to repair india-rubber and gutta-percha diving dresses, hose, &c.

Composition imperméable servant à la réparation des objets de caoutchouc et de gutta-percha, des vêtements spéciaux de plongeur, des tuyaux élastiques, etc.

Wasserdichte stickende Composition zum Repariren von Caoutchouc- und Gutta-Percha-Anzügen für Taucher, Schläuche etc.

Composizione adesiva sottomarina per rattoppare vesti di palombari, tubi, ecc., in gomma elastica e gutta-perca

CLASS LXII.

Harness and Saddlery.

Bourrellerie et Sellerie.

Pferdegeschirr und Sättel.

Fornimenti da Cavalli e Sellerie.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 GASCILLI BROTHERS, Valletta

A saddle and a bridle—*Selle et bride*

Ein Sattel und ein Zügel—*Sella e briglia*

CLASS LXV.

Civil Engineering, Public Works, and Architecture.

Matériel et Procédés du Génie Civil, des Travaux Publics, et de l'Architecture.

Civilingenieurkunst, öffentliche Bauten und Architectur.

Genio Civile, Lavori Pubblici, e Architetture.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 GALIZIA, EMMANUELE, Valletta

Hard and soft stone as used in building, flagging, and roofing stones; indurated stone; plans and drawings of public buildings for a special purpose

Matériaux de construction, carreaux pour dallage et pour couvertures; pierres durcies; plans et dessins de bâtiments publics de destination spéciale

Harte und weiche Steine, gebraucht zum Bauen, Belegen mit Steinplatten (Fliesen) und Dachdecken; gehärtete Steine; Pläne und Zeichnungen von öffentlichen Gebäuden für spezielle Zwecke

Pietra dura e tenera usata nelle costruzioni, lastrichi e tettoie; pietre indurate; piante e disegni di edifici pubblici per oggetto speciale

2 MIFSUD, GIUSEPPE, Valletta

Red pine wood stained, polished, and varnished

Bois de sapin rouge, mis en couleur, poli, et verni

Rothes Fichtenholz, gefärbt, polirt und gefirnisst

Legno di pino rosso colorato, lustrato e verniciato

3 GRIMA, LUIGI, Senglea

Tools used by stone dressers

Outils de tailleur de pierres

Steinhauerwerkzeuge

Arnesi usati dagli scolpellini

4 BONAVIA, C., C.E., Valletta

Model of a building and section of a street, to show generally the construction of native dwellings

Modèle et section d'une rue, faisant voir la construction des habitations des indigènes

Modell eines Gebäudes und Durchschnitt einer Strasse, um im Allgemeinen die Construction der Wohnungen der Eingebornen zu zeigen

Modello di costruzione e sezione di una strada per mostrare la costruzione delle abitazioni indigene in generale

CLASS LXVI.

Navigation and Life-Boats.

Matériel de la Navigation et du Sauvetage.

Schiffahrt und Rettungsboote.

Navigazione e Barche di Salvazione.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 BONNICI, MICHELE, Senglea

Model of a shore boat and of a fishing boat with gear, &c.

Modèles d'embarcation et de bateau pêcheur, avec leur matériel, etc.

Modell eines Küstenfahrzeugs und eines Fischerbootes mit Ausrüstung etc.

Modello di barca da costa, e d'una pescareccia con attrazzi, ecc.

GROUP VII.—CLASS LXVII.

Cereals and other Eatable Farinaceous Products, and the Products derived from them.

Céréales et autres Produits Farineux Comestibles, avec leurs dérivés.

Getreide und andere essbare mehligte Erzeugnisse und deren Educte.

Cereali ed altri Comestibili Farinacei, e Prodotti che ne derivano.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 SOCIETÀ ECONOMICO-AGRARIA, Malta

Native cereals, and other eatable farinaceous products, such as pastes, semolina, &c.
Céréales et autres produits farineux comestibles du pays, pâtes, semoules, etc.

Einheimisches Getreide und andere essbare mehligte Erzeugnisse, wie Teige, Semolina etc.
Cereali indigeni, ed altri farinacei comestibili, come paste, semolino, ecc.

CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie et de la Pâtisserie.

Brot und Pasteten.
Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CINI, FRATELLI, S. Giuseppe-road

Navy biscuits—*Biscuits pour la marine*
 Schiffszwiebacke—*Biscotto di mare*

CLASS LXIX.

Fatty Substances used as Food; Milk and Eggs.

Corps Gras Alimentaires; Laitages et Œufs.

Essbare fette Substanzen; Milch und Eier.

Sostanze Grasse usate per Cibo; Latte e Uova.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 PACE, GIUSEPPE, GOZO

Gozo cheese—*Fromage de Gozo*
 Käse von Gozo—*Cacio di Gozo*

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruits.

Gemüse und Früchte.

Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 SOCIETÀ ECONOMICO-AGRARIA, Malta

Native vegetables and fruit

Légumes et fruits du pays

Gemüse und Früchte des Landes

Ortaggi e frutta indigene

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Zuckerwerk.

Condimenti e Stimolanti; Zucchero e Prodotti di Confettureria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 SOCIETÀ ECONOMICO-AGRARIA, Malta

Condiments and confectionery

Condiments et pièces de confiserie

Gewürze und Zuckerbäckerwaaren

Condimenti e confetture

CLASS LXXIII.

Fermented Drinks.

Boissons Fermentées.

Geistige Getränke.

Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 SOCIETÀ ECONOMICO-AGRARIA, Malta

Fermented drinks, vin ordinaire, rosolios

Boissons fermentées, vin ordinaire, rosolio

Geistige Getränke, Tischwein, Rosolio

Bevande fermentate, vini ordinari, rosoli

GROUP X.—CLASS XCII.

Specimens of Clothing worn by the People of various Countries.

Spécimens des Costumes Populaires des diverses Contrées.

Anzüge, die vom Volke verschiedener Länder getragen werden.

Saggi di Panni usati dalle Popolazioni di vari Paesi.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 THE LOCAL COMMITTEE, Malta

Two lay figures (a male and a female), showing the clothing worn by the country people

Costumes des indigènes des deux sexes exposés sur des mannequins

Zwei Gliederpuppen in der landesüblichen Kleidung (Mann und Frau)

Due manichini (maschio e femmina) che mostrano i panni usati dai campagnoli

MAURITIUS.

GROUP I.—CLASS I.

Paintings in Oil.—*Peintures à l'Huile.*
Oelgemälde.—*Quadri a Olio.*

(For detailed classification, see p. xiv.)
(*Voir le système de classification, p. xiv.*)
(Für detaillierte Classification, siehe Seite xiv.)
(*Vedasi il sistema di classificazione, p. xiv.*)

1 DESJARDINS, NUMA

Oil paintings—*Peintures à l'huile*
Oelgemälde—*Quadri a olio*

CLASS II.

Water-colour paintings and drawings.
Aquarelles et Dessins.

Gemälde und Zeichnungen in Wasser-
farben.

Acquerelli e Disegni.

(For detailed classification, see p. xiv.)
(*Voir le système de classification, p. xiv.*)
(Für detaillierte Classification, siehe Seite xiv.)
(*Vedasi il sistema di classificazione, p. xiv.*)

1 MACLEAN, MRS. PETER

Water-colour drawings—*Peintures à l'aquarelle*
Gemälde in Wasserfarben—*Acquerelli*

2 MOON, MRS. DE C.

Water-colour drawings—*Peintures à l'aquarelle*
Gemälde in Wasserfarben—*Acquerelli*

3 ULCOQ, CLEMENT

Water-colour drawings—*Peintures à l'aquarelle*
Gemälde in Wasserfarben—*Acquerelli*

CLASS III.

Sculpture and Die-sinking.

Sculptures et Gravures sur Médailles.

Bildhauerarbeit und Stempelschneide-
kunst.

Scultura e Incisione a conio.

(For detailed classification, see p. xiv.)
(*Voir le système de classification, p. xiv.*)
(Für detaillierte Classification, siehe Seite xiv.)
(*Vedasi il sistema di classificazione, p. xiv.*)

1 D'ÉPINAY, P., Mauritius and Rome

Statues—*Statues*
Statuen—*Statue*

GROUP II.—CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerkunst und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)
(*Voir le système de classification, p. xiv.*)
(Für detaillierte Classification, siehe Seite xiv.)
(*Vedasi il sistema di classificazione, p. xiv.*)

1 GOVERNMENT OF MAURITIUS

Ephemeral productions of 1865

Publications éphémères de 1865

Tagesliteratur von 1865—*Ephemere del 1865*

CLASS VIII.

Applications of Drawing and Model-
ling to the Common Arts.

Applications du Dessin et de la Plastique
aux Arts usuels.

Anwendungen des Zeichnens und
Modellirens auf die gewöhnlichen
Künste.

Applicazioni del Disegno e della Plastica
alle Arti Usuali.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillierte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

1 POOLE, MRS. G. HERBERT

Wax imitations of tropical fruits

Modèles en cire de fruits du tropique

Nachahmungen in Wachs von tropischen
Früchten

Imitazioni in cera di frutti dei tropici

CLASS IX.

Photographic Proofs and Apparatus.

Epreuves et Appareils de Photographie.

Photographische Proben und Apparate.

Prove e Appareti Fotografici.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillierte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

1 SAUNIER & BRITTER

Panorama of Port Louis; photographic views

Panorama de Port Louis; épreuves photo-
graphiques

Panorama vom Port Louis und Landschafts-
photographien

Panorama di Porto Louis e vedute fotografiche

CLASS XIII.

Maps and Geographical and Cosmo-
graphical Apparatus.

Cartes et Appareils de Géographie et de
Cosmographie.

Karten, geographische und cosmo-
graphische Apparate.

Mappe e Appareti Geografici e Cosmo-
grafici.

(For detailed classification, see p. xiv.)

(*Voir le système de classification, p. xiv.*)

(Für detaillierte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione, p. xiv.*)

1 BOUSQUET, EUGÈNE HENRI

MSS. relative to cyclones, accompanied with
charts

Rapport en manuscrit sur les vents, dits cy-
clones, avec cartes

Manuskripte über Cyclone, mit Karten

MSS. relativi ai cicloni, corredati di carte

2 DARDENNE, A.

Map of Mauritius in chromolithography
Carte chromolithographique de l'île Maurice
 Chromolithographische Karte von Mauritius
Mappa di Maurizio in cromolitografia

GROUP IV.—CLASS XXXI.

Silk and Silk Manufactures.

Soies et Tissus de soie.

Seide und Seidenwaaren.

Seta, e Seta Manifatturata.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

1 MORRIS, MRS.

Specimen of Mauritian silk

Spécimen de soie de l'île Maurice

Muster von Seide von Mauritius

Saggio di seta di Maurizio

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidungsstücke für beide Geschlechter.

Abbigliamento per ambo i sessi.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 PACKENHAM, J. C., H. B. M.'s Consul, Madagascar

Llamba made with native silk

Llamba de soie indigène

Llamba aus Seide des Landes

Llamba fatto di seta indigena

CLASS XXXVII.

Portable Weapons.—*Armes Portatives.*

Tragbare Waffen.—*Armi Portatili.*

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 BARCLAY & Co., Madagascar

Spears—*Lances*

Speere—*Lance*

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Bergbau- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 LEMIERE, H., Consul for Madagascar

Black lead taken from the mines in Madagascar

Plombagine tirée des mines de Madagascar

Graphit aus den Madagascar-Gruben

Piombaggine estratta dalle miniere in Madagascar

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der davon abhängigen Geschäftszweige.

Prodotti della Coltura delle Foreste e delle Industrie che ne derivano.

(For detailed classification, see p. xx.)

(*Voir le système de classification, p. xx.*)

(Für detaillirte Classification, siehe Seite xx.)

(*Vedasi il sistema di classificazione, p. xx.*)

1 WARD, SWINBURNE, H. M.'s Civil Commissioner, Seychelles

Baskets and pieces of plait, made of the

Coco-de-mer leaves; collection of woods

Corbeilles et tresses de feuilles de Coco-de-mer;

collection de bois

Körbchen und Flechtwerke aus Coco-de-mer

Blättern; Sammlung von Hölzern

Panieri e treccia fatta di foglie del Cocco di

mare; collezione di legni

2 NAGÉON, MLLÉ., Seychelles

Fan and baskets—*Eventail et corbeilles*

Fächer und Körbe—*Ventaglio e panieri*

3 JENNER, GEORGE, Police magistrate, Rodrigues

Vacoa, palmiste, rope, cotton

Vacoa, palmiste, corde, coton

Vacoa, Palmiste, Seile, Baumwolle

Vacoa, palmiste, corda e cotone

4 MELLER, DR., Botanical Gardens, Pamplemousses

Fibres and woods

Fibres et bois

Fasern und Holzarten

Fibri e legni

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits Agricoles (non-alimentaires) de facile conservation.

Leicht conservirbare Agricultur-Producte, die nicht zur Nahrung dienen.

Prodotti d'Agricoltura (non usati per cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(*Voir le système de classification, p. xx.*)

(Für detaillirte Classification, siehe Seite xx.)

(*Vedasi il sistema di classificazione, p. xx.*)

1 COUGET & Co.

Tobacco, cigars, and snuff

Tabac, cigares et tabac à priser

Tabak, Cigarren und Schnupftabak

Tabacco, sigari, e da naso

2 BERGICOURT, T.

Tobacco, cigars, and snuff
Tabac, cigares et tabac à priser
 Tabak, Cigarren und Schnupftabak
Tabacco, sigari, e da naso

3 PITOT, ROBERT

Cotton—*Coton*—Baumwolle—*Cotone*

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Producte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 BOUTON, LOUIS

Medicinal plants—*Plantes médicinales*
 Arzneipflanzen—*Piante medicinali*

2 GUTHRIE, DR. F.

Nitroxide of phosphorus
Nitroxyde de phosphore
 Stickstoffoxyd des Phosphors
Nitrossido di fosforo

3 SUZOR, E. C.

Varnish—*Vernis*—Firnis—*Vernice*

CLASS XLVI.

Leather and Skins.—*Cuir et Peaux.*

Leder und Häute.—*Cuoio e Pelli.*

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 HERCHENRODER, EUGÈNE,

Bufflock and cow hides, tanned in Mauritius
Peaux de bœuf et de vache tannées à l'île Maurice
 Ochsen und Kuhhäute, in Mauritius gegerbt
Pelli di vitello e vacchetta conciata in Maurizio

GROUP VII.—CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie

Gewürze und Reizmittel; Zucker und Zuckerwerk.

Condimenti e Stimolanti; Zuccheri e Confetture.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 WIEHÉ, Hon. C. & Co., Labourdonnais Estate,
 Rue du Rempart

Sugar—*Sucre*—Zucker—*Zucchero*

2 ICERY, E., La Gaité Estate, Flacq

Sugar—*Sucre*—Zucker—*Zucchero*

3 PITOT, Hon. H., St. Aubin's Estate, Savanne

Sugar, arrowroot, cotton

Sucre, arrowroot, coton

Zucker, Arrowroot, Baumwolle

Zucchero, arrorut, cotone

4 D'ARIFAT FRÈRES & RAY, A., Constance Estate, Flacq

Sugar—*Sucre*—Zucker—*Zucchero*

5 CONSTANTIN, J. D., & Co., Bénare's Estate, Savanne

Sugar—*Sucre*—Zucker—*Zucchero*

6 POULIN, H., Mont Choisy Estate, Pamplemousses

Sugar—*Sucre*—Zucker—*Zucchero*

7 PORTAL, H., Anse Jonchée Estate, Grand Port

Sugar—*Sucre*—Zucker—*Zucchero*

8 ANTELME, Hon. C., Stanley Estate, Plaines Wilhems

Sugar and vanilla—*Sucre et vanille*

Zucker und Vanille—*Zucchero e vaniglia*

9 BARLOW, HENRY, Lucia Estate, Rue du Rempart

Sugar—*Sucre*—Zucker—*Zucchero*

10 BELZIM & HAREL, Trianon Estate, Plaines Wilhems

Sugar—*Sucre*—Zucker—*Zucchero*

11 HEWETSON, WILLIAM

Sugar—*Sucre*—Zucker—*Zucchero*

12 CURRIE, JAMES

Sugar—*Sucre*—Zucker—*Zucchero*

13 CAHAGNET, ÉMILE

Arrowroot and coffee—*Arrowroot et café*

Arrowroot and Kaffee—*Arrorut e caffè*

14 VERDALLE, MRS.

Vanilla—*Vanille*—Vanille—*Vaniglia*

15 LANGLOIS, H. C.

Vanilla—*Vanille*—Vanille—*Vaniglia*

16 LEVIEUX, P. J.

Vanilla—*Vanille*—Vanille—*Vaniglia*

17 BERGICOURT, T.

Arrowroot—*Arrowroot*—Arrowroot—*Arrorut*

18 BARBEAU FRÈRES

Arrowroot—*Arrowroot*—Arrowroot—*Arrorut*

19 LEMIERE, H., Consul for Madagascar

Hazomanitra, aniseed, hazomango, rangozatra, roots

Hazomanitra, graine d'anis, hazomango, rangozatra, racines

Hazomanitra, Anissamen, Hazomongo, Rangozatra, Wurzeln

Hazomanitra, anaci, hazomango, rangozatra, radici

20 MONVOISIN, P.

Preserves and pickles

Confitures et légumes confits dans le vinaigre

Eingemachtes und Pickles (in Essig Eingemachtes)

Conserv e frutti in aceto

21 BROUSSE, M.

Vanilla—*Vanille*—Vanille—*Vaniglia*

CLASS LXXIII.

Fermented Drinks.

Boissons Fermentées.

Geistige Getränke.

Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LAVAUD, JULES

Rum, jamrosa, eau-de-vie, liqueur de Ravensara, of Bibasses (Loquat Japan), of Bigardo (Seville orange)

Rhum, jamrosa, eau-de-vie, liqueur de Ri-

vensara, de Bibasses (Loquat Japan) de Bigarado (Bigarade)

Rum, Jamrosa, Eau-de-vie, Liqueur von Ravensara, von Bibases (Loquat Japan), von Bigardo (Seville Orangen)

Rum, giamrosa, acquavite, liquore di Ravensara, di Bibasse (Loquat Giappone) di Bigardo (arance forti)

2 BRUE, L. E.

Rum—*Rhum*—Rum—*Rum*

3 SERRET, ÉVARISTE

Rum—*Rhum*—Rum—*Rum*

4 WIEHE, P. A.

Rum—*Rhum*—Rum—*Rum*

NATAL.

GROUP I.—CLASS II.

Drawings.—*Dessins.*Zeichnungen.—*Disegni.*

(For detailed classification, see p. v.)

(Voir le système de classification, p. v.)

(Für detaillirte Classification, siehe Seite v.)

(Vedasi il sistema di classificazione, p. v.)

1 SANDERSON, J.; FANNIN, E.; TOPHAM, R. J.

Water-coloured drawings of natural scenery

Aquarelles de paysages de la Colonie

Landschaften in Wasserfarben

Disegni di paesaggi dal vero aquerellati

GROUP II.—CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerei und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 BISHOP OF NATAL; ROOD, D.; CALLAWAY, H.;

TYLER, J.

Books in the Kaffir language

Livres dans la langue Kaffir

Bücher in der Kaffersprache

Libri in lingua Caffra

2 DAVIS & SONS; BARFIELD, A.; BUCHANAN,

D. D.; ROBINSON & VAUSE; LYLE, —; CULLINGWORTH, C.

Year-books and public journals

Recueils annuels et journaux

Jahrbücher und öffentliche Journale

Annuari e giornali pubblici

3 MATTERSON, J. K.; BARFIELD, A.; MIDDEL-

TON, W. H.; NATAL AGRICULTURAL SOCIETY; CHAMBER OF COMMERCE

Scientific journals and pamphlets

Journaux scientifiques et brochures

Wissenschaftliche Journale und Flugschriften

Giornali ed opuscoli scientifici

CLASS IX.

Photographs.

*Epreuves de Photographie.*Photographien.—*Fotografie.*

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 BOWMAN, —; MILNER, J. C.; KISCH & Co.;

BINNS, H.; MIDDELTON, W. H.; HALL, E.

Photographs of natural scenery and native race

Epreuves photographiques de paysages de la colonie, et des indigènes

Photographien von Scenen und Eingebornen des Landes

Fotografie di paesaggi dal vero e della razza indigena

2 SUNDRY AMATEURS

Photographs of native race

Epreuves photographiques des indigènes

Photographien von Eingebornen

Fotografie della razza indigeno

3 MANN, R. J., M.D., Superintendent of Education

Types of Kaffir features; ethnological studies

Types de physiognomies Kaffir; études ethnologiques

Zeichnungen von Kafferköpfen; ethnologische Studien

Tipi di lineamenti Caffri; studi etnologici

CLASS X.

Musical Instruments.

Instruments de Musique.

Musikalische Instrumente.

Strumenti Musicali.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 TOPHAM BROTHERS

Kaffir violin—*Violon Kaffir*
Kaffer-Violine—*Violino Caffro*

CLASS XII.

Meteorological and other Instruments.

Instruments de Météorologie, etc.

Meteorologische und andere Instru-
mente.

Strumenti Meteorologici ed altri.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 PENISTON, W. M.

Paper on weights and measures of Natal
Mémoire sur les poids et mesures de Natal
Ein Artikel über die Gewichte und Maasse
von Natal

Carta di pesi e misure di Natal

2 HALL, W. E.

Models of sun-dial and barometers
Modèles de cadran solaire et de baromètres
Modelle von Sonnenuhren und Barometern
Modelli di meridiana e barometri

CLASS XIII.

Maps.—*Cartes*.—Karten.—*Mappe*.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 SUTHERLAND, C., M.D., Surveyor-General

General map of colony
Carte générale de la colonie
Generalkarte der Colonie
Mappa generale della colonia

2 ARROWSMITH, J.

Engraved map of colony
Carte gravée de la colonie
Gestochene Karte der Colonie
Mappa della colonia, incisa

3 PATERSON, P., Colonial Engineer

Captain Grantham's military survey of colony
Plan militaire de la colonie par le Capitaine Grantham
Capitain Grantham's Militairvermessung der
Colonie
*Geodesia militare della colonia fatta dal Capi-
tano Grantham*

4 MANN, R. J., M.D., Superintendent of Edu-
cation

Map of physical geography of colony
Carte physique de la colonie
Karte der physikalischen Geographie der
Colonie
Mappa della geografia fisica della colonia

5 MANN, R. J., M.D., Superintendent of Edu-
cation

Industrial and social map of the colony
Carte industrielle et sociale de la colonie
Industrie- und Socialkarte der Colonie
Mappa industriale e sociale della colonia

6 MANN, R. J., M.D., Superintendent of Edu-
cation

Charts illustrating climate of colony
Cartes du climat de la colonie
Climatische Karten der Colonie
Carte illustrative del clima della colonia

GROUP III.—CLASS XIV.

Fancy Furniture.—*Meubles de Luxe*.
Luxusmöbel.—*Mobili di Lusso*.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 CABINET OF COLONIAL MANUFACTURE, con-
taining staple productions, belonging to Her
Most Gracious Majesty Queen Victoria
*Meuble confectionné dans la colonie, contenant
les denrées principales, et appartenant à Sa
Majesté la Reine Victoria*

Schränke, in der Colonie gemacht, mit Stapel-
Producten, Eigenthum Ihrer gnädigsten Ma-
jestät der Königin Victoria

*Stipo di manifattura della colonia, contenente
le principali produzioni, proprietà di Sua
Maestà la Regina Vittoria*

2 COMMISSIONERS FOR NATAL

Sideboard of colonial woods and manufacture
*Buffet confectionné dans la colonie de bois in-
digènes*

Tafel aus Colonialhölzern und Verarbeitung
*Credenza di legnami e manifattura della
colonia*

CLASS XVII.

Earthenware and Pottery.

Faïences et Poteries.

Töpfergeschirr und Töpferei; irdene
Waare und Steingut.

Terraglie e Vasellami.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 BAKER, W. G.

Kaffir pottery
Poteries Kaffir
Töpferwaaren der Kaffern
Vasellami Caffri

2 CHATTERTON, J.; WATSON & SONS

Colonial pottery
Poteries de la colonie
Töpferwaaren der Colonie
Vasellami della colonia

CLASS XXVI.

Turned Articles, Wood and Ivory;
Fancy Basketwork and Straw
Manufacture.

*Objets tournés de Bois et d'Ivoire;
Vannerie et Sparterie.*

Gedrehte Gegenstände in Holz und
Elfenbein; geschmackvolle Korb-
und Strohwaaren.

*Oggetti torniti, Legno e Avorio; Lavori
di Lusso in Viminì e Lavori in Paglia.*

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 BUCHANAN, D. D., JUN.; NATAL COMMISSIONERS

Kaffir basket and mat work

Panier et nattes Kaffirs

Korb und Flechtwerk der Kaffern

Panieri e stioie Caffre

2 BUCHANAN, D. D., JUN.; SUTHERLAND, P., M.D.

Kaffir wood carving

Bois sculpté par les Kaffirs

Holzschnitzerei der Kaffern

Intagli in legno Caffri

3 BUCHANAN, D. D., JUN.; SINCLAIR, C. R.

Kaffir pipes—*Pipes Kaffirs*

Pfeifen der Kaffern—*Pipe Caffre*

4 BUCHANAN, D. D., JUN.

Kaffir beadwork

Broderie en grains de verre par les Kaffirs

Kaffer-Perlenarbeit

Conterie Caffre

5 BUCHANAN, D. D., JUN.

Whips of rhinoceros horn

Fouets de corne de rhinocéros

Peitschen aus Rhinoceroshorn

Fruste di corno di rinoceronte

6 BAKER, W. G.

Nuts of vegetable ivory used for Kaffir snuff-boxes

Ivoire végétal employé pour tabatières des Kaffres

Nüsse aus vegetabilischem Elfenbein für Schnupftabaksdosen der Kaffern

Noci di avorio vegetabile usate per tabacchiere Caffre

7 NATAL COMMISSIONERS

Pipe-bowls of steatite from beyond the Berg
Fourneaux de pipe de steatite tirée d'au delà du Berg

Pfeifenköpfe aus Speckstein von der andern Seite des Berges

Focolari di pipe di steatite d'oltre il Berg

Group IV.—CLASS XXXV.

Hats, Rings, and Head-dresses.

Chapeaux, Anneaux, et Coiffures.

Hüte, Ringe und Kopfschmuck.

Cappelli, Cerchietti e Acconciature da Testa.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 BERNING, F. S.; NATAL COMMISSIONERS

Hats of Kaffir manufacture

Chapeaux fabriqués par les indigènes

Hüte von Kaffern gemacht

Cappelli di manifattura Caffra

2 NATAL COMMISSIONERS; WALMSLEY, J.

Kaffir head-rings (Isicoco)

Anneaux portés sur la tête (Isicoco)

Kaffer-Kopfringe (Isicoco)

Cerchietti da testa Caffri (Isicoco)

3 SINCLAIR, C. R.; SANDERSON, J.; BUCHANAN, D. D., JUN.; NATAL COMMISSIONERS

Metal arm rings, worn by natives

Bracelets de métal portés par les indigènes

Metallene Armspangen, getragen von den Eingebornen

Braccioletti di metallo portati dagli indigeni

4 NATAL COMMISSIONERS

Native snuff-boxes and snuff-spoons

Tabatières et cuillers dont se servent les indigènes

Schnupftabaksdosen und Schnupflöffel der Eingebornen

Tabacchiere e cucchiaini da tabacco indigeni

CLASS XXXVII.

Weapons and Accessory Objects.

Armes et Objets Accessoires.

Waffen und dahin gehörige Gegenstände.

Armi e Accessori.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 GRIFFIN, C.

Bushman's bows and arrows

Arcs et flèches de Bushman

Pfeile und Bogen der Bushmänner

Archì e dardi degli uomini di macchia

2 WALMSLEY, J.; NATAL COMMISSIONERS

Native javelins (assegaïs)

Javelines des indigènes (assegaïs)

Wurfspeer (Assegaïs) der Eingebornen

Zagaglie indigene (assegaïs)

3 BUCHANAN, D. D., JUN.; NATAL COMMISSIONERS

Native shields

Boucliers des indigènes

Schilde der Eingebornen

Scudi indigeni

4 BUCHANAN, D. D., JUN.

Basuto battle-axe; native knob-kerrie (club)
Hache d'armes Basuto; massue d'indigène
 (knob-kerrie)
 Basuto-Schlachtext; Keule (Knobkerrie) der
 Eingebornen
Azza dei Basuto; knob-kerrie indigena (clava
nodosa)

5 NATAL COMMISSIONERS

Native walking sticks—*Cannes des indigènes*
 Spazierstock der Eingebornen—*Mazze indigene*

CLASS XXXVIII.

Equipment of Pioneer Colonists.
Équipement des Colons Pionniers.
 Ausrüstung der Pionier-Colonisten.
Equipaggiamento di Pionieri Colo-
nizzatori.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 CAMPBELL, H.

Model of South African wagon
Modèle de chariot de l'Afrique du Sud
 Modell eines Südafrikanischen Wagens
Modello di carriaggio Sud Africano

2 NATAL COMMISSIONERS

Reims, or straps, in common use; Thong-
 whipcord
Courroies ordinaires; cordes à fouet
 Zügel oder Riemen in gewöhnlichem Ge-
 brauch; Peitschenschnur
Redini, o coregge in uso ordinario; corda di
frusta in cuoio

3 PATERSON, P., Colonial Engineer

Model of waggon-wheel
Modèle de roue de chariot
 Modell eines Wagenrades
Modello di ruota di carro

4 PATERSON, P., Colonial Engineer

Model of ox-yoke
Modèle d'attelage de bœufs
 Modell eines Ochsenjoches
Modello di giogo da bovi

5 NATAL COMMISSIONERS

Models of apparatus used in yoking oxen
Modèle d'appareils pour atteler les bœufs
 Modell des Geschirres zum Anspannen der
 Ochsen
Modelli di apparati usati nell'aggiungere i bovi

GROUP V.—CLASS XL.

Rocks, Ores, Earths, and Clay.
Roches, Minerais, Argiles, etc.
 Gesteine, Erze, Erden und Thon.
Rocce, Minerali, Terre, e Argille.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 OSBORNE, M.; PATERSON, C., Colonial En-
gineer

Natal coal—*Houille de la colonie*
 Natakohle—*Carbon fossile di Natal*

2 BAZELEY, F.; BUCHANAN, D. D., JUN.; ES-
COMBE; ADLER J.; SUTHERLAND, P.; STAIN-
BANK, H. E.; SANDERSON, J.

Steatite, rough and polished
Stéatite brute et polie
 Speckstein, roh und polirt
Steatite grezzo e lustrato

3 SUTHERLAND, P., Surveyor-General

Metamorphic limestone (statuary marble)
Pierre calcaire métamorphique (marbre sta-
tuaire)
 Urkalkstein (Statuen-Marmor)
Calcarea metamorfica (marmo statuario)

4 ROSS, J. G.; SINCLAIR, C. R.

Iron ore—*Minerai de fer*
 Eisenstufe—*Minerale di ferro*

5 SUTHERLAND, P., Surveyor-General

Copper rod and casting (Kaffir manufacture)
Barre de cuivre et fonte (manufacture du pays)
 Kupfer in Stäben und gegossen (Production
 der Kaffern)
Rame in barra e fuso (manifattura Caffra)

6 SUTHERLAND, P., Surveyor-General

Carbonate of copper—*Carbonate de cuivre*
 Kohlensaures Kupfer—*Carbonato di rame*

7 BARNES, A. M.; COOKE, J. M.

Lead from the Transvaal
Plomb tiré du Transvaal
 Blei von Transvaal—*Piombo dal Transvaal*

8 WILDER, H. A.

River quartz—*Quartz de rivière*
 Flussquarz—*Quarzo del fiume*

9 MIDDLETON, W. H.

Clay—*Argile*—Thon—*Argilla*

10 SUTHERLAND, P.; SANDERSON, J.; VAUSE, R.

Fossil wood—*Bois fossile*
 Versteintes Holz—*Legno fossile*

11 SMITH, JESSE

Granite—*Granit*—Granite—*Granito*

12 EASTWOOD, G. T.

Variegated stone—*Pierre jaspée*
 Bunter Stein—*Pietra variegata*

13 SMITH, JESSE

Shale-polishing, building and flooring
Schiste poli pour constructions et planchers
 Polierschiefer, Dachschiefer und Platten
Lustro, costruzione e pavimento di schisto

14 TARBOTON, D. H.

Millstone grit—*Grès à meule*
 Millstone Grit oder Kohlensandstein
Tritello di mola

15 SIXTEEN CONTRIBUTORS

24 varieties of fertile soil
24 spécimens de terres fécondes
 24 Varietäten von fruchtbarem Erdboden
24 varietà di terreni fertili

CLASS XLI.

Different kinds of Trees.

Bois Divers.

Verschiedene Holzarten.

Differenti Specie d' Alberi.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 SHAW BROTHERS

Native wood, 23 kinds

Bois indigènes, 23 espèces

Einheimisches Holz, 23 Arten

Legni indigeni, 23 specie

2 PATERSON, P., Colonial Engineer

Native wood, 18 kinds

Bois indigènes, 18 espèces

Einheimisches Holz, 18 Arten

Legni indigeni, 18 specie

3 RUSSEL & Co.

Native wood—*Bois indigène*Einheimisches Holz—*Legni indigeni*

4 LANDSBERG, E.; HOHL, —; MCKEN, J.;

CATO, G. C.; VAUSE, R.; BAKER, W. G.; METH-

LEY, J. E.; GLEGG, H. R.; GREEN, L. H.,

Amanzimtote Mission Station

Native wood, sundry varieties

Bois indigènes, plusieurs espèces

Einheimisches Holz, verschiedene Arten

Legni indigeni, parecchie varietà

CLASS XLII.

Animals, Birds' Eggs, Skins, Horns.

*Animaux, Œufs d'Oiseaux, Peaux,**Cornes.*

Thiere, Vögeleier, Häute, Hörner.

Animali, Uova di Uccelli, Pelli, Corna.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 DAVIS, W.

Lion skins, from beyond the border

Peaux de lions d'au-delà de la frontière

Löwenhäute von der anderen Seite der

Grenze

Pelli di leone, d' oltre i confini

2 BAKER, W. G.

Antelope skins, koodoo, waterbock, gemsbock

Peaux d'antilopes, de koodoo, de waterbock, de gemsbock

Antelopenhäute, Koodoo-, Wasser- und Gems-

bock

*Pelli d' antelope, di koodoo, waterbock, gems-**bock*

3 BAKER, W. G.

Fleece of Angora lamb

Toison d'agneau Angora

Fliess (Schurwolle) eines Angora-Lammes

Vello di d' angello Angora

4 ESCOMBE, ADLER J.; BENINGFIELD, S.; NATAL COMMISSIONERS

Sea-cow skulls and tusks

Crânes et défenses de vaches marines (morse)

Schädel und Haizähne einer Seekuh

Crani e zanne di vacca marina

5 EASTWOOD, G. F.; SANDERSON, J.; NATAL COMMISSIONERS

Wild boar skulls and tusks

Crânes et défenses de sangliers

Schädel und Fänge vom Eber

Crani e zanne di cignale

6 BAKER, W. G.; BUCHANAN, D. D.; NATAL COMMISSIONERS

Rhinoceros horns, from beyond the border

Cornes de rhinocéros d'au-delà de la frontière

Rhinoceroshorn, von der andern Seite der

Grenze

Corna di rinoceronte d' oltre i confini

7 FELLOWES, COL.; BAKER, W. G.; NATAL COMMISSIONERS

Buffalo horns—*Cornes de buffle*Buffalo-Hörner—*Corna di bufalo*

8 BAKER, W. G.; FELLOWES, COL.; HENDERSON, J.; MANN, R. J., M.D.; NATAL COMMISSIONERS

Koodoo horns—*Cornes de koodoo*Koodoo-Hörner—*Corna di gazella koodoo*

9 BAKER, W. G.

Horns of gnu—*Cornes de gnu*Gnu-Hörner—*Corna di ippocervo gnu*

10 BAKER, W. G.

Gemsbock horns—*Cornes de gemsbock*Gemsbock-Hörner—*Corna digemsbock*

11 HENDERSON, J.; BAKER, W. G.

Waterbock horns, Leeche

Cornes de waterbock, Leeche

Wasserbock-Hörner

Corna di waterbock, Leeche

12 HENDERSON, J.

Zwarte-wit-pens-bock horns

Cornes de Zwarte-wit-pens-bock

Zwarte-wit-pens-Bock-Hörner

Corna di Zwarte-wit-pens-bock

13 HENDERSON J.; NATAL COMMISSIONERS

Elands' horns

Cornes d'élans

Elands-Hörner

Corna di buselafu eland

14 BAKER, W. G.

Hantebeeste horns

Cornes de Hantebeeste

Hantebeeste-Hörner

Corna di Hantebeeste

15 BAKER, W. G.

Rooi-bock horns

Cornes de Rooi-bock

Rooi-Bock-Hörner

Corna di Rooi-bock

16 BAKER, W. G.

Springbock horns—*Cornes de spring-bock*

Springbock-Hörner

Corna di gazella springbock

17 NATAL COMMISSIONERS

Steinbock horns
Cornes de steinbock
 Steinbock-Hörner
Corna di stambecco

18 NATAL COMMISSIONERS

Rietbock horns
Cornes de rietbock
 Rietbock-Hörner
Corna di rietbock

19 NATAL COMMISSIONERS; MANN, R. J., M.D.

Antelope horns, various
Cornes d'antilopes, diverses
 Antelopen-Hörner, verschiedene
Corna di antelope varie

20 NATAL COMMISSIONERS

Skulls and bones of native animals
Crânes et os d'animaux naturels
 Schädel und Knochen einheimischer Thiere
Crani e ossa di animali indigeni

21 BAKER, W. G.

Leg bones of giraffe, head of bustard
Os des pattes de giraffe, tête d'outarde
 Beinknochen der Giraffe, Kopf eines Trappen
Tibie di giraffa, testa di ottarda

22 BAKER, W. G.

Ostrich feathers
Plumes d'autruche
 Straussfedern
Penne di struzzo

23 MANN, R. J., M.D., Superintendent of Education

Skins of smaller native birds
Peaux des petits oiseaux naturels
 Häute von kleineren einheimischen Vögeln
Pelli di minori uccelli indigeni

24 MIDDLETON, H. C. & S.; GUEINZIUS, W.

Natal insects
Insectes de la colonie
 Insecten von Natal
Insetti di Natal

25 GUEINZIUS, W.; MCKEN, J.; HAGENIUS, H.

Natal shells
Coquilles de la colonie
 Muscheln von Natal
Conchiglie di Natal

26 CLARENCE, R.

Nest of white ant
Nid de termite
 Nest von weissen Ameisen
Nido di formica bianca

27 JAMES, T. P.; CLARENCE, R.

Skins of snake and galago
Peaux de serpent et de galago
 Häute von einer Schlange und eines Galago
Pelli di serpe e di galago

CLASS XLIII.

Cotton, Flax, Hemp, Wool, Silk Fibres;
 Tobacco, Oils, and Tanning Substances.

Fibres de Coton, Lin, Chanvre, Laine et Soie. Tabac, Huiles et Matières Tannantes.

Baumwolle, Flachs, Hanf, Wolle, Seidenfasern; Tabak, Oel und Gerbstoffen.

Cotone, Lino, Canapa, Lana, Fibre Seriche; Tabacco, Oli, e Sostanze tannine.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 CROZIER, G. N. H.; SMITH, J.; BENNINGFIELD, S.; BAKER, W. G.; NORTH, G.; COTTAM, J. B.; FANNIN, —; LEATHERS, —; PENISTON, —; COOKE, J. M.

Samples of cotton
Spécimens de coton
 Baumwollenproben
Campioni di cotone

2 BENINGFIELD, E.; UMZINTO COMPANY; PENISTON, M.

Silk in cocoons and skeins
Soie en écheveaux, et cocons
 Seide in Cocons und Strängen
Seta in bozzoli e matasse

3 BAKER, W. G.; BAYNES, W.; BARNES, R. J.; TROTTER, G.; NORTON & KNOX; WINDHAM, A. S.

Samples of wool
Spécimens de laine
 Proben von Wolle
Campioni di lana

4 BAKER, W. G.

Angora hair
Poil d'angora
 Angora-Haar
Pelo d'angora

5 METHLEY, J. E.; HUMBERT, C., & Co.; FENTON, W. H.

Flax—*Lin*
 Flachs—*Lino*

6 FENTON, W. H.; MIDDLETON, W. H.; JACKSON, G.; GORDON, —; BENINGFIELD, S.; EVANS, A. W.; COOKE, J. M.; ADDISON, —; LAMPORT, T. W.

Native fibres
Fibres indigènes
 Einheimische Fasern
Fibre indigene

7 HARFORD, CAPTAIN M. L. C.; MANNING, C.; GLINISTER, J. E.; NATAL COMMISSIONERS

Tobacco—*Tabac*
 Tabak—*Tabacco*

8 MIDDLETON, W. H.; GLINISTER, J. E.; PHILLIPS, HON. JUSTICE
Cigars
Cigares
Cigarren
Sigari

9 MIDDLETON, W. H.; GLINISTER, J. E.
Snuff
Tabac à priser
Schnupftabak
Tabacco

10 CAMPBELL, W.; KINGHURST, J.; SUTHERLAND, J., M.D.
Oil seeds
Graines oléagineuses
Oelsamen
Semi oleosi

11 MOSSOP, J.; NATAL COMMISSIONERS; MIDDLETON, W. H.; HILL & LONG
Astringent barks and roots for tanning
Ecorces et racines astringentes pour le tannage
Abstringirende Rinden und Wurzeln zum Gerben
Scorze astringenti, e radici per conciare

12 MCKEN, J.
Vacoa leaves and thatching grass
Feuilles de vacoa et de typha pour toitures
Vacoa-Blätter und Gras zum Dachdecken
Foglie di vacoa e paglia per tettoie

13 MCKEN, J.
Native broom (wild date)
Genêt indigène (dattier sauvage)
Einheimischer Besen (wilde Datteln)
Scopa indigena (dattero selvatico)

14 MOSSOP, J.
Berg-bass (substitute for sumach)
Berg-bass (remplace le sumac)
Berg-bass (Ersatzmittel für Sumach)
Berg-bass (sostituto pel sommacco)

CLASS XLIV.

Chemical Products (Medicines).
Produits Chimiques (Médicaments).
Chemische Producte (Arzneien).
Prodotti Chimici (Medicine).

(For detailed classification, see p. xx.)
(Voir le système de classification, p. xx.)
(Für detaillirte Classification, siehe Seite xx.)
(Vedasi il sistema di classificazione, p. xx.)

1 FENTON, W. H.; COOKE, J. M.
Senna
Séné
Senesplanze
Sena

2 FENTON, W. H.
Aloes
Aloès
Aloe
Aloe

3 FENTON, W. H.; COOKE, J. M.
Ipecacuanha—*Ipecacuana*
Ipecacuanha—*Ipecacuana*

4 WILSON, H. K.
Raw alum—*Alun brut*
Rohr Alaun—*Alume grezzo*

5 BRICKHILL, J.; FENTON, W. H.; LANDSBERG, E.; MCKEN, J.; SANDERSON, J.
Substances used as medicine
Matières premières de la pharmacie
Substanzen, als Heilmittel gebraucht
Sostanze usate come medicine

6 BOAST, MISS
Gum arabic—*Gomme arabique*
Gummi Arabicum—*Gomma arabica*

7 BROWN, J.
Natal soap
Savon fabriqué dans la colonie
Seife von Natal
Sapone di Natal

CLASS XLVI.

Dressed Skins and Furs.
Peaux et Fourrures Apprêtées.
Präparirte Häute und Pelze.
Pelli conciate e Pellicce

(For detailed classification, see p. xxi.)
(Voir le système de classification, p. xxi.)
(Für detaillirte Classification, siehe Seite xxi.)
(Vedasi il sistema di classificazione, p. xxi.)

1 MOSSOP, J.
Buckskin leather
Peau de daim
Bockleder
Cuoio di pelle di daino

2 MOSSOP, J.
Dressed sheepskin
Peau de mouton apprêtée
Dressirte Schaffelle
Pelle d' aguello conciate

MOSSOP, J.; MIDDLETON, W. H.
Sole leather
Cuir pour semelles
Sohlenleder
Cuoio da sole

4 NATAL COMMISSIONERS
Kaross of silver jackal skin
Kaross faite de la peau de chacal
Decke aus Silberschakalfell
Karass di pelle di sciacallo argentino

5 NATAL COMMISSIONERS
Lion and lioness skin
Peaux de lion et de lionne
Fell eines Löwen und einer Löwin
Pelli di leone e leonessa

6 DICKINSON, C. H.
Kaross of leopard skin
Kaross faite de peau de léopard
Decke aus Leopardfell
Kaross di pelle di leopardo

7 BUCHANAN, D. D., JUN.

Kaross of spotted cat skin

Kaross faite de peau de chat tigré

Decke aus geflecktem Katzenfell

Kaross di pelle di gatto maculato

8 AYRES, J.

Kaross of grey cat

Kaross faite de peau de chat gris

Decke aus grauem Katzenfell

Kaross di atto griggoi

9 BUCHANAN, D. D., JUN.

Kaross of leopard skin

Kaross faite de peau de léopard

Decke aus Leopardsfell

Kaross di pelle di leopardo

10 AYRES, J.

Kaross of lynx skin—*Kaross faite de peau de lynx*Decke aus Luchsfell—*Kaross di pelle di lince*

11 AYRES, J.

Kaross of jackall skin

Kaross faite de peau de chacal

Decke aus Schakalfell

Kaross di pelle di sciacallo

GROUP VI.—CLASS XLVIII.

Plans of Culture.

Plans de Culture.

Culturpläne.

Piani di Cultura.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 PENISTON, W. M.

Plans of culture—*Plans de culture*Culturpläne—*Piani di cultura*

CLASS LXII.

Harness.

Bourrellerie.

Pferdeggeschirr.

Fornimenti da Cavalli.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 PASSMORE, —

Set of colonial harness

Harnais dont on se sert dans la colonie

Colonial-Pferdeggeschirr

Fornimenti da cavalli completi della colonia

2 NATAL COMMISSIONERS

Shambok of sea-cow hide

Shambok fait de peau de vache marine

Shambock von Seekuhhaut

Shambok di pelle di vacca marina

CLASS LXV.

Building Stone, Lime, Tiles, &c.

Matériaux de Construction, etc.

Bausteine, Kalkstein, Ziegel etc.

Pietre da Costruzione, Calce, Tegole, ecc.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 TANNER, R. B.; SMITH, JESSE; SUTHERLAND, P., M.D.

Building sandstones

Pierres de construction

Bausandsteine

Arenarie da costruzione

2 TANNER, R. B.

Whinstone—*Whinstone ou trapp*Basalt—*Basalto*

3 SMITH, JESSE

Mooi River limestone

Pierre calcaire de la Mooi (rivière)

Kalkstein vom Mooi-River

Calcareo del fiume Mooi

4 WATSON & SONS; VAUSE, R.; COOKE, J. M.; SUTHERLAND, P., M.D.

Lime—*Chaux*Kalkstein—*Calce*

5 VAUSE, R.; BRUNTON & TUNMER

Coast lime; coral and shells

Chaux tirée de la côte; corail et coquillages

Küsten-Kalkstein; Corallen und Muscheln

Calce della costa; corallo e conchiglie

6 WATSON & SONS; PATERSON, P., Colonial Engineer

Bricks—*Briques*Backsteine—*Mattoni*

7 WATSON & SONS; CHATTERTON. —

Tiles, ornamental and plain

Tuiles d'ornement et unies

Ziegel, verziert und einfach

Pianelle semplici e d'ornato

GROUP VII.—CLASS LXVII.

Wheat, Rye, Barley, Rice, &c.

Blé, Seigle, Orge, Riz, etc.

Weizen, Korn, Gerste, Reis etc.

Frumento, Segale, Orzo, Riso, ecc.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 GOOD, A.; VARTY, T.; BARNES, R. J.; KIRBY, J.; LOTTER, C. P.; ROBSON, S. S.; ALISON J.; KING, G.; HAMILTON, —; LANDSBERG, E

Wheat

Blé

Weizen

Frumento

- 2 BOND, THOMAS; TARBOTON, D. H.; HENDERSON, —; SCOTT, J.
Flour and meal
Farines
Feines und gröberes Mehl
Fiore e farina
- 3 KING, J.; HAMILTON, CAPTAIN
Oats
Avoine
Hafer
Avena
- 4 BAKER, W. G.; EVANS, A. W.; ALISON, J.; EVANS, A. W.
Barley
Orge
Gerste
Orzo
- 5 KING, J.
Wheat, barley
Blé, orge
Weizen, Gerste
Fumento, orzo
- 6 BAKER, W. G.
Rye
Seigle
Korn
Segale
- 7 BAKER, W. G.
Buckwheat
Sarrasin
Buchweizen
Saggina
- 8 BAKER, W. G.
Peas
Pois
Erbsen
Piselli
- 9 BAKER, W. G.; PENISTON, W. M.
Beans
Fèves
Bohnen
Fave
- 10 ALISON, J.; BAKER, W. G.
Mealie cobs (Indian corn)
Balles farineuses (maïs)
Mealie cobs (Kolben türkischen Weizens)
Mealie cobs (varietà di grano saraceno)
- 11 OSBORN, M.; ALISON, J.; BOND, T.; BAYNES, R.; BAKER, W. G.
Indian corn (maize, mealies)
Mäis (farines)
Türkischer Weizen (maize, mealies)
Granturco (maize, mealies)
- 12 BOND, T.; TARBOTON, D. H.
Indian corn meal (mealie meal)
Farine de maïs (mealie meal)
Türkisches Weizenmehl (mealie meal)
Farina di granturco (farina di mealie)
- 13 BOND, T.; OSBORN, M.; BAKER, W. G.; WINDHAM, A. S.
Kaffir corn
Blé Kaffir
Kaffer-Korn
Grano Caffro
- 14 NATAL COMMISSIONERS
Millet
Millet
Hirse
Miglio
- 15 PATERSON, P., Colonial Engineer; GODDEN, R.; CROWDER, S., JUN.; WOOD, J. M.; STAINBANK, H. E.; BUTTERY, R.; DAVIDSON, J.; LYALL, GEO.
Arrowroot
Arrowroot
Arrowroot
Arrorut
- 16 RUSSEL, G.
Tapioca
Tapioka
Tapioca
Tapioca
- 17 RUSSEL, G.
Varieties of flour
Farines diverses
Varietäten von Mehl
Varietà di farine

CLASS LXX.

Preserved Meat.
Vianes Conservées.
Conservirtes Fleisch.
Carni conservate.

(For detailed classification, see p. xxvi.)
(Voir le système de classification, p. xxvi.)
(Für detaillirte Classification, siehe Seite xxvi.)
(Vedasi il sistema di classificazione, p. xxvi.)

- 1 BARNES, R. J.; BROWN, G., & Co.; BAKER, W. G.
Preserved and dried beef
Viande de boeuf conservée
Conservirtes und getrocknetes Rindfleisch
Bove conservato e seccato
- 2 BARNES, R. J.
Preserved pork
Viande de porc conservée
Conservirtes Schweinefleisch
Porco conservato
- 3 BAKER, W. G.
Sun-dried game (Biltong)
Gibier séché au soleil (Biltong)
In der Sonne getrocknetes Wildpret (Biltong)
Caccia seccata al sole (Biltong)

CLASS LXXI.

Vegetables.

Légumes.

Gemüse.

Ortaggi.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 RUSSELL, G.

Desiccated sweet potatoes

Patates douces séchées

Entwässerte süsse Kartoffeln

Patate dolci essiccate

2 RUSSELL, G.

Chillies—*Poivre de Guinée*Chillies—*Peperoni rossi*

CLASS LXXII.

Condiments and Stimulants; Sugar, &c.

Condiments et Stimulants; Sucres.

Gewürze und Reizmittel; Zucker etc.

Condimenti e Stimolanti; Zuccherò, ecc.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LAMPORT, E. P.

24 samples illustrating sugar manufacture

24 spécimens de la fabrication du sucre

24 Stücke zur Erklärung der Zuckerfabrication

24 campioni illustrativi della fabbricazione dello zucchero

2 WILKINSON, A.; CLARENCE, R.; DICKINSON,

F. J.; CAMPBELL, W.; JOYNER, W.

Sugar—*Sucres*Zucker—*Zuccherò*

3 WIRSING & REYNOLDS

Vacuum-pan sugar

Sucres cuits dans des chaudières à vide

Zucker in der Vacuumpfanne abgedampft

Caldaia-a-vacuo da zucchero

4 A KAFFIR NATIVE, Nembulo

Sugar manufactured by himself

Sucre de sa propre fabrication

Zucker eigner Fabrication

Zuccherò di sua fabbricazione

5 CAMPBELL, W.; BROWN, T.

Molasses

Mélasse

Molasse

Melazzo

6 BOND, T.

Kaffir sugar seed (Imfi)

Graines saccharines (Imfi)

Kaffer-Zuckerrohrsamén (Imfi)

Seme di zucchero Caffro (Imfi)

7 PATERSON, P., Colonial Engineer; RUSSELL, G.; STEELE, C.; CROWDER, T.

Cayenne pepper

Poivre de Cayenne

Cayenne-Pfeffer

Pepe di Caienna

8 JACKSON, G.; MCKEN, M. J.

Tea

Thé

Thee

Tè

9 MCKEN, M. J.

Maté, Paraguay tea

Maté, thé du Paraguay

Maté, Paragay-Thee

Maté, tè del Paraguai

10 CROZIER, H.; STAINBANK, H. E.; POTTER, TOWNSEND J.; LISTER, W.; GERVAN, —; MIDDLETON, W. H.

Coffee

Café

Kaffee

Caffè

11 POTTER, TOWNSEND J.

Samples illustrating coffee manufacture

Spécimens de la fabrication du café

Proben zur Erklärung der Kaffeebohnen-Zubereitung

Campioni illustrativi della preparazione del caffè

13 SHORTT, P. B.; FENTON, J. P.; STAINBANK H. E.

Preserved fruits

Fruits conservés

Eingemachte Früchte

Frutti in conserva

14 COOKE, J. M.

Vinegar

Vinaigre

Essig

Aceto

15 SHORTT, P. B.

Essences

Essences

Essenzen

Essenze

16 SHORTT, P. B.; MOIR, R. J.

Curry powder

Curry powder

Curry-Pulver

Polvere curry

17 SHORTT, P. B.

Amatungula syrup

Sirop d'Amatungula

Amatungula-Syrup

Siroppo di Amatungula

CLASS LXXIII.

Fermented Drinks.
Boissons Fermentées.
 Geistige Getränke.
Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification*, p. xxvi.)

(Für detaillierte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione*, p. xxvi.)

1 PEEL, W. A.

Colonial ale
Ale de la colonie
 Colonial-Bier
Ale della colonia

2 WILKINSON, A. ; COOKE, J. M. ; BROWN, T. ;

REYNOLDS, T.
 Spirits
Spiritueux
 Spirituöse Getränke
Spiriti

3 COOKE, J. M.

Punch
Punch
 Punsch
Ponce

4 JAMESON, R. ; WILKINSON, A.

Pine-apple wine
Vin d'ananas
 Ananaswein
Vino di ananasso

GROUP IX.—CLASS LXXXIV.

Flowers and Ornamental Plants.

Fleurs et Plantes d'Ornement.

Blumen und Zierpflanzen.

Fiori e Piante d'Ornamento.

(For detailed classification, see p. xxviii.)

(*Voir le système de classification*, p. xxviii.)

(Für detaillierte Classification, siehe Seite xxviii.)

(*Vedasi il sistema di classificazione*, p. xxviii.)

1 ABRAHAM, MRS.

Prepared grasses
Graminées préparées
 Präparirte Gräser
Erbe preparate

2 ANDERSON, MISS

Specimens of native ferns
Spécimens de fougères indigènes
 Exemplare einheimischer Farrenkräuter
Campioni di felci indigene

NEWFOUNDLAND.

GROUP II.—CLASS IX.

Photographic Proofs, &c.
Épreuves Photographiques, etc.
 Photographien etc.
Prove Fotografiche, ecc.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 LOCAL COMMISSIONERS

Photographs

Épreuves photographiques

Photographien

Fotografie

2 WYATT, F. J.

Photographs—*Épreuves photographiques*

Photographien—*Fotografie*

3 CHISHOLM

Photographs—*Épreuves photographiques*

Photographien—*Fotografie*

GROUP V.—CLASS XL.

Mining and Metallurgy.

*Produits de l'Exploitation des Mines et
 de la Métallurgie.*

Berg- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 GEOLOGICAL SURVEY

Mineral products of various districts

Produits minéraux de divers districts

Mineralische Producte aus verschiedenen

Districten

Prodotti minerali di vari distretti

2 WYATT, F. J., Greenspond

Granite

Granit

Granit—*Granito*

3 COHN, La Manche Mine, Placentia Bay

Gelina—*Gelina*

Gelina—*Gelina*

4 BENNETT, C. F., Terra Nova Mine, Little Bay
 Serpentine, white and variegated marble,
 copper pyrites
*Serpentine, marbre blanc et jaspé, pyrites de
 cuivre*
 Serpentin, weisser und bunter Marmor, Ku-
 pferkies
*Serpentina bianca e marmo variegato, piriti di
 rame*

5 MACKIN, R. A., & CLEARY, CAPT. P., Entrance
 to Humber River
 Variegated marble
Marbre jaspé
 Bunter Marmor
Marmo variegato

6 HARVEY, W., Belle Isle
 Fossil and cast
Fossile et moule
 Versteinerung und Abdruck
Fossile e suo getto

7 BOYD, WILLIAM, Indian Brook, St. George's
 Bay
 Coal
Houille
 Kohle
Carbon fossil

8 LOCAL COMMISSIONERS, Random Sound, Tri-
 nity Bay
 Roofing slates
Ardoises pour couvertures
 Dachschiefer
Ardesie da tetti

9 LANGMEAD, G.

Galena

Galène

Galena

Galena

10 BENNETT, C. F., & Co.

Bituminous shale, native petroleum

Schiste bitumineux, pétrole naturel

Bituminöser Schiefer, natürliches Steinöl

Schisto bituminoso, petroleo indigeno

11 NEWFOUNDLAND PEAT COMPANY

Peat fuel

Tourbes

Torf

Torba

12 ST. JOHN'S SOAP WORKS

Oil soap

Savon d'huile

Oelseife

Sapone d'olio

CLASS XLII.

Products of Shooting, Fishing, of the Earth, &c.

Produits de la Chasse, de la Pêche, des Cueillettes, etc.

Producte der Jagd, des Fischfangs, der Erde etc.

Prodotti della Caccia, della Pesca, della Terra, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 ROBINSON, J. R.

Wools, white and dyed
Laines blanchies et teintées
Wolle, weiss und gefärbt
Lane bianche e tinte

2 ATHENÆUM

Square-flipper seal, stuffed; Greenland seals, patch-fox, ermines, birds, &c.

Phoque à nageoire carrée, empaillé; phoques du Grœnland; renard, hermines, oiseaux, etc.

Square-flipper Seal (Seehund), ausgestopft; Grönländische Seehunde, Patch-fox (Fuchs), Hermine, Vögel etc.

Foca a matatoia quadrata, impagliata; foche di Grœlandia, volpe-pezzata, ermellini, uccelli, ecc.

3 COMMISSIONERS

Stuffed fish, birds, &c.; dried fish; beavers and Alpine hares; cod-liver oil, of the manufacture of C. Fox

Poissons, oiseaux, etc., empaillés; poissons séchés; castors et lièvres des Alpes; huile de foie de morue, préparée par C. Fox

Ausgestopfte Fische, Vögel etc.; getrockneter Fisch, Biber und Alpen-Hasen, Leberthran, fabricirt von C. Fox

Pesci impagliati, uccelli, ecc., pesci secchi, castori e lepri Alpine; olio di fegato di merluzzo della fabbrica di C. Fox

4 STABB, DR.

Fish, in spirits; squash berries; partridge berries; roots, leaves, and flowers of the pitcher plant; Labrador tea; capillaire berry plant

Poissons conservés dans l'alcool; baies diverses; racines, feuilles et fleurs de la pitcher-plant; thé du Labrador; capillaire

Fisch, in Spiritus; Squash und Partridge-Beeren; Wurzeln, Blätter und Blumen der Becherpflanze; Labradortea; Capillaire-Beerenpflanze

Pesci in alcool; semi di zucca, bacche d'occhio di pernice; radici, foglie e fiori di pianta idrocotile; tè di Labrador; pianta a coccole capillare

5 WYATT, F. J.

Capillaire jam; seal, cod-liver and whale oil, &c.; fish, in spirits; salted fish

Confiture de capillaire; huile de phoque, de foie de morue, de baleine, etc.; poissons conservés dans l'alcool; poissons salés

Capillaire-Confitur; Seehunds-, Leber- und Wallfischthran etc.; Fisch, in Spiritus; gesalzener Fisch

Siroppo di capelvenere; olio di foca, di fegato di merluzzo e di balena, ecc.; pesci in alcool; pesci salati

6 HOWLEY, JAMES

Juniper berries, turpentine
Graines de genièvre, térébenthine
Wachholderbeeren, Terbenthin
Cocole di ginepro, trementina

7 O'BRIEN, MRS. C.

Marshberry jam—*Confiture de marshberry*
Confitur aus Moorbeeren—*Siroppo d'altea*

8 JOB BROTHERS & Co.

Cod-liver oil—*Huile de foie de morue*
Leberthran—*Olio di fegato di merluzzo*

9 WARRINGTON, JOHN

Cod-liver oil—*Huile de foie de morue*
Leberthran—*Olio di fegato di merluzzo*

10 CHAFE, DAVID, Petty Harbour

Cod-liver oil—*Huile de foie de morue*
Leberthran—*Olio di fegato di merluzzo*

11 OKE, R.

Seal oil—*Huile de phoque*
Seehundsthran—*Olio di foca*

12 DEARIN, J. J.

Cod-liver oil—*Huile de foie de morue*
Leberthran—*Olio di fegato di merluzzo*

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 COMMISSIONERS

Seal skin, loo skin bag, cosaque made from intestines of seals, fishermen's rackets, marten and fox skins, esquimaux models in ivory, tusk of walrus

Peaux de phoque, sac de peaux de loo, cosaque faite des intestins de phoque, raquettes de pêcheurs, peaux de martre et de renard, modèles en ivoire par les Esquimaux, défense de morse

Seehundsfell, Loo-Hautsack, Cosaque von
Seehundsgedärmen, Fischer-Rackets, Marder-
und Fuchsbälge, Elfenbeinmodelle von Es-
quimos, Stosszähne vom Wallross

*Pelli di foca, sacco di pelle di loo, cosacca fatta
di intestini di foca, galosce a racchetta da
pescatori, pelli di martora e di volpe, modelli
esquimaux in avorio, zanne di morse*

2 WYATT, F. J.

Skins, Indian snow rackets

Peaux, raquettes de neige, indiennes

Häute, Indianische Schneerackets

Pelli, galosce racchette Indiane

3 MURRAY, ALEX.

Stag's head and horns

Tête et bois de cerf

Kopf und Hörner eines Hirsches

Testa e corna di cervo

GROUP VI.—CLASS XLIX.

Fishing Tackle, &c.

Appareils de Pêche, etc.

Fischgeräthe etc.

Attrazzi Pescarecci, ecc.

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

1 BENEVOLENT IRISH SOCIETY

Nets

Filets

Netze

Reti

2 COMMISSIONERS

Fishing lines, sealing guns, pockers and ice
saw

*Lignes à pêche, fusils pour la chasse aux
phoques, brises-glace, scie à glace*

Angelschnur, Seehund-Flinten, Pockers
(Hängen) und Eissägen

*Lense, fucili da foche, spazzetto e sega da
ghiaccio*

3 NEYLE, RICHARD

Fish-hooks

Hameçons

Angelhaken

Ami

4 DWYER, MR.

Native flax, and twine made therefrom

Lin indigène, et ficelle fabriquée avec ce lin

Einheimischer Flachs und Bindfaden daraus

Lino indigeno, e spago di quello

CLASS LXVI.

Navigation, &c.

Matériel de la Navigation, etc.

Schiffahrt etc.

Nautica, ecc.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 COMMISSIONERS

Models of boats, model of culling board, fish
barrow and stands, weighing machine, fish
and oil casks

*Modèles de bateaux, etc.; civière à poissons,
balance à bascule, barils pour poissons et pour
huile*

Modelle von Böten, Modell eines Bretes zum
Ausnehmen der Gedärme, Fischbahre und
Bute, Wage, Fisch- und Oelfässer

*Modelli di barche, modello di tavolato per la
scelta, barella e armatura di sostegno pel pesce,
bilancione, botti pel pesce e pell olio*

2 BISHOP, J.

Model of fishing stage

Modèle d'échafaud à poissons

Modell eines Gerüstes zum Fischen

Modello di palco per la pesca

GROUP VII.—CLASS LXVII.

Cereals, &c.

Céréales, etc.

Getreide etc.

Cereali, ecc.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 BENNETT, C. F.

Barley—Orge—Gerste—Orzo

2 O'BRIEN, HON. L.

Barley, oats

Orge, avoine

Gerste, Hafer

Orzo, avena

3 GRIEVE, WALTER

Barley, oats

Orge, avoine

Gerste, Hafer

Orzo, avena

4 COMMISSIONERS

Baskets made from cones of the fir tree

Corbeilles faites de cônes de sapin

Körbe aus Föhrenstämmen

Paniere fatto di pigne d' abete

CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie, etc.

Brot und Pasteten.

Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 VAILS JOINT STOCK COMPANY

Ship biscuit

Biscuits de mer

Schiffs-Zwieback

Biscotto da mare

CLASS LXX.

Meat and Fish.

Viandes et Poissons.

Fleisch und Fisch.

Carne e Pesce.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 WYATT, F. J.

Dried and smoked caplin

Caplin séché et fumé

Getrocknete und geräucherte Capline

Caplin seccato e affumicato

2 STABB, DR.

Caplin preserved in spirits

Caplin conservé dans l'alcool

Caplin, in Spiritus

Caplin conservato in alcool

3 TILLEY, WILLIAM

Cod fish, mussels, and lobsters, in hermetically closed tins

Morues, moules et homards conservés dans des boîtes fermées hermétiquement

Kabelgau, Muscheln und Hummer in luftdicht verschlossenen Blechen

Merluzzo, mitili, e ariguste, in stagnole chiuse ermeticamente

4 COMMISSIONERS

Salmon and cod-liver oil in hermetically closed tins

Sammon et huile de foie de morue dans des boîtes fermées hermétiquement

Lachs und Leberthran in luftdicht verschlossenen Blechen

Salmon e olio di fegato di merluzzo in stagnole chiuse ermeticamente

5 NORMAN, NATHAN, Labrador

Salmon and curlew

Saumon et courlis

Lachs und Brachvogel

Salmon e chiurlo

6 KNIGHT, THOMAS, St. John's

Preserved lobster and salmon

Homard et saumon conservés

Eingemachter Hummer und Lachs

Arigusto e salmone conservato

GROUP IX.—CLASS LXXXIV.

Flowers, &c.

Fleurs, etc.

Blumen etc.

Fiori, ecc.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

1 COMMISSIONERS

Specimens of native and wild flowers, in wax
Spécimens de fleurs indigènes et sauvages, en cire

Exemplare von einheimischen wilden Blumen in Wachs

Saggi in cera di fiori indigeni e selvatici

GROUP. X.—CLASS LXXXIX.

Apparatus for Instruction, &c.

Matériel de l'Enseignement, etc.

Unterrichtsmaterial etc.

Apparati pell' Istruzione, ecc.

(For detailed classification, see p. xxviii.)

(Voir le système de classification, p. xxviii.)

(Für detaillirte Classification, siehe Seite xxviii.)

(Vedasi il sistema di classificazione, p. xxviii.)

1 PEYTON, JOHN, Twillingate

Vocabulary of the Baothic Dialect

Vocabulaire du la langue baothique

Wörterbuch des Baothischen Dialectes

Vocabolario del dialetto baotico

NEW SOUTH WALES.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 LIDDINGTON, A. J., Witton Park, Bringelly
 Fruit and game
Fruits et gibier
 Früchte und Wildpret
Frutti e cacciagione

CLASS II.

Water-Colour Paintings, Drawings, &c.
Peintures diverses et Dessins.
 Gemälde, Zeichnungen u. s. w. in Wasserfarben.
Acquerelli, Disegni, ecc.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 THURSTON, MRS. E., Hartley
 Water-colour paintings
Aquarelles
 Gemälde in Wasserfarben
Acquerelli
- 2 FITZPATRICK, M., Sydney
 Pen etching
Dessin à la plume
 Federzeichnung
Disegno alla penna
- 3 GEDYE, MRS. C. T., Woollahra, Sydney
 Water-colour painting
Aquarelle
 Gemälde in Wasserfarben
Acquerello
- 4 NEW SOUTH WALES EXHIBITION COMMISSION
 Water-colour painting by C. Martens
 Water-colour painting by F. C. Terry
Aquarelles
 Gemälde in Wasserfarben
Acquerelli

- 5 ROBERT, J. R., Sydney
 Water-colour painting
Aquarelle
 Gemälde in Wasserfarben
Acquerello

- 6 ELYARD, S., Sydney
 Water-colour paintings
Aquarelles
 Gemälde in Wasserfarben
Acquerelli

CLASS III.

Sculpture and Die-Sinking.
Sculptures et Gravures sur Médailles.
 Sculptur und Stempelschneidekunst.
Scultura e Incisione a Conio.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 NEW SOUTH WALES EXHIBITION COMMISSION
 Sculpture in stone by W. McGill
Sculpture en pierre
 Sculptur in Stein
Scultura in pietra

CLASS IV.

Architectural Models and Designs.
Dessins et Modèles d'Architecture.
 Architectonische Modelle und Entwürfe.
Progetti e Modelli Architettonici.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

- 1 NEW SOUTH WALES EXHIBITION COMMISSION
 Model of La Pérouse's monument at Botany Bay
Modèle du monument élevé à la mémoire de La Pérouse, à Botany Bay
 Modell von La Pérouse's Denkmal, errichtet zu Botany Bay
Modello del monumento eretto a Botany Bay alla memoria di La Pérouse

GROUP II.—CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.
 Buchdruckerkunst und Bücher.
Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 GOVERNMENT OF NEW SOUTH WALES

Statutes, acts, registration of inventions, &c.
Lois, actes, enregistrement des brevets d'invention, etc.

Verordnungen, Landesgesetze, Verzeichniss
 von Erfindungen u. s. w.

Leggi, atti, registrazione di brevetti d'invenzione, ecc.

2 GOVERNMENT OF NEW SOUTH WALES

Books of native languages, by Rev. Wm. Ridley

Vocabulaires des langages des indigènes
 Bücher in den Sprachen der Eingebornen
Libri nelle lingue indigene

3 ELYARD, S., Sydney

Book

Livre

Buch

Libro

4 NEW SOUTH WALES EXHIBITION COMMISSION

Books on various subjects connected with the colony

Livres sur divers sujets ayant rapport à la colonie

Bücher über verschiedene Subjecte, welche
 mit der Colonie in Beziehung stehen

Libri su soggetti diversi riportandosi alla colonia

5 DICK, ALEX., Examiner of Titles, Sydney

Book

Livre

Buch

Libro

6 SYDNEY UNIVERSITY

University calendar, bound by Sheriff & Downing, Sydney

Calendrier relié par MM. Sheriff et Downing, à Sydney

Universitäts-Calender, gebunden von Sheriff & Downing, Sydney

Calendario legato dai Sgri. Sheriff e Downing, a Sydney

CLASS VIII.

Applications of Drawing and Modelling
 to the Common Arts.

*Applications du Dessin et de la Plastique
 aux Arts usuels.*

Anwendung des Zeichnens und Model-
 liren auf die gewöhnlichen Künste.

*Applicazioni del Disegno e della Plastica
 alle Arti usuali.*

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 PODMORE, ELIZABETH, Sydney

Wax models of Australian flowers

Fleurs de l'Australie modelées en cire

Wachsmodelle von Australischen Blumen

Modelli in cera di fiori dell'Australia

2 JOHNSON, MRS.

Wax models of Australian flowers

Fleurs de l'Australie modelées en cire

Wachsmodelle von Australischen Blumen

Modelli in cera di fiori dell'Australia

3 NEW SOUTH WALES EXHIBITION COMMISSION

Wax models of fruits

Fruits modelés en cire

Wachsmodelle von Früchten

Frutti modellati in cera

4 NEW SOUTH WALES EXHIBITION COMMISSION

Plaster casts of aboriginal feet and fingers

Modèles en plâtre des pieds et des doigts des indigènes

Gipsabgüsse von Füßen und Fingern von
 Eingebornen

Modelli in stucco di piedi e diti aborigeni

CLASS IX.

Photography.

Photographies.

Photographien.

Fotografie.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 NEW SOUTH WALES EXHIBITION COMMISSION

Photographs by Milligan Bros.; Freeman
 Bros. & Prout; Conrad Martens; F. C.

Terry; James Donaldson; Walter McGill

Photographies

Photographien

Fotografie

2 GOVERNMENT OF NEW SOUTH WALES

Photographs by Wm. Hetzer; J. Degotardi

Photographies

Photographien

Fotografie

3 SMITH, DR. J., Sydney University
Stereographs of prismatic sandstone
Stereographies de grès prismatique
Stereographien von prismatischem Sandstein
Stereografie in arenaria prismatica

4-17 DEGOTARDI, J.; HOLROYD, A. T.; PYE, J.;
JOINT STOCK BANK, Sydney; MUTUAL PROVIDENT SOCIETY, Sydney; FAIRFAX, J., & SONS; CLARKE, REV. W., B., St. Leonards; SMITH, T.; PYRMONT BRIDGE CO.; BRADY, MRS.; JOLLY, W., & Co., Sydney; CUTHBERT, JOHN, Sydney; SYDNEY GAS WORKS; NEW SOUTH WALES BIBLE SOCIETY

Photographs
Photographies
Photographien
Fotografie

18 NEW SOUTH WALES EXHIBITION COMMISSION
Photographs illustrating natural history, by Wm. Hetzer
Photographies pour l'illustration de l'histoire naturelle
Photographien zur Erläuterung der Naturgeschichte
Fotografie per illustrare la storia naturale

CLASS X.

Musical Instruments.
Instruments de Musique.
Musikalische Instrumente.
Strumenti Musicali.

(For detailed classification, see p. xv.)
(Voir le système de classification, p. xv.)
(Für detaillirte Classification, siehe Seite xv.)
(Vedasi il sistema di classificazione, p. xv.)

1 WAINWRIGHT, JORDAN, Sydney
Flute—*Flute*—*Flöte*—*Flauto*

CLASS XI.

Medical and Surgical Instruments and Apparatus.

Appareils et Instruments de l'Art Médical.

Medicinische und chirurgische Instrumente und Apparate.

Strumenti ed Apparati Medici e Chirurgici.

(For detailed classification, see p. xv.)
(Voir le système de classification, p. xv.)
(Für detaillirte Classification, siehe Seite xv.)
(Vedasi il sistema di classificazione, p. xv.)

1 FLETCHER, DAVID, Sydney
Specimen of dental mechanism
Dentier mécanique
Zahnmechanismus
Meccanismi da dentista

CLASS XII.

Philosophical Instruments and Apparatus for Teaching Science.

Instruments de Précision et Matériel de l'Enseignement des Sciences.

Philosophische Instrumente und Apparate zur Lehre der Wissenschaften.

Strumenti Filosofici ed Apparati per l'Insegnamento della Scienza.

(For detailed classification, see p. xv.)
(Voir le système de classification, p. xv.)
(Für detaillirte Classification, siehe Seite xv.)
(Vedasi il sistema di classificazione, p. xv.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Skull of an aboriginal female
Crâne d'une aborigène
Schädel einer eingebornen Frau
Cranio d'una donna aborigena

2 WILLIAMS, J., Sydney
Entomological collection
Collection entomologique
Insectensammlung
Collezione entomologica

3 NEW SOUTH WALES EXHIBITION COMMISSION
Collection of shells, by E. W. Rudder
Collection de coquilles
Muschelsammlung
Collezione di conchiglie

4 NORRIE, J. S., Sydney
White ants' nest
Nid de termites
Nest von weissen Ameisen
Nido di formica bianca

5 BODE, MRS., Newcastle
Collection of shells
Collection de coquilles
Muschelsammlung
Collezione di conchiglie

6 NEW SOUTH WALES EXHIBITION COMMISSION
Collection of natural history, by Gerard Krefft
Collection d'histoire naturelle
Naturwissenschaftliche Sammlung
Collezione per illustrare la storia naturale

7 MASTERS, G., Sydney
Collection of shells
Collection de coquilles
Muschelsammlung
Collezione di conchiglie

8 BARNES, HENRY, Sydney
Skeletons of Australian marsupials and monotremes
Squelettes d'animaux de l'Australie
Gerippe von Australischen Thieren
Scheletri d'animali dell'Australia

9 NEW SOUTH WALES EXHIBITION COMMISSION
Collection of Australian mammals and game birds

Collection des mammifères et du gibier de l'Australie

Sammlung von Australischen Säugethieren und Wildpret (Vögeln)

Collezione di mammiferi e di cacciagione dell'Australia

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

Cartes et Appareils de Géographie et de Cosmographie.

Karten und geographische und cosmographische Apparate.

Mappe e Appareati Geografici e Cosmografici.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Astronomical and meteorological observations, by G. R. Smalley, B.A., F.R.A.S.

Observations astronomiques et météorologiques

Astronomische und meteorologische Beobachtungen

Osservazioni astronomiche e meteorologiche

2 GOVERNMENT OF NEW SOUTH WALES
Statistical view of New South Wales for twenty years, by T. J. Jaques, Sydney

Statistiques de la Nouvelle Galles du Sud

Statistik von Neu-Süd-Wales für zwanzig Jahre

Statistica della Nuova Galles del Sud

3 NEW SOUTH WALES EXHIBITION COMMISSION
Australian nautical almanac

Calendrier nautique de l'Australie

Australischer nautischer Almanach

Calendario nautico dell'Australia

4 WILKINS, W., Chief Inspector of National Schools, Sydney

Geography of New South Wales

Géographie de la Nouvelle Galles du Sud

Geographie von Neu-Süd-Wales

Geografia della Nuova Galles del Sud

GROUP III.—CLASS XIV.

Fancy Furniture.

Meubles de Luxe.

Luxusmöbel.

Mobili di Lusso.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Stand for wine

Cave à vin

Gestell für Wein

Portavino

2 O'NEIL, E. H.

Case for perfumery

Boîte à parfums

Kasten für Parfümerie

Cassetta da profumeria

3 O'NEIL, THOMAS

Case for confectionery

Boîte à confitures

Kasten für Zuckerwaaren

Cassetta da confetture

CLASS XV.

Upholstery and Decoration.

Ouvrages de Tapissier et de Décorateur.

Tapézirer- und Decorateur-Arbeit.

Tappezzerie, e Lavori Decorativi

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Aboriginal tomb tablet

Plaque de tombeau d'un indigène

Grabtafel eines Eingebornen

Tavoletta di tomba aborigena

2 NEW SOUTH WALES EXHIBITION COMMISSION
Carved tablet, designed by Mr. Manderson,

carved by Armstrong

Plaque sculptée

Tablette, mit gehauener Arbeit

Tavoletta intagliata

3 NEW SOUTH WALES EXHIBITION COMMISSION
Top of loo table

Table de jeu

Tischplatte

Tavola da giuoco

CLASS XVII.

Porcelain, &c.
Porcelaines, etc.
 Porcellan u. s. w.
Porcellana, ecc.

(For detailed classification, see p. xvi.)
 (Voir le système de classification, p. xvi.)
 (Für detaillirte Classification, siehe Seite xvi.)
 (Vedasi il sistema di classificazione, p. xvi.)

1 MANNING, J., Panbula, Twofold Bay

Kaolin urn
Vase de porcelaine
 Porcellanvase
Vaso di porcellana

2 BRADFORD & Co., Balmain

Rough pottery
Poterie commune
 Gewöhnliche Töpferwaaren
Vasellame comune

CLASS XX.

Cutlery.
Coutellerie.
 Messerschmiedewaaren.
Coltellineria.

(For detailed classification, see p. xvii.)
 (Voir le système de classification, p. xvii.)
 (Für detaillirte Classification, siehe Seite xvii.)
 (Vedasi il sistema di classificazione, p. xvii.)

1 JENNINGS, MRS. W., Sydney

Cutlery
Coutellerie
 Messerschmiedewaaren
Coltellineria

CLASS XXI.

Gold and Silver Plate.
Orfèvrerie.
 Gold- und Silbergeschirr.
Oggetti d' Oro e d'Argento.

(For detailed classification, see p. xvii.)
 (Voir le système de classification, p. xvii.)
 (Für detaillirte Classification, siehe Seite xvii.)
 (Vedasi il sistema di classificazione, p. xvii.)

1 NEW SOUTH WALES EXHIBITION COMMISSION

Flower vases made of emu eggs
Vases à fleurs faits des œufs du casoar
 Blumenvasen, aus Emu-Eiern gemacht
Vasi da fiori fatti dell' uova dell' emeu

2 VEYRET & DELARUE, Sydney

Silversmith's work
Orfèvrerie d'argent
 Silberschmiedearbeit
Argenteria

CLASS XXV.

Perfumery.
Parfumerie.
 Parfümerie.
Profumeria.

(For detailed classification, see p. xvii.)
 (Voir le système de classification, p. xvii.)
 (Für detaillirte Classification, siehe Seite xvii.)
 (Vedasi il sistema di classificazione, p. xvii.)

1 O'NEIL, E. H., Sydney

Perfumes from native flowers
Parfums de fleurs indigènes
 Parfümerien von einheimischen Pflanzen
Profumi estratti da fiori indigeni

2 LAYTON, F., Grafton

Soap
Savons
 Seife
Sapone

CLASS XXVI.

Leather Work, Fancy Articles, and
 Basket Work.

Objets de Maroquinerie, de Tabletterie et de Vannerie.

Lederarbeit, Modeartikel und Korbwaaren.

Lavori in Pelle, Oggetti di Lusso, e Lavori di Vimini.

(For detailed classification, see p. xvii.)
 (Voir le système de classification, p. xvii.)
 (Für detaillirte Classification, siehe Seite xvii.)
 (Vedasi il sistema di classificazione, p. xvii.)

1 JORDAN, G., Grafton

Turnery
Objets tournés
 Drechslerarbeit
Oggetti fatti al tornio

2 McFADDEN, J., JUN., Richmond River District

Pipe bowl of colonial meerschaum
Pourneau de pipe d'écume de mer de la colonie
 Pfeifenkopf von einheimischem Meerschaum
Focolare da pippa, di spuma di mare della colonia

GROUP IV.—CLASS XXX.

Woollen Fabrics.

Tissus de Laine.

Wollene Fabricate.

Tessuti di Lana.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1-2 FRENCH & SONS, Bowenfels; EBSWORTH,

O. B., Sydney

Colonial tweeds

Tweeds fabriquées dans la colonie

Tweeds, in der Colonie gemacht

*Tweeds fabbricati nella colonia***CLASS XXXIV.**

Hosiery and Underclothing.

Articles de Bonneterie et de Lingerie.

Strumpfwaaren und Unterkleider.

Calzetteria e Biancheria.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 MORRISON, JANET, Canbury, Queanbeyan

Socks, gloves, &c., of opossum wool

Chaussettes, gants, etc., de laine d'opossum

Socken, Handschuhe u. s. w. von Opossum-

Wolle

*Solette, quanti, ecc., di lana d' opossum***2 NATHAN, S., Sydney**

Petticoat, etc.

Jupe, etc.

Unterrock u. s. w.

*Gonnella, ecc.***3-4 SOARES, REV. A. D., Queanbeyan; McDONALD, MRS.**

Gloves of opossum wool

Gants de laine d'opossum

Handschuhe von Opossum-Wolle

*Quanti di lana d' opossum***CLASS XXXV.**

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidungsstücke für beide Geschlechter.

Abbigliamento per ambo i Sessi.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 NEW SOUTH WALES EXHIBITION COMMISSION

Cabbage-tree hats and plaits

Chapeaux et tresses fabriqués avec les feuilles du cabbage-tree

Hüte und Flechten aus den Blättern der

Kohlpalme

*Cappelli e treccie fatti di foglie del cabbage-tree***2 LOBB, J., Sydney**

Men's and women's boots

Chaussures d'hommes et de femmes

Herren- und Damenschuhe

*Stivali da uomo e da donna***3 BAWDEN, T., Grafton**

Hats made of the fibre of the sycamore-tree

Chapeaux faits de fibres du sycomore

Hüte, gemacht aus der Fiber des wilden

Feigenbaumes

*Cappelli fatti di fibre del sicomoro***4 MAX, J. H., Randwick Destitute Children's**

Asylum

Cabbage-tree plaits

Tresses faites avec les feuilles du cabbage-tree

Flechten aus den Blättern der Kohlpalme

*Treccie fatte di foglie del cabbage-tree***5 NEW SOUTH WALES EXHIBITION COMMISSION**

Aboriginal head-dress, ornamental fringes, widows' caps, &c.

Coiffures, franges, bonnets de veuves des indigènes, etc.

Kopfschmuck, verzierte Fransen, Wittwen-

hauben u. s. w. der Eingebornen

*Acconciatura, frangie ornamentali, berrette da**vedove, ecc., degli aborigeni***CLASS XXXVI.**

Jewellery and Precious Stones.

Joannerie et Bijouterie.

Juwelierwaaren und Edelsteine.

Gioie e Pietre Preziose.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1-2 NEW SOUTH WALES EXHIBITION COMMISSION; QUIST, C. L., Sydney

Jewellery

Bijouterie

Juwelierwaaren

*Gioie***3 COOPER, SIR DANIEL**

Studs and sleeve links of native gold

Boutons de chemise et de manches d'or indigène

Knöpfe und Manchettenknöpfe aus einheimischem Gold

Bottoni da camicia e da manica, d'oro indigeno

CLASS XXXVII.

Portable Weapons.

Armes Portatives.

Tragbare Waffen.

Armi Portatili.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

- 1 NEW SOUTH WALES EXHIBITION COMMISSION
Sword—the hilt of native gold, and the blade
of New South Wales steel

*Sabre—la poignée d'or indigène et la lame
d'acier fabriqué dans la colonie*

*Säbel—der Griff von einheimischem Gold und
die Klinge von Stahl von Neu-Süd-Wales
Spada—l'elsa d'oro indigeno, e la lama d'ac-
ciaio della colonia*

- 2 NEW SOUTH WALES EXHIBITION COMMISSION
Shields, weapons, clubs, &c., of aboriginals
*Boucliers, massues, casse-têtes, etc., des indi-
gènes*
Schilde, Waffen, Keulen u. s. w. der Eingebornen
Scudi, clavae, mazze, ecc., degli aborigeni

GROUP V.—CLASS XL.

Mining and Metallurgy.

*Produits de l'Exploitation des Mines et
de la Métallurgie.*

Bergbau und Metallurgie.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

- 1 NEW SOUTH WALES EXHIBITION COMMISSION
Collection of specimens of coal
Collection de spécimens de charbon
Sammlung von Kohlenproben
Collezione di saggi di carbon fossile

- 2-5 FITZROY IRON WORKS AND MINING COM-
PANY, New Sheffield, at Nattai; HARTLEY
KEROSENE OIL AND PARAFFINE COMPANY;
WESTERN KEROSENE OIL COMPANY, Hart-
ley; GRAHAM, J.
Anthracite, and kerosene shale
Anthracites, et schistes-kérosènes
Anthracit und Kerosene-Schiefer
Antracite, e schisto kerosene

- 6-7 GRAHAM, J.; HARTLEY KEROSENE OIL AND
PARAFFINE COMPANY
Kerosene and paraffine oil
Huile kérosène, et de paraffine
Kerosene- und Paraffinöl
Olio kerosene ed olio di parafina

- 8-13 CADRANGULONG MINE COMPANY, near
Orange; CADRANGULONG CONSOLIDATED COP-
PER MINING COMPANY (Limited); CROKER,
C.; NEW SOUTH WALES EXHIBITION COM-
MISSION; WESTERN COPPER MINING COM-
PANY; HILL, E. S.
Copper ores
Minerais de cuivre
Kupfererze
Minerali di rame

- 14-19 GRAHAM, A., Adelong; ROSE, A. C. S.,
Gundagai; SKID HOLLOW QUARTZ MINING
COMPANY; KING, ELIZABETH, GOONOO GOONOO;
ELDRED, A. H.; LAMB, J. DE V.
Auriferous quartz
Quartz aurifère
Goldreiches Quarz
Quarzo aurifero

- 20-21 MANN, G. K., Sydney; FITZROY IRON-
WORKS AND MINING COMPANY
Iron ores
Minerais de fer
Eisenerze
Minerali di ferro

- 22 FITZROY IRONWORKS AND MINING COMPANY,
New Sheffield
Fire clay
Grès réfractaire
Feuerthon
Argilla a prova di fuoco

- 23-25 LAMB, J. DE V., and MORRIS, AUGUSTUS;
HILL, E. S., and MILSON, J.
Samples of tin
Spécimens de minerais d'étain
Proben von Zinn
Campioni di stagno

- 26 HILL, E. S.
Stanniferous sand
Sable stannifère
Zinnreicher Sand
Sabbia stagnata

- 27-31 MARTIN, A.; WILSHIRE, W. P.; WALKER,
T., Yaralla, Concord; MORUYA SILVER
MINING COMPANY; RENNY, WALTER, Sydney
Silver and lead ores
Minerais d'argent et de plomb
Silber- und Bleierze
Minerali d'argento e di piombo

- 32 CLEMENTS, JOHN F., Summerhill, Bathurst
Auriferous black sand
Sable noir aurifère
Goldreicher schwarzer Sand
Sabbia nera aurifera

- 32A COOPER, SIR DANIEL, BART. (App. p. 128a)
Native gold from the various auriferous
districts
*Or provenant des divers districts aurifères de
la colonie*
Einheimisches Gold von den verschiedenen
goldreichen Districten
Oro dai distretti auriferi della colonia

- 33 NEW SOUTH WALES EXHIBITION COMMISSION**
Native gold from the various auriferous districts
Or provenant des divers districts aurifères de la colonie
Einheimisches Gold von den verschiedenen goldreichen Districten
Oro dai distritti auriferi della colonia
- 34 Moss, H.**
Native alum
Alum indigène
Einheimischer Alaun
Allume indigeno
- 35 MANNING, J., Panbula, Twofold Bay**
Kaolin clay
Kaolin
Porcellanthon
Kaolin
- 36 WALKER, T. Yaralla, Concord**
Granite
Granit
Granit
Granito
- 37 FITZROY IRON WORKS AND MINING COMPANY, New Sheffield, Nattai**
Limestone
Pierre calcaire
Kalkstein
Pietra da calcina
- 38 BAWDEN, T., Grafton**
Specimen of ore supposed to contain antimony
Spécimen de minéral contenant, dit-on, de l'antimoine
Proben von Erzen, welche Antimonium enthalten sollen
Saggio di miniera contenendo, si dice, l'antimonio
- 39 RUSSELL, P. N., & Co., Sydney**
Bas-relief casting, representing the royal coat of arms, in iron and steel
Bas-relief en fonte de fer et d'acier représentant la cotte d'armes royale
Basrelief-Abguss, das königliche Wappen darstellend, in Eisen und Stahl
Bassorilievo in getto di ferro e d'acciaio, rappresentando la stemma reale
- 40 HENDERSON, CONST., SEN., Ballina, Richmond River**
Silicate of magnesia
Silicate de magnésie
Kieselsäure Magnesia
Silicato di magnesia
- 41 GRIBBEN, J., Sydney**
Horse-shoes
Pers à chevaux
Hufeisen
Ferri da cavallo
- 42 NEW SOUTH WALES EXHIBITION COMMISSION**
Geological specimens
Collection de minéraux
Geologische Proben
Collezione di minerali
- 43 YATES, L., and BUTLER, G., Warialda**
Carboniferous shales
Schistes carbonifères
Kohlenreiche Schiefer
Schisti carboniferi
- 44 LODER, A.**
Petrifications
Pétrifications
Versteinerungen
Petrificazioni
- 45-46 NEW SOUTH WALES EXHIBITION COMMISSION; HILL, E. S.**
Asbestos
Asbeste
Asbest
Amianto
- 47 SMITH, DR. JOHN, Sydney University**
Prismatic sandstone
Grès prismatique
Prismatischer Sandstein
Arenaria prismatica
- 48-49 NEW SOUTH WALES EXHIBITION COMMISSION; LE FLEMING, A.**
Fossils and ores of copper and lead
Fossiles et minerais de cuivre et de plomb
Fossilien und Kupfer- und Bleierze
Fossili e minerali di rame e di piombo
- 50 CALVERT, J. S., Cavan, Yass**
Limestone, quartz, galena, copper, and iron ore
Pierre calcaire, quartz, galène, cuivre et minerais de fer
Kalkstein, Quarz, Bleierz, Kupfer und Eisenerz
Pietra da calcina, quarzo, galena, rame e miniera di ferro
- 51 AARON, JOSEPH, Narramine, Wellington**
Limestone
Pierre calcaire
Kalkstein
Pietra da calcina
- 52 CLARKE, REV. W. B.**
Geological sections; photographs of fossil fishes
Sections géologiques; photographies de poissons fossiles
Geologische Sectionen; Photographien von Fossilfischen
Sezioni geologiche; fotografie di pesci fossili
- 53 MURPHY, F., Sydney**
Marble
Marbre
Marmor
Marmo
- 54-55 NEW SOUTH WALES EXHIBITION COMMISSION; COBCROFT, A., Charlton, near Singleton**
Granite
Granit
Granit
Granito

56 ELLIOTT BROTHERS, Sydney

Bisulphite of soda
Bi-sulfite de soude
 Ueberschwefelsaure Soda
Bisolfato di soda

57 BARNET, J., Colonial Architect

Specimens of stone
Spécimens de pierres
 Steinproben
Campioni di pietre

58 FRANKLAND, G. J., Mowbray, Paterson

Sample of alluvial loam
Spécimen de terre glaise alluviale
 Proben von angeschwemmtem Lehm
Campioni di creta d'alluvione

59 COOPER, SIR DANIEL, BART.

Specimens of auriferous quartz
Spécimens de quartz aurifère
 Proben von goldreichem Quarz
Campioni di quarzo aurifero

60 EDWARDS BROTHERS

Pyrates and fossil
Pyrites et fossile
 Schwefelkies und Fossil
Piriti e fossile

CLASS XLI.

Products of the Cultivation of Forests
 and of the Trades appertaining there-
 to.

*Produits des Exploitations et des Indus-
 tries Forestières.*

Producte der Waldcultur und der
 davon abhängigen Geschäftszweige.

*Prodotti della Coltura delle Foreste e
 delle Industrie che ne derivano.*

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1-6 NEW SOUTH WALES EXHIBITION COMMISSION; JOSEPHSON, I. J., Sydney; MOSES, H., Shorncliffe; SAMUEL, SAUL, Sydney; MACARTHUR, J. & W., Camden Park; LAMROCK, M. Canes, gums, walking sticks, moss, barks
Cannes, gommes, mousses, écorces
 Rohre, Gummi, Spazierstöcke, Moos, Rinden
Canne, gomma, mazze, muschi, scorze

7 NEW SOUTH WALES EXHIBITION COMMISSION

Brooms made of palm leaves
Balais faits de feuilles de palmier
 Besen, von Palmblättern gemacht
Scopa fatte di foglie di palma

8 NEW SOUTH WALES EXHIBITION COMMISSION

Refuse of *Castanospermum australe* after extracting the starch; nuts of the same
Résidu du Castanospermum australe après l'extraction de l'amidon; noix du même
 Ueberbleibsel des *Castanospermum australe* nach der Ausziehung der Stärke; Nüsse desselben
Residuo del Castanospermum australe dopo l'estrazione dell'amido; noce del medesimo

9 CREER, JOSEPH, West Maitland

Brooms
Balais
 Besen
Scopa

10 NEW SOUTH WALES EXHIBITION COMMISSION

Skeleton leaves of Australian trees
Feuilles anatomisées des arbres de l'Australie
 Gerippe der Blätter von Australischen Bäumen
Foglie anatomizzate degli alberi d'Australia

11 NEW SOUTH WALES EXHIBITION COMMISSION

Pegees for holding water, &c., used by the aborigines
Pegees pour contenir de l'eau, etc. dont se servent les indigènes
 Pegees zum Wasserenthalten u. s. w., von den Eingebornen gebraucht
Pegees per contenere l'acqua, ecc., usati dagli aborigeni

12 MARKS, MR.

Pegee
Pegee
 Pegee
Pegee

13-14 NEW SOUTH WALES EXHIBITION COMMISSION; FRANKLAND, G. J., Paterson

Seeds raw and made into ornaments
Graines brutes, et sculptées pour bracelets, etc.
 Samen, roh und in Ornamente verfertigt
Semi crudi e intagliati per bracciali

15 Moss, —

Berries used as dyes
Baies, employés pour teintures
 Zum Färben benutzte Beeren
Bacche impiegate nella tintura

16 BAWDEN, T., Mayor of Grafton

Pods of the *Castanospermum australe*
Cosses du Castanospermum australe
 Hülsen des *Castanospermum australe*
Baccelli del Castanospermum australe

17 NEW SOUTH WALES EXHIBITION COMMISSION

Oleaginous seeds
Graines oléagineuses
 Oelichte Samen
Semi oleosi

18 BAWDEN, T., Grafton

Dye-wood
Bois employé pour teintures
 Färbehölzer
Legno da tinta

19 NEW SOUTH WALES EXHIBITION COMMISSION
Specimens of colonial woods
Spécimens des bois de la colonie
Proben von einheimischem Holze
Campioni di legni della colonia

20-31 BARNET, J., Sydney; NEW SOUTH WALES
EXHIBITION COMMISSION; BUNKER, MRS.,
Liverpool; Moss, H., Shoalhaven; FRANK-
LAND, G. J., Paterson; CUTHBERT, J., Syd-
ney; EBSWORTH, FRED.; HILL, E. S.; MACAR-
THUR, SIR WILLIAM; MOORE, C.; LAMAN, E.,
Grafton; JOLLY, W., & Co., Sydney
Collection of various colonial woods
Collection de bois divers de la colonie
Sammlung von verschiedenen einheimischen
Holzarten
Collezione di legni diversi della colonia

32 COOPER, SIR DANIEL, BART.

Piece of wood taken lately from a ship built
of colonial timber in 1831; colonial iron-bark
wood, and timber used for ship-building;
peg-tops of colonial hard wood

*Morceau de bois pris récemment d'un navire
construit de bois de la colonie en 1831; bois
indigène dit 'iron-bark' (écorce de fer), et bois
employés pour constructions navales; toupies
de bois durs de la colonie*

Stück Holz, welches von einem im Jahre 1831
von einheimischem Holz gebauten Schiffe
genommen wurde; einheimisches Eisenholz
und zum Schiffbau benutztes Holz; Kreisel
von einheimischem harten Holze

*Pezzo di legno prelevato di recente d'una nave
costrutta del legno della colonia nel 1831;
legno della colonia detto 'iron-bark' (scorza
di ferro), e legno impiegato nelle costruzioni
navali; trottola di legno duro della colonia*

CLASS XLII.

Products of Shooting, Fishing, &c.
Produits de la Chasse, de la Pêche, etc.
Producte der Jagd, des Fischfangs

U. S. W.

Prodotti della Caccia, della Pesca, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 STACK, REV. W., Balmain

Opossum fur

Fourrure d'opossum

Opossumpelz

Pelliccia d'opossum

2 BAKER, W. J., Sydney

Black swans' down

Duvet de cygne noir

Daunen vom schwarzen Schwan

Peluria di cigno nero

3 Moss, H., Shoalhaven

Sponges

Eponges

Schwämme

Spugne

4 NEW SOUTH WALES EXHIBITION COMMISSION

Whale's tusk and teeth; kangaroo leg bone

Défenses de baleine; os de jambe de kangaroo

Fischbein; Beinknochen vom Känguruh

*Denti e zanne di balena; osso di gamba di can-
guru*

5-6 NEW SOUTH WALES EXHIBITION COMMISSION;

Moss, H., Shoalhaven

Gums, barks, varnish

Gommes, écorces, vernis

Gummi, Rinden, Firnis

Gomme, scorze, vernice

7 COOPER, SIR DANIEL, BART.

Whale's tooth carved and coloured

Dent de baleine, sculpté et colorié

Wallfischzahn, geschnitten und gefärbt

Dente di balena, intagliato e colorito

8 RAPHAEL, MRS. and Miss, Sydney

Collection of sea-weeds

Collection de plantes marines

Sammlung von Meergras

Collezione di alghe

CLASS XLIII.

Agricultural Products (not used as
Food) easily preserved.

*Produits agricoles (non-alimentaires) de
facile conservation.*

Landwirthschaftliche Producte (nicht
als Nahrung gebraucht), welche
leicht aufbewahrt werden können.

*Prodotti d'Agricoltura (non usati per
cibo), facilmente conservati*

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1-14 FAITHFUL, W. P., near Goulburn; KUM-
MERER, R., Sydney; COX, E.K., Mudgee;
RILEY, J. J., Mulgoa; COX, C. C., Broomby,
near Mudgee; BAYLEY, N. P., Mudgee; COX;
G. H., Mudgee; LORD, F., Sydney; EBS-
WORTH, FRED.; DANGAR BROS., Yallaroy;
Gwydir; GLASS & CORRIGAN, Singleton;
WYNDHAM, JOHN, Dalwood; EVENIS, MR.,
Bathurst; YEO, G. S., Hunter River

Wool

Laine

Wolle

Lana

15-21 COX, G. H., Mudgee; CHRISTIAN, J., & Co., Walhallow, Liverpool Plains; BAYLEY, N. P.; TRAIL, DR., Collaroy; COOPER, FRANK, near Goulburn; COX, E. K., Mudgee; COX, C. C., Mudgee

Fleeces of wool—*Toisons*—*Vliesse*—*Velli*

22 ACCLIMATISATION SOCIETY OF NEW SOUTH WALES

Alpaca wool and skins
Laines et peaux d'alpaca
Alpacawolle und Häute
Lane e pelli d'alpaca

23-25 YORK BROS., Sydney; BELL, HENRY, Sydney; HEWITT, T., Grafton
Tallow—*Suif*—*Talg*—*Sevo*

26-27 NEW SOUTH WALES EXHIBITION COMMISSION; BELL, HENRY, Sydney
Purified neatsfoot oil
Huile de pied de bœuf purifié
Gereinigtcs Rindsfussöl
Olio di piede di bue, purificato

28 BELL, HENRY, Sydney
Bone dust
Os en poudre
Knochenstaub
Polvere d'osso

29 BUNKER, MRS., Liverpool
Beeswax
Cire d'abeilles
Bienenwachs
Cera

30 NEW SOUTH WALES EXHIBITION COMMISSION
Colonial grown silk
Soie indigène
Seide, in der Colonie gebaut
Seta della colonia

31 WAINWRIGHT, JORDAN, Sydney
Colonial grown silk
Soie indigène
Seide, in der Colonie gebaut
Seta della colonia

32 MAY, J. W., Superintendent, Randwick
Destitute Children's Asylum
Raw silk
Soie grège
Rohseide
Seta greggia

33 LAMROCK, M., North Richmond
Native cotton
Coton brut du pays
Einheimische Baumwolle
Cotone greggio della colonia

34-40 NEW SOUTH WALES EXHIBITION COMMISSION; WILCOX, MRS. J. F., Grafton; MOSS, H., Shoalhaven; BIRCH, C., Weldon; LAMROCK, M., North Richmond; BAWDEN, T., Grafton; BLACK, WALTER, Wooli
Fibres and barks for cordage, nets, &c.
Fibres textiles pour cordes, filets, etc.
Fiber und Rinden für Seile, Netze u. s. w.
Fibre e scorze per sartiamo, reti, ecc.

41 WHYTLAW, M., Balmain
Flax made of *Phormium tenax*
Lin fabriqué du Phormium tenax
Flachs, von *Phormium tenax* gewonnen
Lino fabbricato del Phormium tenax

42-43 WILCOX, MRS., Grafton; ZANELLI, ANGELO, Ulmarra; MICHAEL, J. L., Grafton; GREGOR, J., Woodford Island; EBSWORTH, O. B., Sydney; GLENNIE, MRS. A., Lochinvar; SMITH, JOHN, Singleton
Cotton
Coton
Baumwolle
Cotone

49 EBSWORTH, O. B., Sydney
Seeds of Sea Island cotton
Graines du coton dit Sea Island
Samen von Baumwolle von Sea Island
Semi del cotone detto 'Sea Island'

50-51 CAMPBELL, D. H., Goimbla; CHURCH, J., West Maitland
Tobacco
Tabac
Taback
Tabacco

52 COOPER, SIR DANIEL, BART.
Colonial grown cotton; wool in grease; lamb's wool; colonial fibres
Coton indigène; laine en suint; laine d'agneau; fibres textiles de la colonie
Einheimische Baumwolle; noch nicht ganz gereinigte Wolle; Lammwolle; einheimische Fiber
Cotone greggio della colonia; lana in unto; lana d'agnello; fibre da tessere della colonia

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.
Chemische und pharmaceutische Produkte.

Prodotti Chimici e Farmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 SQUIRE, W. P., Parramatta

Sarsaparilla
Salsepareille
Sarsaparilla
Salsapariglia

2 KNAGGS, R. C., Newcastle

Quinine wine
Vin de quinine
Quininwein
Vino di chinina

3 NEW SOUTH WALES EXHIBITION COMMISSION
Dyes, collected by E. W. Rudder
Matières employées pour teintures
Färbestoffe
Materiali usati nella tintura

4 ELLIOTT BROTHERS, Sydney
Super-phosphate of lime; sulphate of iron
Phosphate de chaux; sulfate de fer
Knochenasche; Eisenvitriol
Fosfato di calce; solfato di ferro

5 BAWDEN, T., Grafton
Medicinal bark
Ecorce employée comme médicament, etc.
Medicinische Rinde
Scorza medicinale

6 PATTERSON, T., Sydney
Medicinal products
Médicaments
Medicinische Producte
Prodotti medicinali

7 BERNCASTLE, DR., Sydney
Antidote to the bites of snakes
Antidote du venin des serpents
Gegenmittel gegen Schlangenbisse
Antidoto contro il veleno dei serpenti

8 WILCOX, J. F., Grafton
Medicinal bark
Ecorce employée comme médicament, etc.
Medicinische Rinde
Scorza medicinale

9 JOSEPHSON, I. J., Sydney
Australian ointment for cure of wounds
Onguent pour la guérison des blessures
Australische Salbe zum Heilen von Wunden
Unguento pella guarigione delle ferite

10 FOULIS, DR., Sydney
Bitter-bark—*Ecorce amère*
Bitterrinde—*Scorza amara*

11 WALKER & BERRY, Botany Bay
Colonial glue—*Colle-forte*
Einheimischer Leim—*Colla coloniale*

CLASS XLV.

Bleaching, Dyeing, Printing, &c.
Blanchiment, Teinture, Impression, etc.
Bleichen, Färben, Drucken u. s. w.
Bianchimento, Tintura, Stampa, ecc.

(For detailed classification, see p. xxi.)
(Voir le système de classification, p. xxi.)
(Für detaillirte Classification, siehe Seite xxi.)
(Vedasi il sistema di classificazione, p. xxi.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Specimens of dyed woollen, wool, linen, and silk, by E. W. Rudder
Echantillons de tissus de laine, de lin et de soie teints

Muster von gefärbten Wollenstoffen, Wolle
Leinwand und Seide
Campioni di tessuti di lana, di lino e di seta tinti

2 BAWDEN, T., Grafton
Specimen of dyed ribbon
Echantillon de ruban teint
Muster von gefärbtem Bande
Campione di nastro tinto

CLASS XLVI.

Leather and Skins.
Cuir et Peaux.
Leder und Häute.
Cuoio e Pelli.

(For detailed classification, see p. xxi.)
(Voir le système de classification, p. xxi.)
(Für detaillirte Classification, siehe Seite xxi.)
(Vedasi il sistema di classificazione, p. xxi.)

1 STACK, REV. W., Balmain
Tanned skins; opossum skin tanned and prepared for a cloak
Peaux tannées; peau d'opossum tannée et préparée pour servir de manteau
Gegerbte Häute; Häute der Beutelratze, gegerbt und zubereitet für einen Mantel
Pelli conciate; pelle d'opossum conciate e preparata per servire di mantello

2 ALDERSON & SONS, Sydney
Patent enamelled kangaroo skins
Peaux de kangaroo émaillées, brevetées
Patentirte emaillirte Känguruh-Häute
Pelli di kanguru smaltate, patentate

3-4 SADDINGTON & SONS, Sydney; BEGG, J. T., Glenmore Tannery, Sydney
Sole leather
Cuir pour semelles
Sohlenleder
Cuoio da suole

5 NEW SOUTH WALES EXHIBITION COMMISSION
Manufactured and unmanufactured skins of the platypus
Peaux vertes et préparées du platypus
Rohe und zubereitete Häute des Platypus
Pelli conciate e non conciate del platypus

6 COOPER, SIR DANIEL, BART.
Grey and black opossum skins prepared stuffed platypus
Peaux mégissées d'opossum gris et noir; platypus empaillé
Präparirte Häute der grauen und schwarzen Beutelratze; ausgestopfter Platypus
Pelli conciate d'opossum bigio e nero; platypus impagliato

GROUP VI.—CLASS XLIX.

Shooting Apparatus, Fishing Tackle, &c.

Engins et Instruments de la Chasse, de la Pêche, etc.

Geräthe für die Jagd, den Fischfang u. s. w.

Apparati usati alla Caccia, Pesca, ecc.

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Baskets, dilly bags, nets, &c., used by the natives

Paniers, sacs, filets, etc., dont se servent les indigènes

Körbe, Fischreusen, Netze u. s. w., welche von den Eingebornen gebraucht werden

Panieri, sacchi di canna, reti, ecc., usati dagli indigeni

2 BAWDEN, T., Grafton, Clarence River
Fishing nets, lines, etc.

Appareils et ustensiles de pêche, filets, etc.

Fischernetze, Angelschnuren u. s. w.

Reti, lenze, ecc.

3 BLACK, WALTER, Wooli, Clarence River
Aboriginal dilly-bag and fishing line

Sac de jonc et ligne de pêche employé par les indigènes

Fischreusen, Angelschnuren, von den Eingebornen gebraucht

Sacchi di canna e lenza usati dagli aborigeni

CLASS L.

Apparatus used in Agricultural Works, and in Works for the Preparation of Food.

Matériel des Usines agricoles et des Industries alimentaires.

Apparate, welche in der Landwirthschaft und in der Zubereitung von Nahrung benutzt werden.

Apparati usati nelle Officine Agrarie, e nelle Officine per la Preparazione dei Cibi.

(For detailed classification, see p. xxii.)

(Voir le système de classification, p. xxii.)

(Für detaillirte Classification, siehe Seite xxii.)

(Vedasi il sistema di classificazione, p. xxii.)

1 NEW SOUTH WALES EXHIBITION COMMISSION
Stones for grinding combolees seeds; native yam spades

Pierres à broyer les graines de combolees; bèches à ignames employées par les indigènes
Steine zum Mahlen von Combolees-Samen; einheimische Spaten zum Graben der Jamswurzel

Pietre per macinare i semi di combolees; vaghe da ignamo usate dagli aborigeni

CLASS LIX.

Paper Making, Dyeing, and Printing.
Matériel de la Papeterie, des Teintures et des Impressions.

Materialien zum Papiermachen, Färben und Drucken.

Materiali usati nella Fabbricazione della Carta, nella Tintoria e nella Stampa.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 RICHARDS, T., Government Printer, Sydney
Stereotype plates, moulds, &c.

Séréotypes, moules, etc.

Stereotyp-Platten, Formen u. s. w.

Stereotipi, forme, ecc.

2 WRIGHT, A., Sydney

Type and chase

Caractères d'imprimerie et châssis

Schriftproben und Rahmen

Saggi di tipi da stampa e telajo

CLASS LXII.

Harness and Saddlery

Bourrellerie et Sellerie.

Pferdegeschirr und Sattlerwaaren.

Fornimenti da Cavalli e Selleria.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 BRUSH, J., Sydney

Lady's side saddle

Selle de dame

Damensattel

Sella da donna

2 DANGAR, A. A.

Whips

Cravaches et fouets

Peitschen

Fruste

CLASS LXV.

Civil Engineering, Architecture, &c.
*Matériel du Génie Civil, de l'Architec-
 ture, etc.*

Civil - Ingenieurkunst, Architectur
 u. s. w.

Genio Civile, Architettura, ecc.

(For detailed classification, see p. xxv.)
 (Voir le système de classification, p. xxv.)
 (Für detaillirte Classification, siehe Seite xxv.)
 (Vedasi il sistema di classificazione, p. xxv.)

- 1 BARNET, J., Colonial Architect
 Fire-bricks, used in house building
Briques réfractaires pour constructions
 Feuerfeste Backsteine, zum Bauen von Häu-
 sern gebraucht
Mattoni a fuoco da costruzione

GROUP VII.—CLASS LXVII.

Cereals and other Edible Farinaceous
 Products, and the Products derived
 from them.

*Céréales et autres Produits farineux co-
 mestibles, avec leurs Dérivés.*

Getreide und andere essbare mehlig
 Producte, nebst den davon bereite-
 ten Nahrungsstoffen.

*Cereali ed altri Prodotti Farinacei Co-
 mestibili, e i Prodotti che ne derivano.*

(For detailed classification, see p. xxv.)
 (Voir le système de classification, p. xxv.)
 (Für detaillirte Classification, siehe Seite xxv.)
 (Vedasi il sistema di classificazione, p. xxv.)

- 1-9 NEW SOUTH WALES EXHIBITION COM-
 MISSION; WAUGH, D. L., Kiama; HILL, E. S.;
 HIGGINS, J., Berrico, Gloucester; RUDDER, E. W.,
 Macleay River District; HETHERINGTON, W.
 C., Melville, near West Maitland; LODER,
 G. T., Wiley Flat, Singleton; MOSS, H.,
 Shoalhaven; COLE, W., & Son, Tomago,
 Hunter River District

Arrowroot
Arrowroot
 Pfeilwurz
Arrorut

- 10-12 NEW SOUTH WALES EXHIBITION COM-
 MISSION; FRASER, P. L., Grafton; MORT, T. S.,
 Greenoaks, Sydney
 Maize flour and meal; wheat flour
Farine de maïs; farine de blé
 Maismehl; Weizenmehl
Fiore di granturco; fiore di frumento

- 13 NEW SOUTH WALES EXHIBITION COMMISSION
 MOORE, C.

Fecula of the Castanospermum australe
Fécules du Castanospermum australe
 Stärke, von dem *Castanospermum australe*
 gewonnen
Fecola del Castanospermum australe

- 14-22 LODER, G. T., Wiley Flat, Singleton;
 NEW SOUTH WALES EXHIBITION COMMISSION;
 COBCROFT, A., Charlton; RUDDER, E. W.;
 DANGAR BROS.; HILL, E. S.; BROWN, J.;
 FRANKLAND, G. J., Mowbray, Paterson
 River; MACARTHUR, J. & W., Camden Park

Maize
Mais
 Mais
Granturco

- 23-31 EALES, J., Duckenfield, Hunter River
 District; DALTON BROS.; TRAPPIT, W. T.;
 RICHARDS, —, Orange; LODER, G. T., Sin-
 gleton; NEW SOUTH WALES EXHIBITION
 COMMISSION; DANGAR BROS.; BROWN, J.;
 MCLENNAN, J.

Wheat
Froment
 Weizen
Fromento

- 32 DANGAR BROTHERS

Oats
Avoine
 Hafer
Avena

- 33-35 FRANKLAND, G. J., Mowbray, Paterson
 River; GOLBY, A., JUN., Largs, West Mait-
 land; BROWN, J.

Barley
Orge
 Gerste
Orzo

- 36 BAWDEN, T., Grafton, Clarence River Dis-
 trict

Starch
Amidon
 Stärke
Amido

- 37-38 WYNDHAM, J., Dalwood, Branxton;
 FRANKLAND, G. J., Mowbray, Paterson River

Lucerne seed
Graine de luzerne
 Luzernsamen
Semi di cedrangola

- 39 NEW SOUTH WALES EXHIBITION COMMISSION
 Seeds of the comboli, used by the aborigines
 as food

*Graines du comboli, servant d'aliment aux
 indigènes*
 Comboli-Samen, von den Eingebornen als
 Nahrung gebraucht
Semi del comboli usati per cibo dagli aborigeni

CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie et de la Pâtisserie.

Brot und Backwerk.

Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 HARDIE & MITCHELL, Sydney

Biscuits

Biscuits

Zwieback

Biscotti

2 MOORE, CHARLES, Botanic Gardens, Sydney

Biscuits

Biscuits

Zwieback

Biscotti

CLASS LXX.

Meat and Fish.

Viandes et Poissons.

Fleisch und Fisch.

Carne e Pesce.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LODER, G. T., Wyley Flat, Singleton

Flich of colonial bacon; ham

Flèche de lard de la colonie; jambon

Speckseiten; Schinken

Costereccio di porco salato della colonia; prosciutto

2-4 LANG, E. W., East Maitland; BELL, HENRY, Sydney; AUSTRALIAN MEAT COMPANY, Rarmornie, Clarence River District

Preserved meats

Viandes conservées

Conservirtes Fleisch

Carni conservate

5 WHITEHEAD & Co., Mossman's Bay, Sydney

Essence of beef

Extrait de viande (bœuf)

Rindfleisch-Extract

Estratto di manzo

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruit.

Gemüse und Obst.

Ortaggi e Frutto.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 MOORE, MRS. CHARLES, Sydney

Olives; guava jelly

Olives; gelée de goyave

Oliven; Gujava-Gelee

Ulive; conserva di guava

2 SELWYN, MRS., Grafton

Raisins

Raisins secs

Rosinen

Uva seccata

3 LODER, G. T., Wyley Flat, Singleton

Dried quinces and peaches, jellies and jams

Coings et pêches conservés, confitures et gelées

Getrocknete Quitten und Pfirsichen; Gelees

und Eingemachtes

Cotogne e pesche seccate; gelatine e conserve

4 COOPER, SIR DANIEL, BART.

Walnuts, from Camden Park

Noix provenant de Camden Park

Wallnüsse von Camden Park

Noci dal Camden Park

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Conditordwaaren.

Condimenti e Stimolanti; Zucchero e Confettura.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 BUNKER, MRS., Liverpool

Colonial grown cayenne

Poivre de Cayenne indigène

Cayenne-Pfeffer, in der Colonie gebaut

Pepe rosso della colonia

- 2 HASMOTT, J. H., Sydney
Chutnee and curry powder
Chutnee et curry-powder (stimulants)
Indische Pickles und Curry-Pulver
Chutnee e polvere curry
- 3 AUSTRALIAN SUGAR REFINING COMPANY,
Sydney
Colonial sugar
Sucre de la colonie
Zucker aus der Colonie
Zucchero della colonia
- 4 O'NEIL, THOMAS, Sydney
Confectionery
Objets de confiserie
Conditiorwaaren
Confetture
- 5 MONK, D. J., Sydney
Vinegar
Vinaigre
Essig
Aceto
- 6 SCOTT, THOMAS, Point Clare, Brisbane Water
Colonial sugar
Sucre de la colonie
Zucker aus der Colonie
Zucchero della colonia
- 7 HOLLAND, REV. E., Port Macquarie
Colonial sugar
Sucre de la colonie
Zucker aus der Colonie
Zucchero della colonia
- 8-11 NEW SOUTH WALES EXHIBITION COMMISSION; RUDDER, E. W., Macleay River District;
MILLER, T. H., Maitland; NOWLAN, J. R.,
Eelah, West Maitland
Sugar canes, and samples of sugar
Cannes à sucre, et spécimens de sucres
Zuckerrohr und Zuckerproben
Canne di zucchero, e campioni di zucchero

CLASS LXXIII.

Fermented Drinks.
Boissons fermentées.
Geistige Getränke.
Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

- 1-14 CARMICHAEL, G. T. & J. B., Poryhyry,
Seaham; CASWELL, W. S., Moruya; GOVERNMENT OF NEW SOUTH WALES; LINDEMAN, DR. JOHN; SCOTT, WALTER, Wallalong;
DOYLE, J. F., Lochinvar; IRELAND, J. N.,
Seaham; KELMAN, MESSRS., Kirkton, near
Branxton; OGILVIE, MRS. M., Woollahra;
GLENNIE, J., Gresford, Paterson; REMMINGTON, A., Hardwicke; STEWART & Co., Sydney;
WYNDHAM, MESSRS., Dalwood; JENKINS, R. L., Nepean Towers
Colonial wines—*Vins de la colonie*
Weine der Colonie—*Vini della colonia*
- 15 TOOTH, R. & F., Sydney
Malt—*Malte*—Malz—*Malzo*
- 16 COOPER, SIR DANIEL, BART.
Colonial wines—*Vins de la colonie*
Weine der Colonie—*Vini della colonia*

GROUP VIII. CLASS LXXXI.

Useful Insects.

Insectes utiles.

Nützliche Insecten.

Insetti Utili.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

- 1 ASSELIN & BRADY, Sydney
Silk cocoon comb—*Rayon à soie*
Seidenkamm—*Bozzolo da seta*

NEW ZEALAND.

GROUP II. — CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerkunst und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 THE NEW ZEALAND COMMISSION

Copies of the newspapers and publications
issued in 1866*Journaux, etc. publiés en 1866*

Zeitungen und Tagesliteratur vom Jahre 1866

Giornali ed altre pubblicazioni del 1866

CLASS IX.

Photographic Proofs and Apparatus.

*Épreuves et Appareils de Photographie.*Photographische Proben und Appa-
arate.*Prove e Apparatî Fotografici.*

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 HEAPHY, CHARLES

Photographs

Épreuves photographiques

Photographien

Fotografie

2 MARSHMAN, JOHN

Photographs

Épreuves photographiques

Photographien

Fotografie

3 WILSON, W. C.

Photographs

Épreuves photographiques

Photographien

Fotografie

CLASS XIII.

Maps and Geographical and Cosmo-
graphical Apparatus.*Cartes et Appareils de Géographie et de
Cosmographie.*Karten und geographische und cosmo-
graphische Apparate.*Mappe e Apparatî Geografici e Cosmo-
grafici.*

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 HAAST, JULIUS, K.F.J.I., Ph.D., F.G.S.,
Geologist for the Provincial Government
of Canterbury, New Zealand1. Geological section of the Moorhouse
Tunnel, Christchurch and Lyttelton Railway,
across the Caldera Wall of Bank's Penin-
sula, Province of Canterbury, New Zealand ;
engineering details by E. Dobson, C.E. (Pro-
vincial Engineer) ; scale 20 feet to 1 inch,
horizontal and vertical*Section géologique du tunnel de Moorhouse sur
le chemin de fer de Christchurch et Lyttelton,
sur une échelle de 20 pieds au pouce*Geologische Section des Moorhouse-Tunnels
auf der Christchurch- und Lyttelton-Eisen-
bahn ; Maassstab: 20 Fuss auf 1 Zoll*Sezione geologica del tunnel di Moorhouse, sul
cammino ferrato di Christchurch e Lyttelton ;
scala di 20 piedi al pollice*2. Geological section of the Moorhouse Tun-
nel ; scale 200 feet to 1 inch, horizontal
and vertical*Section géologique du tunnel de Moorhouse,
sur une échelle de 200 pieds au pouce*Geologische Section des Moorhouse-Tunnels ;
Maassstab: 200 Fuss auf 1 Zoll*Sezione geologica del tunnel di Moorhouse ;
scala 200 piedi al pollice*

3. View of the interior of the Caldera Wall, as seen from Lyttelton Harbour (photograph)

Vue de l'intérieur du Caldera Wall, prise du côté du port de Lyttelton (photographie)

Ansicht des Innern des Caldera Wall, von dem Hafen von Lyttelton aus gesehen (Photographie)

Veduta interiore del Caldera Wall, prenduta dal porto di Lyttelton (fotografia)

4. View of the exterior of the Caldera Wall, as seen from the Heathcote Valley, north side of Bank's Peninsula (photograph)

Vue de l'extérieur du Caldera Wall, prise du côté de la vallée de Heathcote (photographie)

Ansicht der Aussenseite des Caldera Wall, von dem Heathcote-Thale (nördliche Seite von Bank's Halbinsel) aus gesehen (Photographie)

Veduta esteriore del Caldera Wall, prenduta dalla valle di Heathcote (fotografia)

5. Two hundred and eighty geological and mineralogical specimens showing the lava-streams, dykes, and beds passed through by the Moorhouse Tunnel, illustrating the structure of the Caldera Wall

Deux cent quatre-vingt spécimens géologiques et minéralogiques pour démontrer les filons, gîtes, etc. à travers lesquels passe le tunnel de Moorhouse

Zwei hundert und achtzig geologische und mineralogische Proben, um die Lavaströme, Dämme und Betten darzustellen, durch welche der Moorhouse-Tunnel geht

Dugenti ottanta saggi geologici e mineralogici, mostrando le correnti di lava, i fossi ed i letti traversati dal tunnel di Moorhouse

2 CASS, THOMAS, Chief Surveyor of the Provincial Government of Canterbury, New Zealand

6. Map of Bank's Peninsula, Canterbury, compiled and drawn under the authority of the Provincial Government, December 1866

Carte de la presqu'île de Bank, à Canterbury, construite en 1866 sous l'autorité du Gouvernement de la Colonie

Karte von Bank's Halbinsel, in Canterbury, zusammengestellt und gezeichnet unter der Aufsicht der Regierung der Colonie in December 1866

Carta della penisola di Bank, a Canterbury, costruita e disegnata nel 1866, coll' autorità del Governo Provinciale

GROUP IV.—CLASS XXVIII.

Thread and Fabrics of Flax, Hemp, &c.

Fils et Tissus de Lin, Chanvre, etc.

Zwirn und Fabricate von Flachs, Hanf

u. s. w.

Filo e Tessuti di Lino, Canapa, ecc.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 SIMMONDS, P. L., London

Maori rug

Couverture maori

Maorische Decke

Mantello usato dai Maori

GROUP V.—CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

Produits agricoles (non-alimentaires) de facile conservation.

Leicht conservirbare landwirthschaftliche Producte (nicht zur Nahrung dienend).

Prodotti agrari (non usa per cibo), facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 ANSTEX, G. A.

Fleeces of wool

Toisons de laine

Vliesse

Velli

CLASS XLII.

Products of Shooting, Fishing, of the Earth, &c.

Produits de la Chasse, de la Pêche et des Cueillettes.

Producte der Jagd, des Fischfangs, der Erde u. s. w.

Prodotti della Caccia, della Pesca e della Terra, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 MICHAEL, MAJOR, Madras Staff Corps

Leg-bones of the *Dinornis maximus* (Owen), or moa

Os d'une jambe du moa

Beinknochen des *Dinornis maximus* (Owen) oder Moa

Osse di gamba del moa

NOVA SCOTIA.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillierte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 DAY, FORSHAW
 'The Grand Pré' and 'Louisberg'
 'Le Grand Pré' et 'Louisberg'
 'Der grosse Pré' und 'Louisberg'
 Il 'Gran Pré' e 'Louisberg'

- 2 LAKE, CHARLES

CLASS II.

Other Paintings and Drawings.
Peintures Diverses et Dessins.
 Andere Gemälde und Zeichnungen.
Altri Dipinti e Disegni.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillierte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 HARDY, CAPTAIN, R.A.
 Drawings and model
Dessins et modèle
 Zeichnungen und Modell
Disegni e modello
- 2 LYTLETON, CAPTAIN WESTMACOTT
 View of Halifax
Vue de Halifax
 Ansicht von Halifax
Veduta di Halifax
- 3 MILLER, MISS

CLASS IV.

Architectural Designs and Models.
Dessins et Modèles d'Architecture.
 Architectonische Zeichnungen und Modelle.

Progetti e Modelli Architetonici.
 (For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillierte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 STERLING, DAVID
 Architectural design—*Dessin d'architecture*
 Architectonischer Entwurf
Progetto architettonico

GROUP II.—CLASS VI.

Printing and Books.
Produits d'Imprimerie et de Librairie.
 Drucksachen und Bücher.
Stampa e Libri.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillierte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 FORRESTER, ALEXANDER, D.D.
 Educational work
Ouvrage d'éducation
 Buch für Erziehung
Opera d'educazione
- 2 LAWSON, GEORGE
 Journal of agriculture
Journal de l'agriculture
 Landwirtschaftliches Journal
Giornale agrario
- 4 MURDOCH, BEAMISH
 History of Nova Scotia
Histoire de la Nouvelle Écosse
 Geschichte von Nova Scotia
Storia della Nova Scozia
- 5 MULLHOLLAND, WILLIAM
 Nova Scotia Arithmetic
Livre d'Arithmétique
 Arithmetik für Nova Scotia
Aritmetico della Nova Scozia
- 6 NOVA SCOTIA INSTITUTE OF NATURAL SCIENCE
 Journal, 3 volumes—*Journal de l'institution*
 Journal, drei Bände—*Giornale, 3 volumi*
- 7 RAND, THEODORE H.
 Journal of education
Journal de l'enseignement
 Pädagogisches Journal
Giornale di educazione

CLASS VII.

Paper, Stationery; Binding; Painting and Drawing Materials.

Objets de Papeterie; Reliures; Matériel des Arts de la Peinture et du Dessin.

Papier, Papierwaaren; Einbände; Materialien zum Malen und Zeichnen.

Carta, Cartoleria; Rilegatura; Materiali per Dipingere e Disegnare.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 STAPLES

Copybooks—*Cahiers*

Musterbücher—*Scartafacci*

CLASS IX.

Photographic Proofs and Apparatus.

Épreuves et Appareils de Photographie.

Photographische Proben und Apparate.

Prove e Appareati Fotografici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 CHASE, W.

Photographs—*Épreuves photographiques*

Photographien—*Fotografie*

2 ROGERS, JOSEPH S.

Photographs (views in Halifax)

Épreuves photographiques (vues de la ville de Halifax)

Photographien (Ansichten von Halifax)

Fotografie (vedute di Halifax)

3 WOOD, J. P.

Ferreetypes—*Ferreetypes*

Ferreetypen—*Ferreetipi*

CLASS X.

Musical Instruments.

Instrumente de Musique.

Musikalische Instrumente.

Strumenti Musicali.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 FRASER, W., & SON

Piano—*Piano*

Piano—*Pianoforte*

CLASS XII.

Mathematical Instruments and Apparatus for Teaching Science.

Instrumente de Précision et Matériel de l'Enseignement des Sciences.

Mathematische Instrumente und Apparate für den wissenschaftlichen Unterricht.

Strumenti Matematici e Appareati per insegnare le Scienze.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 CHISHOLM, A. M.

Mathematical and mechanical scale

Règle graduée pour l'évaluation exacte des longueurs

Maassstäbe für Mathematiker und Mechaniker

Scale matematiche e meccaniche

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

Cartes et Appareils de Géographie et de Cosmographie.

Karten und geographische und cosmographische Apparate.

Mappe e Appareati Geografici e Cosmografici.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 MCKINLAY, A. & W.

Map of Nova Scotia

Carte de la Nouvelle Écosse

Karte von Neu-Schottland

Mappa della Nuova Scozia

GROUP III.—CLASS XIV.

Fancy Furniture.

Meubles de Luxe.

Luxusmöbel.

Mobili di Lusso.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 CURRIE

School desk and stool

Pupitre et siège d'école

Schulbank

Scrivania e sedia da scuola

2 NEWCOMB, G.

Fancy chairs (India-work seats)

Chaises de fantaisie (avec sièges fabriqués en ouvrage indien)

Luxusstühle (mit Sitzen von Indianischer Arbeit)

Sedie di lusso (sedili di lavoro indiano)

3 McEWAN & SON

Cabinet made of native wood

Petit meuble fait de bois indigène

Secretair, von einheimischem Holze gemacht

Stipo in legno indigeno

CLASS XV.

Upholstery and Decorative Work.

Ouvrages de Tapissier et de Décorateur.

Tapezirer- und Decorateur-Arbeit.

Tappezzerie e Lavori di Decoramento.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 DAY, FORSHAW

Nova Scotia and Provincial arms (flag)

Pavillon des armes de la Nouvelle Écosse et de la Province

Die Wappen von Nova Scotia und der Provinz (Fahne)

Gli stemmi della Nova Scozia e Provinciali (stendardo)

CLASS XXVI.

Leather Work, Fancy Articles, and Basket Work.

Objets de Maroquinerie, de Tabletterie et de Vannerie.

Lederwaaren, Modeartikel und Korbmacherwaaren.

Lavori in Pelle, Oggetti di Lusso, e Lavori in Vimini.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 McDougall, Miss KATE

Fancy articles—*Objets de fantaisie*Modeartikel—*Oggetti di lusso*

2 PAYNE, Miss E. H.

Basket, cane work

Panier de bambou

Korb aus Rohr

Paniere di canna

3 BEGG, Mrs.

Straw work—*Ouvrages de paille*Stroharbeit—*Lavori in paglia*

3A FARRIS, JOHN

Indian fancy articles

Objets indiens de fantaisie

Indische Modeartikel

Oggetti di fantasia indiani

4 TURNER, Miss

Straw work—*Ouvrages de paille*Stroharbeit—*Lavori in paglia*

GROUP IV.—CLASS XXVIII.

Yarn and Fabrics of Flax.

Fils et Tissus de Lin.

Garn und Fabricate aus Flachs.

Filo scempio e Tessuti di Lino.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 McCURDY, Miss ELIZABETH

Thread—*Fils*Zwirn—*Filo*

CLASS XXX.

Carded Wool and Wool Fabrics.

Fils et Tissus de Laine Cardée.

Gekrämpelte Wolle und wollene

Zeuge.

Lana Cardata e Tessuti di Lana.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 THE LOCAL COMMITTEE

Nova Scotia cloths

Drap de fabrication indigène

Tuch von Nova Scotia

Panni di Nova Scozia

CLASS XXXIII.

Lace, Net, Embroidery, and Small Ware Manufactures.

Dentelles, Tulle, Broderies et Passementeries.

Spitzen, Netze, Stickereien, Posamentirwaaren.

Trina, Tulle, Ricami, e Mercerie.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 FAWSON, Miss

Embroidery (imperial arms)

Broderie (armes du Royaume-Uni)

Stickerei (Reichswappen)

Ricamo (stemma imperiale)

2 MORRIS, Miss

Embroidery (Nova Scotia arms)

Broderie (armes de la Nouvelle Écosse)

Stickerei (Wappen von Nova Scotia)

Ricamo (stemma della Nova Scozia)

3 ROMANS, THE MISSES

Crochet-work—*Broderie au crochet*
Häkelaarheit—*Lavori di croce*

4 BLANCHARD, MISS

Tattooing
Broderies
Häkelei
Ricami

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidung für beide Geschlechter.

Abbigliamenti per ambe i Sessi.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 BOURDILLAUT, MRS.

Manufactured furs—*Fourrures confectionnées*
Verarbeitete Pelze—*Pelliccie manifatturate*

2 WITBROW, J.

Men's clothes—*Habits d'hommes*
Kleider für Männer—*Vesti da uomo*

CLASS XXXVIII.

Travelling Articles and Camp Equipage.

Objets de Voyage et de Campement.

Gegenstände für die Reise und das Feldlager.

Oggetti per Viaggio ed Equipaggio da Campo.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 STARR & SONS

Implements for geologists
Isntruments pour géologues
Geologische Geräthe
Attrazzi per geologi

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Berg- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(*Voir le système de classification, p. xix.*)

(Für detaillirte Classification, siehe Seite xix.)

(*Vedasi il sistema di classificazione, p. xix.*)

1 ACADIA CHARCOAL IRON COMPANY

Ores, pig, bars, cutlery, &c.

Minerais, fer en gueuses, en barres, coutellerie
Erze, Eisensau, Stäbe, Messerschmiedewaaren
etc.

Minerali, in pane, in barre, coltellineria, ecc.

2 ARCHBOLD, EDWARD P.

Column of coal from Little Glace Bay Mines

Colonne de charbon des houillères Little Glace Bay

Eine Säule aus Kohle von den Little-Glace-Bai-Gruben

Colonna di carbon fossile delle miniere di Little Glace Bay

3 ARCHIBOLD, HON. S. D.

Column of coal from Gowrie Mines

Colonne de charbon des houillères de Gowrie

Eine Säule aus Kohle von den Gowrie-Gruben

Colonna di carbon fossile delle miniere di Gowrie

4 BARNES, WILLIAM

Collection of carboniferous fossils; brown hæmatite from Brookfield

Collection de fossiles carboneuses; hématite brune de Brookfield

Eine Fossilienammlung aus der Kohlenformation; Brauneisenstein von Brookfield

Collezione di fossili carboniferi; ematite bruna di Brookfield

5 BELLONI, ROBERT

Column of coal from Cow Bay Mines

Colonne de charbon des houillères de Cow Bay

Eine Säule aus Kohle von den Cow-Bai-Gruben

Colonna di carbon fossile delle miniere di Cow Bay

6 BILL & SKERRY

Axes—*Haches*

Aexte—*Asce*

6A BLACKLOCK

Building stones—*Pierres à bâtir*

Bausteine—*Pietre tagliate*

6B CORLEY

Axes—*Haches*

Aexte—*Asce*

7 DUVAR, H.

Manganese—*Manganèse*

Mangan—*Manganese*

8 GENERAL MINING ASSOCIATION (R. H. BROWN, Agent)

Column of coal from Sydney Mines
Colonne de charbon des houillères de Sydney
 Eine Kohlensäule von den Sydney-Gruben
Colonna di carbon fossile delle miniere di Sydney

9 GENERAL MINING ASSOCIATION (James Hudson, Agent)

Column of coal from Albion Mines
Colonne de charbon des houillères Albion
 Eine Kohlensäule von den Albion-Gruben
Colonna di carbon fossile delle miniere di Albion

10 HAMILTON, P. S. (Gold Commission)

Collection of nuggets and auriferous quartz from the various gold fields of Nova Scotia
Collection d'or et de quartz aurifères des divers gîtes aurifères de la Nouvelle Écosse
 Eine Sammlung von Gold und goldführendem Quarz aus den verschiedenen Goldgruben Nova Scotia's

Collezione di blocchetti d'oro, e di quarzi auriferi delle varie miniere della Nova Scozia

11 HONEYMAN, DAVID, D.C.L.

Collection of rocks, minerals, ores, and fossils, with maps and sections illustrating the geology of Nova Scotia

Collection de roches, minéraux, minerais et fossiles, avec cartes et coupes, résumant la géologie de la Nouvelle Écosse

Eine Sammlung von Felsarten, Mineralien, Erzen und Fossilien, mit Karten und Durchschnitten zur Erklärung der geologischen Formation von Nova Scotia

Collezione di rocce, minerali, minerali metalliche e fossili, con mappe e profili illustrativa della geologia della Nova Scozia

12 HOW, HENRY, D.C.L.

Collections of minerals and ores, scientific and economic, illustrating the mineralogy of Nova Scotia

Collections de minéraux et de minerais pour les usages scientifiques et industrielles, résumant la minéralogie de la Nouvelle Écosse

Sammlungen von Mineralien und Erzen, wissenschaftlich und öconomisch, zur Erklärung der Mineralogie von Nova Scotia

Collezione di minerali, minerali metallici scientifica ed economica, illustrative della mineralogia della Nova Scozia

13 JACKSON, JAMES W.

Oil coal and oil from the Albion coal-fields
Bitume et huiles des houillères Albion
 Oelkohle und Oel von den Albion-Kohlfeldern
Carbon fossile oleifero e olio delle miniere di carbon fossile di Albion

15 MURRAY, ROBERT

Manganese—*Manganèse*
 Mangan—*Manganèse*

16 NASH, JOHN D.

Manganese—*Manganèse*
 Mangan—*Manganèse*

17 OXLEY, J. B.

Brown hæmatite and specular iron ore
Hématite brune, et minéral de fer spéculaire
 Braun- und Rotheisenstein
Ematite scura e metallo di ferro speculare

18 PETERS, HENRY

Collection of building stones
Collections de pierres de construction
 Sammlung von Bausteinen
Collezioni di pietre da costruzione

18A POOLE, HENRY

Coal—*Houille*
 Kohle—*Carbonfossile*

19 STARR, D. H., & SONS

Patent skates and mining implements
Patins brevetés, et outils pour l'exploitation des mines
 Patentirte Schlittschuhe und Bergbaugeräthe
Pattini patentati e arnesi per miniere

20 SUTHERLAND, WILLIAM

Specimens of limestone from Cherta Basin
Spécimens de pierre calcaire de Cherta Basin
 Exemplare von Kalkstein vom Cherta Basin
Saggi di calcarea dal Bacino di Cherta

21 WEBSTER, MRS.

Collection of minerals—*Collection de minéraux*
 Sammlung von Mineralien
Collezione di minerali

21A WESLEY & SANDFORD

Marbles—*Marbres*
 Marmor—*Marmo*

22 WOOD, JAMES J.

Polished anhydrite—*Anhydrite polie*
 Polirter Anhydrit—*Anidrito lustrato*

CLASS XLI.

Products of the Cultivation of Forests and of the Trades appertaining thereto.

Produits des Exploitations et des Industries Forestières.

Producte der Waldcultur und der dazu gehörigen Gewerbe.

Prodotti della Cultura della Foreste e Industrie che vi attengono.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 DEXTER, J.

Specimens of wood for cabinet work and building purposes

Spécimens de bois pour l'ébénisterie et pour les constructions

Exemplare von Holz für Kunstschreinerei und für Bauten

Saggi di legni per stipetteria ed usi di costruzione

2 WIER, BENJAMIN

Railway sleepers—*Traverses de chemin de fer*
 Eisenbahnschwellen—*Traverse da ferrovia*

3 HOW, HENRY, D.C.L.

Collection of Nova Scotia dried plants
Collection de plantes sèches de la Nouvelle Écosse
 Sammlung getrockneter Pflanzen von Nova Scotia
Collezione di piante secche di Nova Scozia

4 CUTLER, MRS. ELIZABETH

Collection of Nova Scotia grasses
Collection des graminées de la Nouvelle Écosse
 Sammlung der Gräser Nova Scotia's
Collezione di erbe di Nova Scozia

5 MCCURDY, MISS ELIZABETH

Collection of Nova Scotia grasses
Collection des graminées de la Nouvelle Écosse
 Sammlung der Gräser Nova Scotia's
Collezione di erbe di Nova Scozia

6 SAMPSON, MRS.

Collection of grasses
Collection des graminées
 Grassammlung
Collezione di erbe

CLASS XLII.

Products of Shooting and Fishing, &c.,
 and of the Earth obtained without
 Cultivation.

Produits de la Chasse, de la Pêche et des Cueillettes.

Producte der Jagd, des Fischfangs
 etc. und der Erde, erhalten ohne
 Cultur.

*Prodotti della Cuccia, della Pesca, ecc.,
 e della Terra.*

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 DOWNS, ANDREW

Stuffed Nova Scotia birds, and head of moose
 deer

*Oiseaux de la Nouvelle Écosse empaillés, et tête
 d'élan*

Ausgestopfte Vögel von Nova Scotia und
 Kopf des Musethieres (Elenanthier)

*Uccelli di Nova Scozia impagliati, e testa di
 alce*

2 GILPIN, BERNARD, M.D.

Furs and skins
Fourrures et pelleteries
 Pelze und Häute
Pellicce e pelli

4 JONES, J. M.

Fish in jars
Poissons conservés
 Fische in Töpfen
Pesci in giarre

5 HAMILTON, CHARLES, M.D.

Wax—*Cire*
 Wachs—*Cera*

6 HILL, H. P.

Maple sugar—*Sucre d'érable*
 Ahornzucker—*Zucchero di acero*

CLASS XLIII.

Agricultural Products (not used as
 Food) easily preserved.

*Produits Agricoles (non-alimentaires)
 de facile Conservation.*

Leicht conservirbare landwirthschaftliche
 Producte (nicht zur Nahrung
 gebraucht).

*Prodotti Agrari (non usati per Cibo)
 facilmente conservati.*

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 MOYLE, H. M.

Flax—*Lîn*
 Flachs—*Lino*

2 COMMISSION, N. S.

Tobacco—*Tabac*
 Tabak—*Tabacco*

CLASS XLVI.

Leather and Skins.

Cuirs et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 COWIE, A., & SONS

Leather—*Cuir*
 Leder—*Cuoio*

2 COMMISSIONERS OF THE COLONY

Robes (bear skin)

Robes faites de peaux d'ours

Kleider von Bärenfellen

Abiti in pelle d'orso

GROUP VI.—CLASS LIV.

Machine Tools.

Machines-Outils.

Maschinen-Werkzeuge.

Aarnesi Macchine.

(For detailed classification, see p. xxiii.)

(Voir le système de classification, p. xxiii.)

(Für detaillirte Classification, siehe Seite xxiii.)

(Vedasi il sistema di classificazione, p. xxiii.)

1 SYMONDS, W. S., & Co.

Gold quartz crushing machine

Machine à broyer le quartz aurifère

Maschine zum Zerstampfen des goldführenden
 Quarzes

Macchina stritolatrice pel quarzo aurifero

CLASS LXI.

Carriages and Wheelwrights' Work.

Carrosserie et Charronnage.

Kutschen und Wagnerarbeit.

Carrozze e Ruote.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 DE WOLFE, J. M.

Pony phaeton

Phaeton, voiture à petit cheval

Ein Phaeton für Ponies (kleine Pferde)

Faeton a chinee

2 O'BRIEN

Sleigh

Traineau

Schlitten

Slitta

CLASS LXII.

Harness and Saddlery.

Bourrellerie et Sellerie.

Pferdegeschirr und Sattlerwaaren.

 Oggetti da Sellaio.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 CHISHOLM, DANIEL

Set of harness

Harnais complet

Vollständiges Pferdegeschirr

Fornimento completo da cavalli

CLASS LXVI.

Navigation and Life Boats.

*Matériel de la Navigation et du**Sauvetage.*

Schiffahrt und Rettungsböte.

Navigazione e Barche di Salvazione.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 MOSELEY, E.

Ship models—*Modèles de bâtiments*Schiffsmodelle—*Modelli di navi*

2 ROBINSON, ALEXANDER

Top sail clews with patent thimbles, jib hanks

*Cargue-points de hunier, avec cosses brevetées**anneaux de foc*

Marssegelhorne mit patentirter Kausse, Klü-

verringe

*Punti di vela di gabbia con raduncie patentate,**gozze di fiocco*

3 JOHNSON, DUNCAN

Ship models—*Modèles de bâtiments*Schiffsmodelle—*Modelli di navi*

4 BATLEY

Steering apparatus

Appareil de gouvernail

Steuerapparat

Apparato per timoneggiare

5 CHAMBERS & Co.

Patent bushing for ships' blocks

Garnitures brevetées pour poulies de navires

Patentirte Scheibenringe für Schiffsblöcke

Apparecchi patentati per pulegge da nave

GROUP VII.—CLASS LXVII.

Cereals and other eatable Farinaceous Products, and the Products derived from them.

Céréales et autres Produits Farineux Comestibles, avec leurs Dérivés.

Getreide und andere essbare mehligte Producte und deren Educte.

Cereali ed altri Comestibili Farinacei, e Prodotti che ne derivano.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 NOVA SCOTIA COMMISSION

Wheat, oats, barley, rye, maize

Blé, avoine, orge, seigle, maïs

Weizen, Hafer, Gerste, Korn, Türkise

*Weizen**Frumento, avena, orzo, segale, gran turco*

2 HATTON

Seeds

Graines

Samen

Semenza

CLASS LXVIII.

Bread and Pastry.

Produits de la Boulangerie et de la Pâtisserie.

Brot und Pasteten.

Pane e Pasticceria.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 MOIRE, W. C.

Fancy bread (machine made)

Pain de fantaisie fabriqué à la mécanique

Verschiedene Arten Brot (mit einer Maschine gemacht)

Pan di lusso (fatto a macchina)

2 SCRIVENER

Biscuits

Biscuits

Zwieback

Biscottini

CLASS LXIX.

Fatty Substances used as Food.

Corps Gras Alimentaires.

Fette zur Nahrung dienende Substanzen.

Sostanze Grasse usate per Oibo.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 COMMISSIONERS OF NOVA SCOTIA

Annapolis cheese

Fromage d'Annapolis

Annapolis-Käse

Formaggio di Annapolis

CLASS LXX.

Meat and Fish.

Viandes et Poissons.

Fleisch und Fisch.

Carni Pesci.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CHRISTIAN, N. P.

Preserved fish and lobsters

Poissons et homards conservés

Conservirter Fisch und Hummer

Pesce e ariguste conservate

2 HAMBLIN & BAKER

Preserved fish and lobsters

Poissons et homards conservés

Conservirter Fisch und Hummer

Pesce e ostriche conservate

3 TOWNSEND, WILLIAM S.

Salt fish

Poissons salés

Eingesalzener Fisch

Pesce salato

4 BARBER

Fish in tins

Poissons conservés

Fisch in Zinnbüchsen

Pesci in scatolini di latta

5 DICKSON, DAVID

Salmon

Salmon

Lachs

Salamoni

6 HARDY

Digby herrings

Harengs de Digby

Heringe von Digby

Aringhe da Digby

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruits.

Gemüse und Früchte.

Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 HAMILTON, CHARLES, M.D.

Apples

Pommes

Aepfel

Mele

CLASS LXXII.

Condiments and Stimulants; Sugar and Confectionery.

Condiments et Stimulants; Sucres et Produits de la Confiserie.

Gewürze und Reizmittel; Zucker und Zuckerwerk.

Condimenti, Stimolanti; Zucchero e Confetture.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 GRAY, PHILIP E.

Maple sugar—*Sucre d'érable*Ahornzucker—*Zucchero d'acero*

2 MOTT, JOHN P.

Chocolate and broma

Chocolat et broma

Chocolate und Broma

Ciocolata e broma

CLASS LXXIII.

Fermented Drinks.

Boissons Fermentées.

Geistige Getränke.

Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CROSSKILL, JAMES, & SON

Cordials—*Liqueurs*Magenstärkungen—*Liquori*

2 COSTIN, P.

Cyder—*Cidre*Apfelwein—*Sidro*

QUEENSLAND.

GROUP II.—CLASS VII.

Paper, Binding, &c.
Papeterie, Reliures, etc.
 Papier, Einbände etc.
Carta, Rilegature, ecc.

(For detailed Classification, see p. xiv.)

(*Voir le système de classification, p. xiv.*)

(Für detaillirte Classification, siehe Seite xiv.)

(*Vedasi il sistema di classificazione, p. xiv.*)

- 1 BELBRIDGE, W. C., Government Printer,
 Brisbane
 Bound books
Livres reliés
 Eingebundene Bücher
Libri rilegati

CLASS IX.

Photographs.
Épreuves de Photographie.
 Photographien.
Fotografie.

(For detailed classification, see p. xv.)

(*Voir le système de classification, p. xv.*)

(Für detaillirte Classification, siehe Seite xv.)

(*Vedasi il sistema di classificazione, p. xv.*)

- 1 CORPORATION OF MARYBOROUGH, Mary-
 borough, Queensland
 Photographs of local views
Épreuves photographiques, vues du pays
 Photographien von Local-Ansichten
Fotografie e vedute locali

CLASS XIII.

Maps, &c.
Cartes, etc.
 Karten etc.
Mappe, ecc.

(For detailed classification, see p. xvi.)

(*Voir le système de classification, p. xvi.*)

(Für detaillirte Classification, siehe Seite xvi.)

(*Vedasi il sistema di classificazione, p. xvi.*)

- 1 BRADY, J., Engineer of Harbours and Rivers,
 Brisbane
 Plan of Brisbane waterworks
Plan de l'établissement pour la distribution des
eaux à Brisbane
 Plan der Wasserwerke von Brisbane
Pianta dell' officina dell' acqua potabile a Bris-
bane

- 2 BRADY, J., Engineer of Harbours and Rivers,
 Brisbane
 Report on Brisbane waterworks
Rapport sur l'établissement pour la distribution
des eaux à Brisbane
 Bericht über die Wasserwerke von Brisbane
Rapporto dell' amministrazione dell' acqua
potabile a Brisbane

- 3 QUEENSLAND EXHIBITION COMMISSIONERS,
 Brisbane
 Atlas of Queensland—*Carte de Queensland*
 Atlas von Queensland—*Atlante di Queensland*

GROUP III.—CLASS XXV.

Perfumery.
Parfumerie.
 Parfumerie.
Profumerie.

(For detailed classification, see p. xvii.)

(*Voir le système de classification, p. xvii.*)

(Für detaillirte Classification, siehe Seite xvii.)

(*Vedasi il sistema di classificazione, p. xvii.*)

- 1 CARMICHAEL, L., Albert-street
 Perfumes and medical extracts
Parfums et extraits médicinaux
 Riechwasser und medicinische Extracte
Profumi ed estratti medicinali

GROUP IV.—CLASS XXVIII.

Wool.
Laine.
 Wolle.
Lana.

(For detailed classification, see p. xviii.)

(*Voir le système de classification, p. xviii.*)

(Für detaillirte Classification, siehe Seite xviii.)

(*Vedasi il sistema di classificazione, p. xviii.*)

- 1 ARCHER & Co., Gracemere, Rockhampton
 Fleeces—*Toisons*
 Fliesse—*Velli*
 2 FORBES, G. E., Colinton, Ipswich
 Wool—*Laine*
 Wolle—*Lana*
 3 GORE, BROTHERS, Gandill, Gordon Downs
 Wool—*Laine*
 Wolle—*Lana*
 4 HODGSON, ARTHUR,
 Woollen fabrics
Tissus de laine
 Wollene Stoffe
Tessuti di lana

- 5 LORD, E., Toowoomba, Queensland
Wool—*Laine*
Wolle—*Lana*
- 6 MARST, M. H., Ramridge, Andover
Wool, carded and combed; shawls
Laine cardée et peignée; châles
Wolle, gekrämpelt und gekämmt; Shawls
Lana cardata e pettinata; scialli
- 7 TOOTH, W. B., Clifton, Darlingdowns
Wool—*Laine*
Wolle—*Lana*

CLASS XXXVII.

Portable Weapons.
Armes Portatives.
Tragbare Waffen.
Armi Portatili.

(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)
(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

- 1 HILL, W., Brisbane
Native warlike implements
Instruments de guerre des indigènes
Kriegsgeräthe der Eingebornen
Attrazzi guerreschi indigeni

GROUP V.—CLASS XL.

Mining and Metallurgy.
Produits de l'Exploitation des Mines et
de la Métallurgie.

Berg- und Hüttenproducte.
Minière e Metallurgia.

(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)
(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

- 1 QUEENSLAND EXHIBITION COMMISSIONERS,
Brisbane
Marble table—*Table de marbre*
Marmortisch—*Tavola di marmo*
- 2 QUEENSLAND EXHIBITION COMMISSIONERS,
Brisbane
Marbles—*Marbres*
Marmor—*Marmi*
- 3 PETRIE, JOHN, Brisbane
Building stone—*Pierre à bâtir*
Baustein—*Pietra da costruzione*
- 4 TIFFIN, CHARLES, Colonial Architect, Brisbane
Building stone—*Pierre à bâtir*
Baustein—*Pietra da costruzione*
- 5 BOWEN EXHIBITION COMMITTEE, Bowen, Port
Denison
Samples of ores of district
Spécimens des minerais du district
Erzstufen des Districtes
Campioni dei minerali metalliferi del distretto

- 6 CLARKE, CHARLES, Warwick, Queensland
Coal from Warwick
Houille de Warwick
Kohle von Warwick
Carbon fossile di Warwick
- 7 WALSH, W. A., M.L.A., Brisbane
Coal from Burrum River
Houille de la Burrum
Kohle vom Burrum-Fluss
Carbon fossile del fiume Burrum

- 8 QUEENSLAND EXHIBITION COMMISSIONERS,
Brisbane
Gold, 161 oz. 1 dwt. 18 grs., with casket
made of colonial wood
Or (d'un poids de 5·008 kilogrammes), et coffret
de bois indigène
Gold, 161 Unzen 42 Gr., mit Schmuckkästchen
aus einheimischem Holze
Oro, 5·008 chilogrammi, con serigno fatto di
legno della colonia

- 9 BOWEN EXHIBITION COMMITTEE, Bowen, Port
Denison
Gold, 1 oz. 3 dwts. 9 grs.
Or (d'un poids de 36·28 grammes)
Gold, 1 Unze 9 Gr.
Oro, 36·28 grammi

- 10 McLEAN, MESSRS. Brisbane
Horse-shoes and racing plates
Fers à cheval ordinaires et pour courses
Hufeisen, gewöhnliche und für Wettrennen
Ferri da cavallo, e piastrelle da corsa

CLASS XLI.

Products of the Cultivation of Forests.
Produits des Exploitations Forestières.
Producte der Waldcultur etc.
Prodotti della Coltura delle Foreste.

(For detailed classification, see p. xx.)
(*Voir le système de classification, p. xx.*)
(Für detaillirte Classification, siehe Seite xx.)
(*Vedasi il sistema di classificazione, p. xx.*)

- 1 PETTIGREW, WM., Brisbane
Pick and axe handles, and specimen of hand
saw work; Dundatha pine doors
Manches d'outils et spécimens de sciage à main ;
portes de sapin de Dundatha
Stiele für Hauen und Aexte, Proben von mit
der Hand ausgesägter Arbeit; Thüre aus
Dundatha-Fichte
Manichi di picconi e di ascia, e saggi di lavori
fatti colla sega a mano ; porte di pino Dun-
datha
- 2 CAMPBELL, R. P., Stradbroke Island, More-
ton Bay
Plank and root of cypress pine
Planche et racine de sapin-cyprès
Diele und Wurzel der Cypressen-Fichte
Asse e radice di pino cipresso

- 3 OLDHAM, THOMAS, Brisbane**
Swamp oak found 16 feet under bed of Brisbane river
Chêne de marais trouvé à une profondeur de 16 pieds sous le fleuve Brisbane
Sumpf-Eiche, gefunden 16 Fuss unter dem Bette des Brisbane-Flusses
Querce di palude trovata 16 piedi sotto l' alveo del fiume Brisbane
- 4 ALEXANDER, W. R., Brisbane**
Canes for baskets—*Cannes pour paniers*
Rohr für Körbe—*Canne per panieri*
- 5 QUEENSLAND EXHIBITION COMMISSIONERS**
(through Mr. W. Hill, Curator of Botanical Gardens), Brisbane
Specimens of colonial timber
Spécimens de bois de charpente indigènes
Muster von Bauhölzern der Colonie
Campioni di legname della colonia
- 6 MARST, MATTHEW H., Ramridge, Andover**
Myall wood—*Bois de Myall*
Wolle von Myall—*Legno di Myall*
- 7 CROOM, W. H., M.L.A., Toowoomba**
Specimens of colonial timber
Spécimens de bois de charpente indigènes
Muster von Bauhölzern der Colonie
Campioni di legname della colonia
- 8 HILL, W., Brisbane**
Turned woods; canes for walking-sticks
Bois tournés; cannes
Gedrechselte Hölzer; Rohr für Spazierstöcke
Legni torniti; canne per mazze
- 9 SIMMONDS, P. L., 8 Winchester-street, London**
Turned objects of colonial wood
Objets tournés de bois indigènes
Gedrechselte Gegenstände von Holze der Colonie
Objetti torniti di legno indigeno
- 3 BOWEN EXHIBITION COMMITTEE, Bowen, Port Denison**
55 bird skins—55 *peaux d'oiseaux*
55 Vögelbälge—55 *PELLI DI UCCELLI*
- 4 STEEL, Wm., Brisbane**
Dugong oil—*Huile de Dugong*
Dugongöl—*Olio di vacca marina (Dugong)*
- 5 BEACH, Brisbane**
12 Moreton Bay pearls
12 *perles de Moreton Bay*
12 Perlen aus der Moreton-Bai
12 *perle di Moreton Bay*
- 6 LOOKER, J. WALDO, Ballandool river, Queensland**
Chincona bark and leaf
Écorce et feuille de quinquina
Quinin-Rinde und Blätter.
Scorza e foglia di china.
- 7 HILL, W., Brisbane**
Wild roots and seeds used as food by aborigines
Racines et graines sauvages servant d'aliments aux aborigènes
Wilde Wurzeln und Samen, die von den Ureingebornen gegessen werden
Radici selvatiche e semi usati per cibo dagli indigeni
- 8 MITCHELL, D. C., Brisbane**
Moreton Bay chesnuts
Marrons de Moreton Bay
Kastanien von Moreton-Bai
Castagne di Moreton Bay
- 9 McMEOD, W., Brisbane**
Mackenzie beans
Fèves Mackenzie
Mackenzie-Bohnen
Fave Mackenzie
- 10 BREMNER, CAPTAIN J., Brisbane**
Bèche de mer
Bèche de mer
Bèche de mer
Bèche de mer

CLASS XLII.

Products of Shooting, Fishing, &c.
Produits de la Chasse, de la Pêche, etc.
Producte der Jagd, des Fischens etc.
Prodotti della Caccia, della Pesca, ecc.

(For detailed classification, see p. xx.)
(*Voir le système de classification, p. xx.*)
(Für detaillierte Classification, siehe Seite xx.)
(*Vedasi il sistema di classificazione, p. xx.*)

- 1 DIGGLES, S., Brisbane**
Drawings of birds
Dessins d'oiseaux
Zeichnungen von Vögeln
Disegni di uccelli

- 2 BOWEN EXHIBITION COMMITTEE, Bowen, Port Denison**
Collection of insects
Collection d'insectes
Sammlung von Insecten
Collezione di insetti

CLASS XLIII.

Agricultural Products not used as Food, &c.

Produits Agricoles, non-alimentaires.
Nicht essbare landwirthschaftliche Producte etc.
Prodotti Agrari non usati per Cibo, ecc.

(For detailed classification, see p. xx.)
(*Voir le système de classification, p. xx.*)
(Für detaillierte Classification, siehe Seite xx.)
(*Vedasi il sistema di classificazione, p. xx.*)

- 1 SAHL, C. L., & Co., Fenny Lawn Plantation, Ipswich**
Cotton
Coton
Baumwolle
Cotone

2 PANTON, late HON. JOHN, M.L.C.

Cotton

Coton

Baumwolle

Cotone

3 TOWNS, HON. R., Brisbane

Cotton

Coton

Baumwolle

Cotone

4 CHALLINOR, G. M., Ipswich, Queensland

Cotton

Coton

Baumwolle

Cotone

5 BOOTH, E. H., Brisbane

Cotton

Coton

Baumwolle

Cotone

6 BAILEY, W. G., Maryborough, Queensland

Cotton

Coton

Baumwolle

Cotone

7 BELL, REV. MARMADUKE, Brisbane

Cotton

Coton

Baumwolle

Cotone

8 BOWEN EXHIBITION COMMITTEE, Bowen, Port Denison

Cotton

Coton

Baumwolle

Cotone

9 HILL, W., Brisbane

Cotton

Coton

Baumwolle

Cotone

10 HILL, W., Brisbane

Textile fibres; barks for tanning

Fibres textiles; écorces tannantes

Gewebe fasern; Rinden zum Gerben

Fibre tessili; scorze tannine

11 EWART, WM., Brisbane

Bark and gum for tanning

Écorce et gomme pour le tannage

Rinden und Gummi zum Gerben

Scorza e gomma per concia

12 HILL, W., Brisbane

Tobacco

Tabac

Tabak

Tabacco

13 STEWART, H., Moggill, Brisbane

Tobacco

Tabac

Tabak

Tabacco

14 THOMPSON, J. MOLBON, Ipswich, Queensland

Tobacco—*Tabac*Tabak—*Tabacco*

15 FELGATE, J., Toowoomba, Queensland

Tobacco—*Tabac*Tabak—*Tabacco*

16 BELL, THOMAS, Brisbane

Snuff—*Tabac à priser*Schnupftabak—*Tabacco da naso*

17 ALEXANDER, W. R., Brisbane

Castor oil seeds—*Graines de ricin*Ricinus-Oelsamen—*Semi di ricino*

18 HILL, W., Brisbane

Castor oil seeds; senna leaves

Graines de ricin; feuilles de séné

Ricinus-Oelsamen; Sennesblätter

Semi di ricino; foglie di sena

19 HILL, W., Brisbane

Native barks for medicinal purposes

Écorces indigènes pour médicaments

Einheimische Rinden für medicinische Zwecke

Scorze indigene per usi medicinali

20 HILL, W., Brisbane]

Native jams

Confitures du pays

Einheimische Confituren

Conserve indigene

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 EWART, WM., Brisbane

Leather tanned with ironbark

Cuir tanné avec l'écorce de bois de fer

Leder, mit Eisenrinde gegerbt

Cuoio conciato con scorza di legno ferro

GROUP VI.—CLASS LXII.

Harness and Saddlery.

Bourrellerie et Sellerie.

Geschirr und Sattlerwaaren.

Arnesi e Selleria.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

1 GORRY, CHRISTOPHER, Ipswich, Queensland

Hunting saddle

Selle de chasse

Jagdsattel

Sella da caccia

GROUP VII.—CLASS LXVII.

Cereals, &c.
Céréales, etc.
 Getreide etc.
Cereali.

(For detailed classification, see p. xxv.)

(*Voir le système de classification, p. xxv.*)

(Für detaillirte Classification, siehe Seite xxv.)

(*Vedasi il sistema di classificazione, p. xxv.*)

- 1 CLARKE, CHARLES, & Co., Warwick, Queensland
 Wheat—*Blé*
 Weizen—*Frumento*

- 2 AGRICULTURAL & HORTICULTURAL SOCIETY,
 Toowoomba, Queensland
 Barley and oats—*Orge et avoine*
 Gerste und Hafer—*Orzo e avena*

- 3 HILL, W., Brisbane
 Rice, arrowroot, and tapioca
Riz, arrowroot et tapioca
 Reis, Arrowroot und Tapioca
Riso, arrowroot e tapioca

- 4 JOHNSTON, J., Brisbane
 Arrowroot—*Arrowroot*
 Arrowroot—*Arrorut*

- 5 CHAMP, T., Brisbane
 Arrowroot—*Arrowroot*
 Arrowroot—*Arrorut*

CLASS LXX.

Meat and Fish.
Viandes et Poissons.
 Fleisch und Fisch.
Carne e Pesce.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification, p. xxvi.*)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione, p. xxvi.*)

- 1 BLACKLAND, E. J., Toowoomba, Queensland
 Preserved meat
Viande conservée
 Preservirtes Fleisch
Carne conservata

CLASS LXXII.

Condiments and Stimulants; Sugar.
Condiments et Stimulants; Sucres.
 Gewürze und Reizmittel; Zucker etc.
Condimenti e Stimolanti; Zucchero, ecc.

(For detailed classification, see p. xxvi.)

(*Voir le système de classification, p. xxvi.*)

(Für detaillirte Classification, siehe Seite xxvi.)

(*Vedasi il sistema di classificazione, p. xxvi.*)

- 1 QUEENSLAND EXHIBITION COMMISSIONERS
 Brisbane
 Sugar
Sucre
 Zucker
Zucchero

- 2 HOPE, HON. LOUIS, Brisbane
 Sugar
Sucre
 Zucker
Zucchero

- 3 WARNER, J. S., Brisbane
 Coffee
Café
 Kaffee
Caffè

- 4 HILL, W., Brisbane
 Coffee
Café
 Kaffee
Caffè

- 5 GERLLE, J., Brisbane
 Cayenne pepper
Poivre de Cayenne
 Cayenne-Pfeffer
Pepe di Caienna

- 6 STEELE, WM., Brisbane
 Cayenne pepper
Poivre de Cayenne
 Cayenne-Pfeffer
Pepe di Caienna

- 7 CHUBB, C. F., Ipswich, Queensland
 Cayenne pepper
Poivre de Cayenne
 Cayenne-Pfeffer
Pepe di Caienna

- 8 IVORY, JAMES, Bandambah, Ipswich
 Cayenne pepper
Poivre de Cayenne
 Cayenne-Pfeffer
Pepe di Caienna

- 9 HILL, W., Brisbane
 Cayenne pepper
Poivre de Cayenne
 Cayenne-Pfeffer
Pepe di Caienna

- 10 HILL, W., Brisbane
 Cinnamon, ginger, preserved fruits and preserves
Cannelle, gingembre, fruits conservées et confitures
 Zimmet, Ingwer, eingemachte Früchte und Confituren
Cannella, tenzero, frutta conservate, e conserva

- 11 ORR, WM., Rockhampton, Queensland
 Jams and jellies
Confitures et gelées
 Confituren und Gelées
Conserva e siroppi

- 12 PIMPANA SUGAR COMPANY
 Sugar
Sucre
 Zucker
Zucchero

- 13 WHISK & TREVELLIAN, Oaklands
 Sugar
Sucre
 Zucker
Zucchero

ST. VINCENT.

GROUP III.—CLASS XXVI.

Leather Work, Fancy Articles, and Basket Work.

Objets de Maroquinerie, de Tabletterie et de Vannerie.

Lederwaaren, Modeartikel und Korbmacherwaaren.

Lavori in Pelle, Oggetti di Lusso, e Lavori in Vimini.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 LEWIS, HON. A.

Indian baskets

Paniers indiens

Indianische Körbe

Panieri indiani

GROUP IV.

Clothing (including Fabrics) and other Objects worn on the Person.

Vêtements (Tissus compris) et autres Objets portés par la Personne.

Kleidung (einschliesslich der Gewebe) und andere Bekleidungsgegenstände.

Panni (Tessuti inclusi) ed altri Oggetti portati indosso.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 CHECKLEY, R., M.D.

The various textile products of the island of St. Vincent

Produits textiles divers de l'île de St. Vincent

Die verschiedenen gewobenen Stoffe der Insel St. Vincent

I vari tessuti dell' isola S. Vincenzo

2 LEWIS, HON. A.

Walking sticks

Cannes

Spazierstöcke

Mazze

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Bergbau- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 ANDERSON, F.

Three balls of pozzolona

Trois boules de pouzzolane

Drei Bälle von Puzzolanerde

Tre balle di pozzolana

CLASS XLII.

Products of Shooting, Fishing, &c.

Produits de la Chasse, de la Pêche, etc.

Producte der Jagd, des Fischens etc.

Prodotti della Caccia, della Pesca, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 HUGGINS, P.

Stuffed fishes, corals, and sponges

Poissons empaillés, corails, éponges

Ausgestopfte Fische, Corallen und Schwämme

Pesci impagliati, coralli, spugne

GROUP VII.—CLASS LXVII.

Cereals and other Eatable Farinaceous Products.

Céréales et autres Produits Farineux Comestibles.

Getreide und andere essbare mehligte Producte.

Cereali ed altri Comestibili Farinacei.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 CLOKE, HON. E. L.

Arrowroot—*Arrowroot*

Arrowroot—*Arrorut*

2 COWIE, HON. D.

Arrowroot—*Arrowroot*

Arrowroot—*Arrorut*

CLASS LXXI.

Vegetables and Fruit.

Légumes et Fruits.

Gemüse und Früchte.

Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 HOWTAYNE, G. W.

Various vegetable products used as food, &c.

*Plantes diverses employées comme aliments, etc.*Verschiedene Vegetabilien, die zur Nahrung
und anderen Zwecken dienen*Vari prodotti vegetabili usati per cibo ed altro*

CLASS LXXII.

Condiments and Stimulants.

Condiments et Stimulants.

Gewürze und Reizmittel.

Condimenti e Stimolanti.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CROPPER, R. P.

Preparations of lime juice and orange syrup

*Préparations du jus de citron, et de sirop
d'orange*Preparationen von Citronensaft und Orangen-
syrup*Preparazioni di agro di limone e siroppo d'a-
rance*

GROUP VIII.—CLASS LXXXII.

Fish, Crustacea, and Mollusca.

Poissons, Crustacés et Mollusques.

Fische, Schellfische und Weichthiere.

Pesci, Crostacei, Molluschi.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

1 CROPPER, R. P.

The *Bulimus rosaceus*, in every stage, from
the egg to the perfect snail*Le Bulimus rosaceus, à divers périodes,
depuis l'œuf jusqu'au limaçon complet*Der *Bulimus rosaceus* in jeder Entwick-
lungsstufe, vom Ei bis zur vollkommenen
Schnecke*Il Bulimus rosaceus in ogni stadio, dall' uovo
alla chiocciola perfetta*

SOUTH AUSTRALIA.

GROUP II.—CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerkunst und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 GENERAL COMMITTEE

Newspapers published in the colony, statistics of the colony for 1865

Journaux publiés dans la colonie ; statistiques de 1865

Zeitungen, veröffentlicht in der Colonie, statistische Nachrichten der Colonie für 1865

Giornali pubblicati nella colonia ; statistiche della colonia pel 1865

CLASS IX.

Photographic Proofs and Apparatus.

Épreuves et Appareils de Photographie.

Photographische Proben und Apparate.

Prove e Apparatî Fotografici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 GENERAL COMMITTEE

Photographs of fruit-trees, by T. Duryea ; photographs of South Australian scenery ;

photographs of aborigines

*Épreuves photographiques d'arbres fruitiers par**T. Duryea ; épreuves photographiques de**paysages et des naturels de l'Australie du Sud*

Photographien von Fruchtbäumen von T.

Duryea ; Photographien von Süd-Austra-

lischen Landschaften ; Photographien von

Ureingebornen

*Fotografie di alberi fruttiferi da T. Duryea ;**fotografie delle campagne dell' Australia me-**ridionale ; fotografie degli aborigeni*

2 HALL, R., Adelaide

Twelve views of Adelaide scenery

Douze vues des environs d'Adelaide

Zwölf Ansichten der Gegend von Adelaide

Dodici vedute delle campagne di Adelaide

3 SCHOMBURGK, DR., Government Botanist

Photographs

Épreuves photographiques

Photographien

Fotografie

4 WALLAROO MINES, PROPRIETORS OF THE,

Wallaroo, Yorke's Peninsula

Photographs of the works

*Épreuves photographiques des travaux des**mines Wallaroo*

Photographien der Gruben

Fotografie delle officine

GROUP IV.—CLASS XXXVII.

Portable Weapons.

Armes Portatives.

Tragbare Waffen.

Armi Portatili.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 GENERAL COMMITTEE

A collection of native weapons

Armes des naturels de l'Australie

Eine Sammlung von Waffen der Eingebornen

Collezione di armi indigene

2 TOMSETT, W., Port Adelaide

A collection of native weapons from South

Australia and the Northern Territory

*Collezione d'armes des naturels de l'Australie**du Sud et du Territoire du Nord*

Eine Waffensammlung der Eingebornen von

Süd-Australien und dem nördlichen Ter-

ritorium

*Collezione di armi indigene dell' Australia me-**ridionale e del Territorio Settentrionale*

3 WALKER, DR., Protector of Aborigines

A collection of native weapons

Armes des naturels de l'Australie

Eine Waffensammlung der Eingebornen

Collezione di armi indigene

GROUP V.—CLASS XL.

Mining and Metallurgy.

*Produits de l'Exploitation des Mines et**de la Métallurgie.*

Bergbau- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 AYERS, THE HON. H., Burra Burra Mines

Specimens of copper ores

Spécimens de minerais de cuivre

Exemplare von Kupfererzen

Campioni di minerali di rame

- 2 ENGELHART, A., BURRA BURRA**
Specimens of copper ore
Spécimens de minerai de cuivre
Exemplare von Kupfererzen
Campioni di minerali di rame
- 3 ENGLISH AND AUSTRALIAN COPPER COMPANY,**
Smelting Works, Port Adelaide
Specimens of copper, illustrative of the process of smelting
Spécimens de cuivre pour démontrer le procédé de fonte
Exemplare von Kupfer zur Erklärung des Hüttenprocesses
Campioni di rame illustrativi del processo della fusione
- 4 GENERAL COMMITTEE**
A collection of fossils from Mount Gambier and River Murray Cliffs
Collection de fossiles du Mont Gambier, et des berges du fleuve Murray
Eine Fossiliensammlung vom Gambierberge und den Abhängen des Murray-Flusses
Collezione di fossili del Monte Gambier e dei dirupi sul fiume Murray
- 5 HANSON, CHIEF JUSTICE, ADELAIDE**
Fossil remains from Mount Gambier district
Fossiles du district du Mont Gambier
Fossilien aus dem Gambier-Bergdistrict
Avanzi fossili del distretto Monte Gambier
- 6 MOONTA MINES, PROPRIETORS OF THE, Yorke's Peninsula**
Specimens of copper ores
Spécimens de minerais de cuivre
Proben von Kupfererzen
Campioni di minerali di rame
- 7 MURNIE BISMUTH AND COPPER MINING AND PATENT SMELTING COMPANY, Spencer's Gulf**
Ingots and specimens of ores and metals
Lingots et spécimens de minerais et de métaux
Barren und Exemplare von Erzen und Metallen
Verghe e campioni di minerali metallici e metalli
- 8 SINGLETON, F. C.**
Specimens of ore obtained near Mount Barker
Spécimens de minerai provenant du Mont Barker
Erzstufen aus der Gegend des Barkerberges
Campioni di minerali metallici estratti presso il Monte Barker
- 9 SPRING CREEK MINING COMPANY, Flinders Range**
Specimens of copper ore
Spécimens de minerai de cuivre
Exemplare von Kupfererz
Campioni di minerale di rame
- 10 STUTELY, JOSEPH F., ADELAIDE**
A circular masonic table of marble and malachite
Table circulaire maçonnique de marbre et de malachite
Ein runder Tisch aus Marmor und Malachit
Tavola circolare massonica di marmo e malachita
- 11 TALISKER MINING COMPANY, near Rapid Bay**
Specimens of minerals and metals, sandstone, and fire-clay
Spécimens de minéraux et métaux, de grès et d'argile réfractaire
Exemplare von Mineralien und Metallen, Sandstein und feuerfestem Thon
Campioni di minerali metalli, arenaria, e argilla da fuoco
- 12 THOMAS, MRS., BURRA BURRA MINES**
Specimens of copper ore
Spécimens de minerai de cuivre
Exemplare von Kupfererz
Campioni di minerale di rame
- 13 WALLAROO MINES, PROPRIETORS OF THE, Yorke's Peninsula**
Specimens of copper ore and of clay-slate
Spécimens de minerai de cuivre et de schiste argileux
Exemplare von Kupfererz und Schiefer
Campioni di minerale di rame e di schisto argilloso
- 14 WALLAROO SMELTING WORKS, PROPRIETORS OF THE, Yorke's Peninsula**
Samples of coarse and refined copper, sulphur slag, fire-clay and fire-sand, and model of Hughes' kiln for roasting ores
Cuivre brut et affiné, scories de soufre, argiles et sables réfractaires; modèle du fourneau Hughes pour le grillage des minerais
Exemplare von rohem und raffiniertem Kupfer, Schwefelschlacke, feuerfestem Thon und Sand und Modell von Hughes' Ofen zum Rösten der Erze
Campioni di rame grezzo e raffinato, scorie di zolfo, argillo da fuoco, e rena da fuoco, e modello di fornace di Hughes per arrostiti i minerali
- 15 WHEAL COGLIN MINING COMPANY, near Cape Jervis**
Silver lead ore
Minerai de plomb argentifère
Silberhaltiges Bleierz
Metallo di piombo argentifero
- 16 WORTHING MINING COMPANY, River Bremer**
Specimens of copper ore
Spécimens de minerai de cuivre
Exemplar von Kupfererz
Campioni di minerale di rame
- 17 YETTA MINING COMPANY, near Moonta**
A collection of copper ores
Collection de minerais de cuivre
Eine Sammlung von Kupfererzen
Collezione di minerali di rame

CLASS XLI.

Products of the Cultivation of Forests,
and of the Trades appertaining
thereto.

Produits des Exploitations et des In-
dustries Forestières.

Erzeugnisse der Waldcultur und der
damit verbundenen Gewerbe.

Prodotti della Coltura delle Foreste e
delle Industrie che vi attengono.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 GENERAL COMMITTEE

Specimens of polished South Australian woods
Spécimens des bois indigènes polis

Proben von polirten Süd-Australischen Höl-
zern

Campioni di legni lustrati dell' Australia me-
ridionale

2 FOWLER, W., Adelaide

Specimen of turnery

Spécimen de bois tourné

Proben von Drechslerarbeit

Saggi di tornitura

CLASS XLII.

Products of Shooting, Fishing, and of
the Earth obtained without Cultiva-
tion.

Produits de la Chasse, de la Pêche, et
des Cueillettes.

Producte der Jagd, des Fischfangs und
der Erde, ohne Cultur erhalten.

Prodotti della Caccia, della Pesca, et
della Terra ottenuti senza Cultura.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 GENERAL COMMITTEE

Samples of grass, gums, and resins; collec-
tion of 4,000 specimens of South Australian
insects; specimens of natural history

Spécimens de graminées, de gommes, et de
résines; collection de 4,000 spécimens d'insectes
de l'Australie du Sud; spécimens d'histoire
naturalle

Exemplare von Gras, Gummi und Harz;
Sammlung von 4,000 Süd-Australischen

Insecten; naturgeschichtliche Exemplare

Campioni di erbe, gomme, e resine; collezione
di 4,000 esemplari di insetti dell' Australia

meridionale, campioni d' istoria naturale

2 GILBERT, JOSEPH, Powsey Vale

A ram's head, crystallised

Tête de bétail, cristallisé

Ein Widderkopf, crystallisirt

Testa di montone cristallizzata

3 GREET, T. Y., Berwick-on-Tweed

Collection of South Australian sea-weeds

Collection de plantes marines de l'Australie du
Sud

Sammlung von Süd-Australischem Meergras

Collezione di alghe dell' Australia meridionale

4 MITCHELL, C. B., Adelaide

A native ant-eater, in spirits

Fourmilier naturel, conservé dans l'alcool

Ein Ameisenfresser des Landes, in Spiritus

Mangiaformiche indigeno, nell' alcool

5 O'HALLORAN, T. J. S., Adelaide

Herbarium of native plants

Herbier de plantes indigènes

Herbarium von einheimischen Pflanzen

Erbario di piante indigene

6 PHILLIPS, EDWARD, Port Adelaide

A collection of fish from St. Vincent's Gulf

Collection de poissons du Golfe de St. Vincent

Eine Fischsammlung vom St. Vincent-Golf

Collezione di pesci del Golfo S. Vincenzo

7 WILSON, MRS. C. A., Adelaide

Herbarium of native plants

Herbier de plantes indigènes

Herbarium einheimischer Pflanzen

Erbario di piante indigene

8 YOUNG, Miss, Adelaide

South Australian sea-weeds

Algues de l'Australie du Sud

Süd-Australisches Meergras

Alghe dell' Australia meridionale

CLASS XLIII.

Agricultural Products (not used as
Food).

Produits Agricoles, non-alimentaires.

Landwirthschaftliche Producte, die
nicht zur Nahrung dienen.

Prodotti Agrari (non usati per Cibo).

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 ANDERSON, JAMES, Port Lincoln

Fleeces of wool

Toisons

Vliesse (Schurwolle)

Velli

2 ANGAS, J. H., Collingrove

Wool, and fleeces of wool

Laine, et toisons

Wolle und Vliesse

Lana, e velli

3 BABBAGE, B. H., St. Mary's

Samples of cotton

Spécimens de coton

Proben von Baumwolle

Campione di cotone

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Produkte.

Prodotti Chimici e Pharmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 TIDMARSH, JOHN, & Co.

Yellow soap

Savon jaune

Gelbe Seife

Sapone giallo

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 PEACOCK, W., & SON, Adelaide

Skins, leather, and tanning barks

Peaux, cuirs, et écorces tannantes

Häute, Leder und Gerbrinden

Pelli, cuoio, e scorze tannine

GROUP VII.—CLASS LXVII.

Cereals and other Eatable Farinaceous Products, and the Products derived from them.

Céréales et autres Produits Farineux Comestibles, avec leurs Dérivés.

Getreide und andere essbare mehligte Produkte und deren Educte.

Cereali ed altri Comestibili Farinacei, e Prodotti che ne derivano.

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

1 ALLEN, WILLIAM, Nurioopta

Flour—*Farine*

Mehl—*Fiore*

2 BELL, A.

Tuscan and purple straw wheat

Froment de Toscane, et à paille pourprée

Toscanischer und Rothweizen

Frumento Toscano e a paglia violetta

3 BEVILAGNA, L., Lyndoch

Flour—*Farine*

Mehl—*Fiore*

4 CANT, GRIFFIN

White Tuscan wheat

Froment blanc de Toscane

Weisser Toscanischer Weizen

Frumento bianco Toscano

5 COLMAN, WILLIAM, Strathalbyn

Flour—*Farine*

Mehl—*Fiore*

6 DAWSON, JAMES, Gawler

Flour—*Farine*

Mehl—*Fiore*

7 DUFFIELD, HON. W.

Flour—*Farine*

Mehl—*Fiore*

8 GENERAL COMMITTEE

Wheat, oats, and linseed

Blé, orge, et graines de lin

Weizen, Hafer und Leinsamen

Frumento, avena, e seme di lino

9 HACKETT, W., Mount Barker

Tuscan wheat, in cask of native wood

Froment de Toscane dans un baril de bois indigène

Toscanischer Weizen in Fässern von einheimischem Holz

Frumento Toscano, in caratelli di legno indigeno

10 LAVIN, JOHN, Port Adelaide

Biscuits—*Biscuits*

Zwieback—*Biscotti*

11 SMITH, A., Mount Gambier

Tuscan wheat—*Blé de Toscane*

Toscanischer Weizen—*Frumento Toscano*

12 WEHL, E., Mount Gambier

Wheat and Riga linseed

Blé et graines de lin de Riga

Weizen und Leinsamen von Riga

Frumento e seme di lino di Riga

13 WELLS, THOMAS, Mount Gambier

Wheat—*Blé*

Weizen—*Frumento*

CLASS LXXI.

Vegetables and Fruits.

Légumes et Fruits.

Gemüse und Früchte.

Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 GENERAL COMMITTEE

Fac-similes of South Australian fruits

Modèles de fruits de l'Australie du Sud

Facsimiles von Süd-Australischen Früchten

Fac-simili di frutta dell'Australia meridionale

2 HARDY, THOMAS, Bankside

Raisins—*Raisins*

Kleine Rosinen—*Zibibi*

CLASS LXXII.

Condiments and Stimulants.

Condiments et Stimulants.

Gewürze und Reizmittel.

Condimenti e Stimolanti.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 CHANCE, MRS. L. A., Parkside

Sauces and pickles

Sauces et légumes confits dans le vinaigre

Saucen and Pickles (in Essig eingemachte Früchte)

Salse e frutti in aceto

2 MOODY, JOHN, Adelaide

Sauces—*Sauces*Saucen—*Salse*

CLASS LXXIII.

Fermented Drinks.

Boissons Fermentées.

Geistige Getränke.

Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 AULD, P., & SON, Auldana, South

Four varieties of wine—*Quatre espèces de vin*Vier Weinsorten—*Quattro varietà di vini*

2 BRODIE, A., Claremont

White Verdelho wine—*Vin blanc de Verdelho*Verdelho-Weisswein—*Vino Verdelho bianco*

3 CHARLESWORTH, T. W., Eyandale

Three varieties of wine—*Trois espèces de vin*Drei Weinsorten—*Tre varietà di vino*

4 EDMONDS, J., Norwood

Wine from mixed grapes

Vin de raisin mélangé

Wein von gemischten Trauben

Vino di uve miste

5 FISHER, DANIEL, Rousillon Vineyard

Brandy, and three kinds of wine

Eau-de-vie, et trois espèces de vin

Branntwein und drei Weinsorten

Acquavite, di tre specie di vino

6 GILBERT, JOSEPH, Pewsey Vale

Brandy, five varieties of wine

Eau-de-vie et cinq espèces de vin

Branntwein, fünf Weinsorten

Acquavite, cinque qualità di vino

7 GILLARD, J., Sylvania

Four varieties of wine—*Quatre espèces de vin*Vier Weinsorten—*Quattro varietà di vino*

8 GREEN, W., Gawler Park

Six kinds of wine—*Six espèces de vin*Sechs Weinsorten—*Sei specie di vino*

9 GREIG, Dirleton

Red and white wine—*Vins rouges et blancs*Roth- und Weisswein—*Vino rosso e bianco*

10 HARDY, T., Bankside

White Verdelho—*Vin blanc de Verdelho*Weisser Verdelho—*Vino Verdelho*

11 HUNT, F. R., Yantaringa

Red and white wine—*Vins rouges et blancs*Roth- und Weisswein—*Vino rosso e bianco*

12 PEAKE, E. J., Clarendon

Various wines, white wines, Clarendon red wine

Vins divers, vins blancs, vin rouge de Clarendon

Verschiedene Weinsorten, Weissweine, Clarendon-Rothwein

Vini vari, vini bianchi, vino rosso di Clarendon

13 RANDALL, D., Glen Para and South Rhine Vineyards

Various wines, red wines, white wine

Vins divers, vins rouges, vin blancs

Verschiedene Weinsorten, Rothweine, Weisswein

Vini vari, rossi, bianchi

14 ROSS, R. D., Highercombe

Red and white wine—*Vins rouges et blancs*Roth- und Weissweine—*Vino rosso e bianco*

15 SCOTT, R. & J., Brookside

Red Shiraz wine—*Vin rouge de Shiraz*Shiraz-Rothwein—*Vino rosso Shiraz*

16 WILSON BROTHERS, Annandale

Red Shiraz and Mataro wines

Vins rouges de Shiraz et de Mataro

Shiraz- und Mataro-Rothweine

Vini rossi Shiraz e Mataro

17 WINCKLE, E. B., Buchsfelde

White Tokay and red Mataro

Vin blanc de Tokay, vin rouge de Mataro

Tokayer Weiss- und Mataro-Rothwein

Tokay bianco e Mataro rosso

GROUP VIII.

Live Stock and Agricultural Buildings.

Produits vivants et Spécimens d'Établissements de l'Agriculture.

Hausthiere und landwirthschaftliche Gebäude.

Animali e Costruzioni Agrarie.

(For detailed classification, see p. xxvii.)

(Voir le système de classification, p. xxvii.)

(Für detaillirte Classification, siehe Seite xxvii.)

(Vedasi il sistema di classificazione, p. xxvii.)

1 GENERAL COMMITTEE

Twenty-two live animals and birds

Vingt-deux animaux et oiseaux vivants

Zwei und zwanzig lebende Thiere und Vögel

Ventidue animali ed uccelli vivi

TRINIDAD.

GROUP II.—CLASS VI.

Printing and Books.

Produits d'Imprimerie et de Librairie.

Buchdruckerkunst und Bücher.

Stampa e Libri.

(For detailed classification, see p. xiv.)

(Voir le système de classification, p. xiv.)

(Für detaillirte Classification, siehe Seite xiv.)

(Vedasi il sistema di classificazione, p. xiv.)

1 TRINIDAD COMMISSION

Collection of pamphlets, &c. printed in the year 1866, and of the newspapers issued in the colony

Collection de brochures, etc. imprimées pendant 1866, et des journaux publiés dans la colonie

Sammlung von Flugschriften u. s. w., welche in dem Jahre 1866 gedruckt wurden, und Zeitungen der Colonie

Collezione di libretti stampati nell 1866 e dei giornali pubblicati nella colonia

CLASS IX.

Photographic Proofs and Apparatus.

Épreuves et Appareils de Photographie.

Photographische Proben und Apparate.

Prove ed Apparatî fotografici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillirte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

1 PRESTOE, H.

Series of photographic views of the Botanic Gardens

Photographies, vues du Jardin botanique

Photographien, Ansichten des botanischen Gartens

Vedute fotografiche del giardino botanico

GROUP V.—CLASS XL.

Mining and Metallurgy.

Produits de l'Exploitation des Mines et de la Métallurgie.

Berg- und Hüttenproducte.

Miniere e Metallurgia.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 TRINIDAD COMMISSION

Specimen of asphalt from the p chlake of the island

Asphalte provenant du lac bitumineux de l'île

Asphalt aus dem Erdpechsee der Insel

Saggio d'asfalto prodotto dal lago bituminoso di quest'isola

CLASS XLI.

Products of the Cultivation of Forests.

Produits des Exploitations forestières.

Erzeugnisse der Waldcultur.

Prodotti della Coltura delle Foreste.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 PRESTOE, H.

75 named specimens of colonial woods; 22 specimens of fibres, rough and prepared

Bois de la colonie; spécimens de fibres, bruts et préparés

Holz der Colonie; Holzfiber, roh und verarbeit

Saggi di legnami coloniali; fibre crude e preparate

GROUP VI.—CLASS LI.

Apparatus used in Chemistry, Pharmacy, and in Tanyards.

Matériel des Arts chimiques, de la Pharmacie, de la Tannerie.

Apparate, die in der Chemie, Pharmacie und Gerberei gebraucht werden.

Apparati usati nella Chimica, Farmacia, e Concia.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 BEICHMANN, P. F. L.

6 bottles Bay rum; 6 bottles hairoil

Bouteilles de rhum; bouteilles d'huile antique

6 Flaschen Rum; 6 Flaschen Haaröl

Bottiglie di rum; bottiglie d'olio da capelli

2 BEICHMANN, P. F. L.

6 jugs furniture cream

Enduit pour les meubles

6 Flaschen Politur für Möbel

Vasi di liscio da mobilia

GROUP VII.—CLASS LXXII.

Condiments and Stimulants.

Condiments et Stimulants.

Gewürze und Reizmittel.

Condimenti e Stimolanti.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 BEICHMANN, P. L.

6 phials Cayenne pepper—*Poivre de Cayenne*
Cayenne-Pfeffer—*Pepe da Cajenna*

2 BERNAND, P. N., Leadenhall-street, London

Box of Soconusco cocoa—*Cacao**Cacao—Cacao*

VICTORIA.

GROUP I.—CLASS I.

Paintings in Oil.
Peintures à l'Huile.
 Oelgemälde.
Quadri a Olio.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 GRUNDY, J., Leeming, Melbourne
 Oil painting by Eugène von Guérard
Peinture à l'huile par Eugène von Guérard
 Oelgemälde von Eugen von Guérard
Quadri a olio di Eugenio von Guérard
- 2 PAULSON, MISS ANN, Castlemaine
 Two water-colour paintings by exhibitor
Deux aquarelles par l'exposant
 Zwei Wasserfarben-Gemälde von dem Aussteller
Due acquerelli dipinti dall'espositore
- 3 HORNE, R. H., Esq.
 Water-colour painting by exhibitor
Aquarelle par l'exposant
 Gemälde in Wasserfarben von dem Aussteller
Acquerello dipinto dall'espositore

CLASS II.

Water-colour Paintings and Drawings.
Peintures diverses et Dessins.
 Gemälde und Zeichnungen in Wasserfarben.
Acquerelli e Disegni.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 CHEVALIER, N., Melbourne
 Sketches and drawings taken from nature in New Zealand
Esquisses et dessins d'après nature pris en la Nouvelle-Zélande
 Naturskizzen und Naturzeichnungen von Neuseeland
Disegni e schizzi copiati dalla natura nella Nova Zelanda

GROUP II.—CLASS VI.

Printing and Books.
Produits d'Imprimerie et de Librairie.
 Buchdruck und Bücher.
Stampa e Libri.

(For detailed classification, see p. xiv.)
 (Voir le système de classification, p. xiv.)
 (Für detaillirte Classification, siehe Seite xiv.)
 (Vedasi il sistema di classificazione, p. xiv.)

- 1 Collection of the newspapers, journals, and periodicals published in the colony (Appendix, p. 45)
Collection de journaux et publications périodiques publiés dans la colonie
 Sammlung von Zeitungen, Journalen und Zeitschriften, veröffentlicht in der Colonie
Collezione dei giornali, diarii, e periodici pubblicati nella colonia
- 2 BAILLIÈRE, J. W., Melbourne
 Works published by the exhibitor
Ouvrages publiés par l'exposant
 Von dem Aussteller veröffentlichte Werke
Opere pubblicate dall'espositore

CLASS VIII.

Application of Drawing and Modelling to the Common Arts.
Applications du Dessin et de la Plastique aux Arts Usuels.
 Anwendung des Zeichnens und Modellirens auf die gewöhnlichen Künste.
Applicazione del Disegno e del Modellare alle Arti comuni.

(For detailed classification, see p. xv.)
 (Voir le système de classification, p. xv.)
 (Für detaillirte Classification, siehe Seite xv.)
 (Vedasi il sistema di classificazione, p. xv.)

- 1 ROYAL COMMISSIONERS, Victoria
 Casts of aborigines from life, by Chas. Summers (Appendix, p. 86)
Modèles des aborigènes d'après nature par C. Summers
 Abgüsse von lebenden Ureinwohnern, von C. Summer
Getti di aborigeni dal vero, di Carlo Summer

CLASS IX.

Photographic Proofs and Apparatus.
Épreuves et Appareils de Photographie.
 Photographische Proben und Appa-
 rate.

Prove e Appareati Fotografici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillierte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

- 1 CORNELL, F., Melbourne
 Photographic views of Victoria
Vues photographiques de la colonie
 Photographische Ansichten von Victoria
Vedute fotografiche di Vittoria
- 2 NETTLETON, C., Melbourne
 Photographic views of Victoria
Vues photographiques de la colonie
 Photographische Ansichten von Victoria
Vedute fotografiche di Vittoria
- 3 SELWYN, —, Director of the Geological Survey of Victoria
 Photographic views of Victorian scenery
Vues photographiques du bourg
 Photographische Ansichten von Victoria
Vedute fotografiche delle campagne di Vittoria
- 4 BUNYONG, THE BOROUGH OF
 Photographic views of the borough
Vues photographiques du bourg
 Photographische Ansichten des Stadtbezirks
Vedute fotografiche dei dintorni
- 5 WALTER, CHARLES, Melbourne
 Photographic portraits of aborigines and half-castes
Portraits photographiques des naturels et des races mélangées
 Photographische Portraits von Ureinwohnern und Mischlingen
Ritratti fotografici degli indigeni e delle razze miste
- 6 DUFTY & CAROLINE, Kyneton
 Views of Victorian scenery
Vues de la colonie
 Ansichten von Scenerie von Victoria
Vedute delle campagne di Vittoria
- 7 NISSEN, GEORGE, Melbourne
 View of Nissen's Café, Melbourne
Vue du Café Nissen, à Melbourne
 Ansicht von Nissen's Kaffeehaus, Melbourne
Vedute del Caffè Nissen a Melbourne
- 8 ROBINSON, Melbourne
 Views of Melbourne
Vues de Melbourne
 Ansichten von Melbourne
Vedute di Melbourne
- 9 ROYAL COMMISSIONERS OF VICTORIA
 Views of Melbourne and Victorian scenery
Vues de Melbourne et paysages de la colonie
 Ansichten von Melbourne und Scenerien von Victoria
Vedute di prospettive di Melbourne e di Vittoria

- 10 WHEELER, J., Castlemaine
 Views of Castlemaine district
Vues du district de Castlemaine
 Ansichten des Districtes von Castlemaine
Vedute del distretto di Castlemaine

11 EAST LODDON ROAD BOARD

Views of the district
Vues du district
 Ansichten des Districtes
Vedute del distretto

CLASS XI.

Medical and Surgical Instruments and Apparatus.

Appareils et Instruments de l'Art Médical.

Medicinische und chirurgische Instrumente und Apparate.

Appareati e Istrumenti Medici e Chirurgici.

(For detailed classification, see p. xv.)

(Voir le système de classification, p. xv.)

(Für detaillierte Classification, siehe Seite xv.)

(Vedasi il sistema di classificazione, p. xv.)

- 1 MEYEROFF, CONRAD, Sandhurst
 Surgical instrument, 'Pro lapsu uteri,' invented by exhibitor
Instrument de chirurgie, 'Pro lapsu uteri,' inventé par l'exposant
 Chirurgisches Instrument für den 'Pro lapsu uteri,' Erfindung des Ausstellers
Strumento chirurgico 'Pro lapsu uteri,' inventato dall'espositore

CLASS XIII.

Maps, Plans, &c.

Cartes, Plans, etc.

Karten, Pläne etc.

Mappe, Piante, ecc.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillierte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

- 1 VICTORIA, DEPUTY POSTMASTER OF
 Statistical tables of the Post-office department of Victoria, with a collection of stamps
Tableaux statistiques de l'administration des Postes de Victoria, avec une collection de timbres
 Statistische Tabellen des Postamtes zu Victoria mit einer Sammlung von Postmarken
Tavole statistiche del dipartimento postale di Vittoria, con collezione di francobolli

2 VICTORIA, ROYAL COMMISSIONERS OF

Gold column showing amount of gold obtained in Victoria from 1851 to 1866 (Appendix, p. 95)

Colonne d'or pour montrer la quantité d'or tiré de Victoria de 1851 à 1866

Goldsäule, die das von 1851 bis 1866 in Victoria gewonnene Gold angiebt

Colonna aurea dimostrativa della quantità d'oro estratto in Vittoria dal 1851 al 1866

3 BUTTER, JAMES E., Ballarat

Map of Ballarat—*Carte de Ballarat*

Karte von Ballarat—*Mappa di Ballarat*

4 ARCHER, WILLIAM, Registrar-General of Victoria

Statistical tables and notes on the colony of Victoria

Tableaux et notes statistiques sur la colonie de Victoria

Statistische Tabellen und Bemerkungen über die Colonie Victoria

Tavole e annotazioni statistiche sulla colonia di Vittoria

5 M'COY, PROFESSOR, Melbourne University

Five frames illustrative of the zoology and palæontology of Victoria

Cinq cadres servant à illustrer la zoologie et la paléontologie de Victoria

Fünf Rahmen, Darstellungen der Zoologie und Paläontologie von Victoria enthaltend

Cinque cornici illustranti della zoologia e della paleontologia di Vittoria

6 BAND OF HOPE COMPANY, Ballarat

Gold column representing the gold obtained from the company's claim at Ballarat

Colonne d'or représentant la quantité d'or recueillie de leur mine à Ballarat

Goldsäule, welche die Quantität des Goldes, welches von der Grube der Gesellschaft gewonnen worden, darstellt

Colonna d'oro rappresentando la quantità d'oro ottenuta dalla miniera della compagnia a Ballarat

7 DE GRUCHY & LEIGH, Melbourne

Three maps of Melbourne

Trois cartes de Melbourne

Drei Karten von Melbourne

Tre carte di Melbourne

GROUP III.—CLASS XIV.

Fancy Furniture.

Meubles de Luxe.

Luxusmöbel.

Mobilia di Lusso.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 ALCOCK & Co., Melbourne

Drawing-room billiard-table—*Billard de salon*

Salonbillard—*Bigliardo da salone*

CLASS XVII.

Porcelain, Earthenware, and Pottery.

Porcelaines, Faïences, et Poteries.

Porcellan, irdenes Geschirr und

Töpferwaare.

Porcellana, Terraglie, e Vasellami.

(For detailed classification, see p. xvi.)

(Voir le système de classification, p. xvi.)

(Für detaillirte Classification, siehe Seite xvi.)

(Vedasi il sistema di classificazione, p. xvi.)

1 STIRLING, G. P., Melbourne

Colonial earthenware and fire-bricks

Faïences et briques réfractaires de la colonie

Irdenes Geschirr und feuerfeste Backsteine aus der Colonie

Terraglie della colonia, e mattoni da fuoco

2 ALLISON, ROBINSON, Digger's Rest, Lunbury

Bricks tested by crushing power

Briques qui ont résisté à la compression

Backsteine, durch zermalmende Kraft probiert

Mattoni provati sotto schiacciamento potentissimo

3 CAWKWELL, H. A., Malvern

Samples of terra cotta

Spécimens de terra cotta

Proben von gebrannter Erde

Campioni di terra cotta

4 GUTHRIE, G. D., Epsom

Pottery

Poteries

Töpferwaaren

Vasellami

CLASS XXI.

Gold and Silver Plate.

Orfèverrie.

Gold- und Silbergeschirr.

Ori e Argenti.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

1 EDWARDS, goldsmith, Melbourne

Silver claret jugs, jewellery case, ornamented emu's egg

Cruchons d'argent à vin, écrin, œuf décoré de casoar

Silberne Weinkrüge, Juwelengkästchen, verziertes Emuei

Inquistara d'argento da vin rosso, scrigno da gioie, penne ornate di struzzo emu

2 PEARSON, C. K., Arvea

Watch, silver gilt

Montre d'argent doré

Silberne Taschenuhr, vergoldet

Oriuolo d'argento dorato

CLASS XXV.

Perfumery.
Parfumerie.
Parfumerie.
Profumeria.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

- 1 WATTS, HENRY, Warrnambool
Perfumery made by exhibitor from colonial flowers
Parfums extraits par l'exposant de fleurs indigènes
Riechwasser, von dem Aussteller aus Blumen der Colonie gemacht
Profumeria fatta dall' espositore con fiori della colonia
- 2 KITCHEN, J., & SONS, Sandridge
Soap and soap fruits
Savon et ses dérivés
Seife und Seifenfrüchte
Sapone e derivati di sapone

CLASS XXVI.

Straw Work, Fancy Articles, and Basket Work.

Objets de Tabletterie et de Vannerie.
Stroharbeit, Modeartikel und Korbflechterwaaren.

Lavori in Paglia, Oggetti di Lusso, e Lavori in Vimini.

(For detailed classification, see p. xvii.)

(Voir le système de classification, p. xvii.)

(Für detaillirte Classification, siehe Seite xvii.)

(Vedasi il sistema di classificazione, p. xvii.)

- 1 MEALY, E. M. DARLEY, Collingwood
Samples of plaited straw grown in Victoria
Tresses de paille indigène
Proben von geflochtenem Stroh, gewachsen in Victoria
Campioni di treccia di paglia cresciuta in Vittoria
- 2 CHAMP, COLONEL, Pentridge
Cabbage-tree hats made by prisoners
Chapeaux faits de chou-palmiste (avec d'Amérique) par les prisonniers
Kohlpalmenhüte, von Gefangenen gemacht
Cappelli di palma-cavolo fatti dai detenuti

GROUP IV.—CLASS XXIX.

Combed Wool, and Worsted Fabrics.

Laine Peignée, Tissus de Laine.

Gekrämpelte Wolle und Wollenstoffe.

Lana Pettinata, e Tessuti di Stame.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

- 1 THE COMMISSIONERS OF VICTORIA
Combed wool, woollen tissues, mousselines-de-laine
Laine peignée, tissus de laine, mousselines de laine
Gekämmte Wolle, wollene Stoffe, Mouselines-de-laine
Lana pettinata, tessuti di lana, mussolina di lana
- 2 GILL, G. D., & Co., Melbourne and Collingwood
Scoured wool; Como brand
Laine lavée (espèce Como)
Gewaschte Wolle; Como-Art
Lana purgata; marca Como
- 3 DOUGLAS, A., & Co., Geelong
Bale of wool—*Laine*
Ein Ballen Wolle—*Balla di lana*
- 4 ACCLIMATISATION SOCIETY OF VICTORIA
Samples of alpaca and angola wool grown in Victoria
Spécimens de laines d'alpaca et d'angola produites dans la colonie
Proben von Alpaca- und Angola-Wolle, in Victoria gezogen
Campioni di alpaca e lana d'angola cresciute in Vittoria
- 5 BELL, JOHN, Melbourne
Fleeces of wool—*Toisons*
Vliesse—*Vello*
- 6 GRAY, CHARLES, Nareeb Nareeb Station, Nickliffe
Bale of wool—*Laine*
Ein Ballen Wolle—*Balla di lana*
- 7 CURRIE, L., Larra, near Geelong
Fleece of wool—*Toison*
Vliesse—*Vello*
- 8 LONDON AND AUSTRALIAN AGENCY COMPANY (Limited), Finsbury-place South, London, and Clough's Wool Warehouses, Melbourne
Wool—*Laine*—Wolle—*Lana*
- 9 ROBERTSON, A. S., per Cunningham & Macredie, Melbourne
Fleeces of wool—*Toisons*
Vliesse—*Velli*
- 10 GOLDSBOROUGH & Co., Melbourne
Fleeces of wool; bales of wool
Toisons; laines
Vliesse; Wolle in Ballen
Velli; balle di lana

11 CUNNINGHAM & MACREDIE, Melbourne

Bales of wool—*Laines*Wolle in Ballen—*Balle di lana*

12 ORMOND, Melbourne

Bale of wool—*Laine*Ein Ballen Wolle—*Balla di lana*

13 CLOUGH & Co., Melbourne

Wool—*Laine*Wolle—*Lana*

14 Per MESSRS. CUNNINGHAM & MACREDIE:—

THOMAS RUSSELL, of Rokewood; J. COLDHAM, Grassdale; CARTER & SONS, Rosebrook; J. & S. LEARMOUTH, Eccildown; J. BLAIR, Clunie; P. RUSSEL, Carnyhorn; T. SHAW, Wooriwyrite; J. L. CURRIE, Larra

Washed fleeces; ewes bred by exhibitors

Toisons lavées de moutons élevés par les exposants

Gewaschte Vliesse von Schafmüttern, von den Ausstellern gezogen

Velli lavati; pecore allevate dagl' espositori

15 P. RUSSEL, Carnyhorn; J. L. CURRIE, Larra; J. MACKERSEY, Kennilworth; J. & S. LEARMOUTH, Eccildown; T. RUSSELL & Co., Plains; CH. GRAY, Nareeb, Nareeb; PEPPIN & SONS, Morargo; JOHN BELL, Waitombun; D. AFFLECK, Pleasant Bank; J. THOMSON, Buangor; JOSEPH CARTER, Narracoort

Ewes' fleeces (greasy), bred by exhibitors

Toisons en suint de moutons élevés par les exposants

Entfettete Vliesse von Schafmüttern, von den Ausstellern gezogen

Velli crudi di pecore allevate dagl' espositori

CLASS XXXII.

Shawls.

Châles.

Shawle.

Scialli.

(For detailed classification, see p. xviii.)

(Voir le système de classification, p. xviii.)

(Für detaillirte Classification, siehe Seite xviii.)

(Vedasi il sistema di classificazione, p. xviii.)

1 THE COMMISSIONERS OF VICTORIA

Shawls from Victorian wool

Châles fabriquées de laine produite dans la colonie

Shawle aus Wolle von Victoria

Scialli di lana di Vittoria

CLASS XXXIV.

Hosiery and Underclothing; Articles appertaining thereto.

Articles de Bonneterie et de Lingerie; Objets accessoires du Vêtement.

Strumpfwaaeren und Unterkleidung; hierher gehörige Gegenstände.

Calzetteria, Biancheria, e Oggetti appartenenti.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 SOULIÉ, DECOURTET, Melbourne

French stays made by exhibitor

Corsets français confectionnés par l'exposant

Französische Corsette, gemacht von der Ausstellerin

Busti alla Francese fatti dall' espositore

2 STEWART, MRS., St. Kilda

French stays made by exhibitor

Corsets français confectionnés par l'exposante

Französische Corsette, gemacht von dem Aussteller

Busti alla Francese fatti dall' espositore

3 THOMAS, STEPHEN, Melbourne

Boots—*Chaussures*Stiefeln—*Stivali*

CLASS XXXV.

Clothing for both Sexes.

Habillements des deux Sexes.

Kleidung für beide Geschlechter.

Abbigliamenti per ambi i Sessi.

(For detailed classification, see p. xix.)

(Voir le système de classification, p. xix.)

(Für detaillirte Classification, siehe Seite xix.)

(Vedasi il sistema di classificazione, p. xix.)

1 THOMAS, PAUL, Melbourne

Boots and shoes of colonial leather

Bottes et souliers de cuir de la colonie

Stiefeln und Schuhe aus Colonialleder

Stivali e scarpe di cuoio della colonia

2 SANDERS, JOHN, Sandridge

Ladies' boots of kangaroo leather, and slippers

Bottines de dames faites de peau de kangaroo, pantoufles

Damenschuhe aus Känguruhleder und Pantoffeln

Stivaletti da donna di cuoio di kangurù, e pantoffele

3 GOODHEIM, SAMPSON, Melbourne

Unfolding caps

Bonnets pouvant se déplier

Zusammenlegbare Mützen

Berrette espansive

CLASS XXXVI.**Jewellery and Precious Stones.***Joaillerie et Bijouterie.***Geschmeide und Edelsteine.***Gioie e Pietre Preziose.*(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

- 1 THE ROYAL COMMISSIONERS OF VICTORIA
Colonial precious stones
Pierres fines de la colonie
Edelsteine aus der Provinz
Pietre preziose della colonia

CLASS XXXVII.**Weapons.***Armes Portatives.***Waffen.***Armi.*(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

- 1 LEVERN, H. A., Melbourne
Model of floating rocket ram for destruction
of vessels
*Modèle de béliet flottant à fusée pour couler à
fond les vaisseaux*
Modell eines schwimmenden Racketenwidders
zur Zerstörung von Schiffen
*Modello di ariete-razzo galleggiante per di-
struggere navi*

- 2 OFFICER, —, Mount Talbot
Collection of native weapons
Collection d'armes des naturels
Eine Waffensammlung der Eingebornen
Collezione di armi indigene

- 3 SMYTH, BROUGH, Secretary to the Mines
Department of Victoria
Collection of native weapons and shields
Collection d'armes et boucliers des naturels
Sammlung von Waffen und Schilden der Ein-
gebornen
Collezioni di armi e scudi indigeni

GROUP V.—CLASS XL.**Mining and Metallurgy.***Produits de l'Exploitation des Mines et
de la Métallurgie.***Berg- und Hüttenproducte.***Miniere e Metallurgia.*(For detailed classification, see p. xix.)
(*Voir le système de classification, p. xix.*)(Für detaillirte Classification, siehe Seite xix.)
(*Vedasi il sistema di classificazione, p. xix.*)

- 1 EVETT, WILLIAM, Emerald Hill, near Mel-
bourne
Samples of gold leaf

Spécimens de feuilles d'or
Exemplare von Blättergold
Campioni di foglia d'oro

- 2 SMYTH, R. BROUGH
Specimens of minerals from Victoria
Spécimens de minéraux de la colonie
Mineralien von Victoria
Campioni di minerali di Vittoria

- 3 STIELING, G. P., Melbourne
Samples of Kaolin clay
Spécimens de kaolin argileux
Exemplare von Kaolinthon
Campioni di caolino argillosa

- 4 THE VICTORIA PATENT MANURE AND
CHEMICAL COMPANY, Ballarat
Specimens of Lal-lal lignite
Spécimens de lignite Lal-lal
Proben des Lal-lal Lignites
Campioni di lignite Lal-lal

- 5 MACPHERSON, LEWIS, Sandhurst
Auriferous quartz and crystals
Quartz et cristaux aurifères
Goldführender Quarz und Crystalle
Quarzo e cristalli auriferi

- 6 SMYTH, R. BROUGH, Secretary to Depart-
ment of Mines
Specimens of auriferous earth from the gold-
fields of Victoria
*Spécimens de terrain aurifère des gîtes auri-
fères de la colonie*
Proben der goldführenden Erde aus dem Gold-
district von Victoria
*Campioni di terra auriferi dai terreni auri-
feri di Vittoria*

CLASS XLI.**Products of the Cultivation of Forests
and the Trades appertaining thereto.**
*Produits des Exploitations et des In-
dustries Forestières.***Producte der Waldcultur und der
davon abhängenden Gewerbe.**
*Prodotti della Coltura delle Foreste e
delle Industrie che vi attengono.*(For detailed classification, see p. xx.)
(*Voir le système de classification, p. xx.*)
(Für detaillirte Classification, siehe Seite xx.)
(*Vedasi il sistema di classificazione, p. xx.*)

- 1 SLATER, W. H., Box Hill Distillery, Nunna-
wading
Essential oils
Huiles essentielles
Aetherische Oele
Oli essenziali

- 2 BOSISTO, Chemist, Richmond, near Mel-
bourne
Essential oils
Huiles essentielles
Aetherische Oele
Oli essenziali

- 3 Specimens of wood turned by exhibitor
Spécimens de bois tourné par l'exposant
Proben von Holzdrechslerarbeit, vom Aussteller gemacht
Saggi di legni torniti dall'espositore
- 4 BEVERIDGE, MR.
Samples of colonial timber (Appendix)
Spécimens des bois de construction de la colonie
Proben von Bauholz der Colonie
Saggi di legnami della colonia
- 5 HUGHAN, MR. ALL, Yongera
Samples of colonial timber
Spécimens des bois de construction de la colonie
Muster von Bauholz der Colonie
Saggi di legnami della colonia
- 6 PYERS, MR.
Sample of colonial timber
Bois de construction de la colonie
Muster von Bauholz der Colonie
Saggio di legname della colonia
- 7 ROYAL COMMISSIONERS OF VICTORIA
Specimens of colonial timber (Appendix);
paper knives made from colonial woods
Spécimens des bois de construction de la colonie;
couteaux à papier de bois indigènes
Exemplare von Bauholz der Colonie; Papiermesser aus Colonialholz
Saggi di legnami della colonia; tagliacarte fatti di legni della colonia
- 8 DORKER, F. G., Botherambo
Boxes made from colonial woods
Boîtes de bois indigènes
Kisten aus Colonialholz
Cassette fatte di legni della colonia
- 9 CHAMP, COLONEL, Pentridge
Fancy cabinet work wrought by prisoners
Objets d'ébénisterie fabriqués par les prisonniers
Geschmackvolle Schränke, Arbeit der Gefangenen
Stipetteria di lusso lavorata dai detenuti
- 10 MUELLER, DR. F., F.R.S., Government Botanist, Melbourne
Barks of trees, and fern stems
Écorces, et tiges de fougères
Baumrinden und Stengel von Farrenkräutern
Scorze d'alberi e steli di falci
- 11 KOPPEN, R., Melbourne
Pipes of myall wood and specimens of myall timber
Pipes de bois de myall, et spécimens de bois de myall pour constructions
Pfeifen aus Myallholz und Proben von Myall-Bauholz
Pipe di legno myall, e campioni di legname di myall

CLASS XLII.

Products of Shooting, Fishing, &c.
Produits de la Chasse, de la Pêche, etc.
Producte der Jagd, des Fischens etc.
Prodotti della Caccia, della Pesca, ecc.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillierte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

- 1 GARDNER, F., Furrier, Melbourne
Ladies' furs made from opossum skin
Fourrures de dames, faites de peau d'opossum
Pelze für Damen aus Opossumfell
Pellicce per signore di pelle d'opossum
- 2 ROBERTSON, JOHN, Melbourne
Emu feathers prepared and dyed
Plumes de casaro préparées et teintées
Emufedern, preparirt und gefärbt
Penne di struzzo emu preparate e tinte
- 3 GIBBS, RICHARD R., Ballarat
Colonial furs and skins
Fourrures et peaux d'animaux indigènes
Pelze und Häute der Colonie
Pellicce e pelli della colonia
- 4 STEPHENS, JOHN P., Ballarat
Muffs made of colonial fur; opossum skins
Manchons en fourrure du pays; peaux d'opossum
Muffe, von einheimischen Pelzen gemacht;
Opossum-Felle
Manicotti fatti della pelliccia del paese; pelli di opossum

CLASS XLIII.

Agricultural Products (not used as Food) easily Preserved.

Produits Agricoles (non-alimentaires) de facile Conservation.

Leicht conservirbare landwirthschaftliche Producte, die nicht zur Nahrung dienen.

Prodotti Agrari (non usati per Cibo) facilmente conservati.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillierte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

- 1 RIDD, JAMES A., Portarlington
Flax and cotton
Lin et coton
Flachs und Baumwolle
Lino e cotone
- 2 POLITZ, A., & Co., Melbourne
Grown and manufactured tobacco
Tabac en feuilles et manufacturé
Rohr und fabricirter Tabak
Tabacco coltivato e manifatturato

3 DORKER, F. G., Borthorambo

Olive oil
Huile d'olive
Olivenöl
Olio d'oliva

4 WHITE & Co., Melbourne

Cigars (colonial manufacture)
Cigares (manufacturés dans la colonie)
Cigarren (Colonialproduct)
Sigari (manifattura della colonia)

5 FITTS, —, Melbourne

Glue and oils
Colle-forte et huiles
Leim und Oele
Colla e oli

6 THE HOBSON'S BAY SOAP AND CANDLE MANUFACTURING COMPANY

Soap and purified tallow
Savons et suif purifié
Seife und gereinigter Talg
Sapone e sevo purificato

CLASS XLIV.

Chemical and Pharmaceutical Products.

Produits Chimiques et Pharmaceutiques.

Chemische und pharmaceutische Produkte.

Prodotti Chimici e Pharmaceutici.

(For detailed classification, see p. xx.)

(Voir le système de classification, p. xx.)

(Für detaillirte Classification, siehe Seite xx.)

(Vedasi il sistema di classificazione, p. xx.)

1 MUELLER, DR. F., F.R.S., Government Botanist, Melbourne

Wood's spirit, acetic acids, and tars
Esprit de Wood, acides acétiques, goudrons
Holznaphtha, Essigsäure und Theer
Spírito di legno, acidi acetici, e catrami

2 HONNENS & Co., Maldon

Colonial manufactured glue
Colle-forte fabriquée dans la colonie
Leim in der Colonie gemacht
Colla fabbricata nella colonia

3 BOARDMAN, PIERCE, Box Hill, Nannawading

Oils and other chemical products
Huiles et autres produits chimiques
Oele und andere chemische Erzeugnisse
Oli ed altri prodotti chimici

4 MALLET, JAMES, Windsor

Blackening ink
Cirages et encres
Schuhschwärze und Tinte
Nero da scarpe e inchiostro

CLASS XLVI.

Leather and Skins.

Cuir et Peaux.

Leder und Häute.

Cuoio e Pelli.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 BREARLY BROTHERS, Melbourne

Colonial sole leathers
Semelles fabriquées dans la colonie
Sohlenleder aus der Colonie
Cuoiami da suole della colonia

2 FARRELL, JAMES, Melbourne

Fancy leather made of kangaroos' skins
Cuir de fantaisie faits de peaux de kangaroo
Gefärbte Leder, von Känguruh-Häuten verfertigt
Cuoi di lusso fatti di pelli di canguru

3 CLARKE, J. & SONS, Melbourne

Specimens of dressed leather
Spécimens de cuirs préparés
Proben von zugerichtetem Leder
Campioni di cuoio acconciato

GROUP VI.—CLASS XLVIII.

Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests.

Appareils et Procédés des Exploitations Rurales et Forestières.

Landwirthschaftliche Apparate und Verfahren für die Cultur der Felder und Wälder.

Apparati e Processi Agrari usati nella Coltura dei Campi e delle Foreste.

(For detailed classification, see p. xxi.)

(Voir le système de classification, p. xxi.)

(Für detaillirte Classification, siehe Seite xxi.)

(Vedasi il sistema di classificazione, p. xxi.)

1 MCPHERSON, A., Melbourne

Liquid manure
Engrais liquide
Flüssiger Dünger
Concime liquido

2 MACMEIKAN, JAMES, & Co., Flemington, near Melbourne

Bone dust and super-phosphate of lime
Poudre d'os et hyper-phosphate de chaux
Knochenpulver und überphosphorsaurer Kalk
Polvere d'ossa e super-fosfato di calce

- 3 THE VICTORIA PATENT MANURE & CHEMICAL COMPANY, Ballarat
Mineral manure
Engrais minéral
Künstlicher Dünger
Concime minerale

CLASS LXI.

- Carriages and Wheelwrights' Work.
Carrosserie et Charronnage.
Kutschen und Wagnerarbeit.
Carrozze e Ruote.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

- 1 PERRY, A., Melbourne
Carriage wheels; bent timber and shafts
Roues de voiture; bois courbé et limons
Wagenräder, gebogenes Holz und Deichseln
Ruote da carrozze, legname del migliore e stanghe

CLASS LXII.

- Harness and Saddlery.
Bourrellerie et Sellerie.
Pferdegeschirr und Sattlerwaaren.
Fornimenti da Cavalli e Sellerie.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

- 1 KENNEY, J., Melbourne
Racing saddle
Selle de course
Sattel für Wettrennen
Sella da corsa

CLASS LXVI.

- Navigation and Life-boats.
Matériel de la Navigation et du Sauvetage.

- Schiffahrt und Rettungsböte.
Nautica e Barche di Salvagione.

(For detailed classification, see p. xxiv.)

(Voir le système de classification, p. xxiv.)

(Für detaillirte Classification, siehe Seite xxiv.)

(Vedasi il sistema di classificazione, p. xxiv.)

- 1 BATES, J. E., Cariyule
Model of a surety deck; working model of a life-boat
Modèle de tillac de sûreté; modèle de 'lifeboat' pouvant fonctionner
Modell eines Sicherheitsverdeckes; Modell eines Rettungsbootes (arbeitsfähig)
Modello di coverta di sicurezza, modello attirabile di una barca di salvagione

GROUP VII.—CLASS LXVII.

- Cereals and other Farinaceous Products, and Products derived from them.

- Céréales et autres Produits Farineux, avec leurs Dérivés.*

- Getreide und andere mehligte Producte und deren Educte.

- Cereali ed altri Prodotti Farinacei, e Prodotti che ne derivano.*

(For detailed classification, see p. xxv.)

(Voir le système de classification, p. xxv.)

(Für detaillirte Classification, siehe Seite xxv.)

(Vedasi il sistema di classificazione, p. xxv.)

- 1 ORLEBAR, JOHN
Wheat and potato oats—*Blé et avoine*
Weizen und Potatohafer
Frumento e avena di patate
- 2 BRISBANE, JAMES, Berwick
Purple straw wheat—*Blé à paille pourprée*
Purpurstroh-Weizen
Frumento a paglia violetta
- 3 THE WARRENHEIF'S DISTILLERY COMPANY (Limited), Ballarat
Barley and malt—*Orge et malte*
Gerste und Malz—*Orzo e malto*
- 4 BRUNTON & GILLESPIE, Melbourne
Tartarian oats—*Avoine du Tartare*
Hafer aus der Tartarei—*Avena Tartara*
- 5 WEHL, DR.
Canary seed—*Graine d'aspic*
Canarienvogel-Samen—*Seme da canarini*
- 6 GOUGH & Co.
Barley malting—*Maltage d'orge*
Gerstenmalz—*Malto d'orzo*
- 7 WRIGHT, THOMAS
Field peas—*Pois des champs*
Felderbsen—*Piselli di campo*
- 8 HANCOCK, B. J., Warrion, near Colae
Wheat and barley—*Blé et orge*
Weizen und Gerste—*Frumento e orzo*
- 9 LOW, LOMNER, & Co., Melbourne
Peas—*Pois*
Erbsen—*Picelli*
- 10 WILSON, WILLIAM, Berwick
Wheat—*Blé*
Weizen—*Frumento*
- 11 BUCHANAN, ROBERT
Wheat—*Blé*
Weizen—*Frumento*
- 12 McANDREW, DONALD, Geelong
Barley and field beans
Orge et fèves des champs
Gerste und Feldbohnen—*Orzo e fave di campo*
- 13 COFFEE, JEREMIAH, Creswick
Wheat—*Blé*
Weizen—*Frumento*

- 14 EVANS, D. H. & Co., Wangarratta
Wheat, flour—*Froment, farine*
Weizen, Mehl—*Fumento, fiore*
- 15 DOCKER, F. G., Wangarratta
Wheat—*Blé*
Weizen—*Fumento*
- 16 VINCENT, R. B., Wangarratta
Cape barley—*Orge du Cap*
Gerste vom Cap—*Orzo del Capo*
- 17 CASTELLA, F., Melbourne and Kyneton
Flour—*Farine*
Mehl—*Fiore*
- 18 RYAN, J., Wangarratta
Flour—*Farine*
Mehl—*Fiore*
- 19 ALLAN & BALDREY, Wangarratta
Flour—*Farine*
Mehl—*Fiore*
- 20 BENCRAFT, G., Melbourne
Oatmeal and barley—*Gruau d'avoine et orge*
Hafermehl und Gerste—*Farina d'avena e orzo*
- 21 THOMPSON & Co., Castlemaine
Flour, maize, and oatmeal
Farina, maïs et gruau d'avoine
Mehl, Türkischer Weizen und Hafermehl
Fiore, granturco, e farina d'avena
- 22 HOLME, WHITE, & Co., Melbourne
Flour—*Farine*
Mehl—*Fiore*
- 23 OFFICER, MR., by Dr. Mueller
Vegetable substance eaten by the aborigines
Plante végétale servant d'aliment aux aborigènes
Eine von den Ureinwohnern gegessene
Pflanze
Sostanza vegetabile mangiata dagli aborigeni
- 24 ALLAN, MRS. A. C., Warrnambool
Native bread, called by the aborigines 'Boryatt'
Pain, dit 'Boryatt,' fait par les aborigènes
Boryatt-Brot der Ureinwohner
Pane indigena, chiamato dagli aborigeni
'Boryatt'
- 25 WILSON, SAMUEL, Longcresnong-Wimmera
Arrowroot
Arrowroot
Arrowroot
Arrorut

CLASS LXVIII.

Bread and Pastry.
Produits de la Boulangerie et de la Pâtisserie.
Brot und Backwerk.
Pane e Pasticceria.

(For detailed classification, see p. xxvi.)
(*Voir le système de classification, p. xxvi.*)
(Für detaillirte Classification, siehe Seite xxvi.)
(*Vedasi il sistema di classificazione, p. xxvi.*)

- 1 SMITH & SONS, Fitzroy, near Melbourne
Fancy biscuits
Biscuits de fantaisie
Hauszwieback
Biscotti di lusso
- 2 SWALLOW & ARIEL, Sandbridge, near Melbourne
Navy and fancy biscuits
Biscuits de mer et de fantaisie
Schiffs- und Hauszwieback
Biscotti di lusso e da mare

CLASS LXX.

Meat and Fish.
Viandes et Poissons.
Fleisch und Fisch.
Carne e Pesce.

(For detailed classification, see p. xxvi.)
(*Voir le système de classification, p. xxvi.*)
(Für detaillirte Classification, siehe Seite xxvi.)
(*Vedasi il sistema di classificazione, p. xxvi.*)

- 1 CLARKE, MARMADUKE, Maryboro'
Colonial cured ham and bacon
Jambon et lard mariné dans la colonie
Schinken und Speck, in der Colonie gemacht
Prosciutto e porco salato curato nella colonia
- 2 MUN, MATTHEW A., & Co., Melbourne
Hams and bacon
Jambons et lard
Schinken und Speck
Prosciutti e porco salato
- 3 BOARD OF AGRICULTURE OF VICTORIA
Preserved meat, hams, and bacon
Viande conservée, jambons et lard
Eingemachtes Fleisch, Schinken und Speck
Carni conservate, prosciutti, e porco salato
- 4 SMITH, CLARKE, Melbourne
Preserved meat
Viande conservée
Eingemachtes Fleisch
Carni conservate

CLASS LXXI.

Vegetables and Fruits.

Légumes et Fruits.

Gemüse und Früchte.

Ortaggi e Frutta.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 ROYAL COMMISSIONERS OF VICTORIA

Preserved fruits, and casts representing divers fruits

Fruits conservés, et modèles de fruits divers

Eingemachte Früchte und Abgüsse von verschiedenen Früchten

Frutta conservate, e getti rappresentanti diverse frutta

CLASS LXXII.

Condiments and Stimulants, Sugar and Confectionery.

Condiments et Stimulants, Sucres et Produits de la Confiserie.

Gewürze und Reizmittel, Zucker und Zuckerwerk.

Condimenti e Stimolanti, Zucchero e Confettura.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 LAVER, —, Melbourne

Currie powder

Poudre de currie

Curriepulver

Polvere di currie

2 FORDHAM, FRANK, Emerald Hill, near Melbourne

Colonial manufactured pickles and sauces

Légumes conservés dans le vinaigre et sauces, préparés dans la colonie

In der Colonie in Essig eingemachte Früchte, und Saucen

Frutti in aceto e salse fatte nella colonia

3 VICTORIA SUGAR COMPANY, Sandridge and Melbourne

Sugar

Sucres

Zucker

Zucchero

4 GERAUD, LÉONARD & CIE., Melbourne

Confectionery, chocolate, and crystallised fruits

Objets de confiserie, chocolat, et fruits cristallisés

Zuckerwerk, Chocolate und crystallisirte Früchte

Confettura, cioccolata, e frutta candite

5 ZORN, EDWARD, Melbourne

Tomato sauce

Sauce tomate

Tomato-Sauce

Salsa di pomodoro

6 KNIGHT, G. W., Riddell-Cruk

Preserved fruits

Fruits conservés

Eingemachte Früchte

Frutta in conserva

CLASS LXXIII.

Fermented Drinks.

Boissons Fermentées.

Geistige Getränke.

Bevande Fermentate.

(For detailed classification, see p. xxvi.)

(Voir le système de classification, p. xxvi.)

(Für detaillirte Classification, siehe Seite xxvi.)

(Vedasi il sistema di classificazione, p. xxvi.)

1 WARRENHEISS DISTILLERY COMPANY, Ballarat

Whisky and geneva

Whisky et genievre

Whisky und Wachholderbranntwein

Whisky e ginepro

2 DORKER, F. G., Borthorambo

Malbec wine

Vin de Malbec

Malbec-Wein

Vino di Malbec

3 UMPHELBY & Co., Melbourne

Colonial wines

Vins de la colonie

Colonial-Weine

Vini della colonia

4 EVEREST THOMAS, Upper Hawthorne, near Melbourne

Colonial wines

Vins de la colonie

Colonial-Weine

Vini della colonia

5 MAPLESTONE, CHARLES, Heidelberg

Colonial wine

Vin de la colonie

Colonial-Wein

Vino della colonia

6 HOPWOOD, H., Echuca

Colonial wine

Vin de la colonie

Colonial-Wein

Vino della colonia

7 GUPPY, WALTER, Benalla

Colonial wine

Vin de la colonie

Colonial-Wein

Vino della colonia

8 PIPER, WILLIAM, Benalla

Colonial wine

Vin de la colonie

Colonial-Wein

Vino della colonia

- 9 MURRAY, ANDREW, Melbourne
Australian Medoc and Hermitage
Médoc et Hermitage de l'Australie
Australischer Medoc und Hermitage
Medoc e Ermitage dell'Australia
- 10 SCHROEDER, E., Imperial Vineyard, Castle-
maine
Colonial Burgundy
Vin de Bourgogne de la colonie
Burgunder aus der Colonie
Borgogna della colonia
- 11 MEREDITH, THOMAS, Chewton Vineyard
Tokay, Chablis, and Frontignac (colonial)
Vins de la colonie: Tokay, Chablis, et Fron-
tignac
Tokayer, Chablis und Frontignac (Colonial-
Weine)
Tokay, Chablis, e Frontignac (della colonia)
- 12 FALTON, JAMES J., Albury
Colonial wines, different qualities
Vins de la colonie de qualités différentes
Colonial-Weine, verschiedene Sorten
Vini della colonia, differenti qualità
- 13 FITZGERALD, —, Castlemaine
Ale, brewed by exhibitor
Ale, brassée par l'exposant
Bier, vom Aussteller gebraut
Ale, fabbricata dall'espositore
- 14 BOARD OF AGRICULTURE, Melbourne
Colonial wines
Vins de la colonie
Colonial-Weine
Vino della colonia
- 15 PANTON, J. A.
Colonial wine
Vin de la colonie
Colonial-Wein
Vino della colonia
- 16 KNIGHT, G. W., Riddle's Creek
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 17 WHITE BROTHERS, Melbourne
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 18 GALLAND & JUNOD, Geelong
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 19 MATTHEY BROTHERS
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 20 HOPE, DR.
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 21 DE PURY & LANGDON
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia
- 22 RAE & THORP, Beechworth
Colonial wine
Vin du pays
Wein, in der Colonie gezogen
Vino della colonia

VIRGIN ISLANDS.

[No Committee appointed.]

[*Point de Comité nommé.*]

[Kein Ausschuss ernannt.]

[*Nessun Comitato nominato.*]

Collection of postage stamps, recently issued
under authority of local enactment

*Collection de timbres-poste, récemment émis sous
l'autorité du gouvernement de la colonie*

Sammlung von Postmarken, welche kürzlich
durch eine Localverordnung ausgegeben wor-
den sind

*Collezione di franco-bolli ultimamente emessi
dietro l'ordine del governo di dette isole*

PARIS UNIVERSAL EXHIBITION OF 1867.

INDEX TO BRITISH EXHIBITORS.

For the Names of Colonial Exhibitors see the Catalogue of each Colony.

	Group	Class		Group	Class
Aberdare Coal Company	V	40	Allen, G. T.	III	17
Abrahams, H.	I	4	„ Jemima Catherine	IV	33
Absolon, John	I	2	„ W. H., & Co.	II	6
Ablett, W. H.	IV	30	„ & Hanburys	V	44
Adams, G. G.	I	3	Allhusen, C., & Sons	V	44
„ John	V	44	Allison, Ralph, & Sons	II	10
„ F. B., & Sons	III	23	Allman, F. J.	II	6
„ John, & Co.	III	17	Allsop, S., & Sons	VII	73
„ Robert	IV	37	Amies, Barford, & Co.	VI	48
„ Thomas, & Co. (Lim.)	III	15	„ „ „ „	VIII	74
„ „ „ „	IV	33	Anderson, D., & Sons	VI	65
„ W. James	II	6	Andrews & Co.	II	6
„ W. S., & Sons	III	24	„ George	I	2
„ „ „ „ (Testing House)			Angell, G.	III	21
„ & Francis	II	6	„ „ „ „	IV	36
Addis, Samuel Joseph	V	40	Annesley, the Earl of	III	21
Addison & Co.	II	6	„ „ „ „	IV	36
Admiralty	VI	50	Ans dell, Richard, A.R.A.	I	1
„ „ „ „	VI	66	Appleby Brothers	VI	52
„ „ „ „	VII	68	Arbuckle, General, & Arbuckle,		
„ „ „ „	II	13	„ Capt.	II	12
„ „ „ „	III	24	Arbuckle, Joseph	II	11
„ „ „ „	VI	50	Archer, James, R.S.A.	I	1
Admiralty (W.M.)	VI	66A	Architectural Museum	VI	65
Ainsworth, Thomas	IV	28	„ „ „ „ Pottery Company	VI	65
Aire & Calder Bottle Company	III	16	Armitage, Edward, A.R.A.	I	1
Aitchison, John, & Co.	VII	73	„ E., & Sons	IV	27
Akrill	II	6	„ James, & Co.	IV	30
Akroyd, James, & Son	IV	29	Armstrong, Sir W., & Co.	VI	66A
Aldebert, Isaac	VI	61	Arnold, Frederick	II	7
Alderman, John	III	14	Art Union of London	II	6
Alderson, Mrs.	IV	33	„ „ „ „	III	22
Aldred, Thomas	VI	49	Arthington, Joseph	VI	53
„ „ „ „	VI	62	Arthur, Frederick	III	14
Aldridge, W. E.	I	2	Artizan Office	II	6
Alexandra Printing Ink Company	II	7	Arundel Society	II	6
„ Sewing Machine			Ash, Claudius, & Sons	II	11
„ „ „ „ Company	VI	57	„ Lewis, & Co.	V	44
Alfieri, Charles	II	9	Ashby & Co.	II	6
Allan & Co.	II	6	„ & Jeffery	VI	48
Allen, Charles	IV	33	„ „ „ „	VIII	74
„ E. E.	VI	48	Asher & Co.	II	6
„ „ „ „	VIII	74	Ashton, Joseph, & Sons	IV	35
„ G. T.	II	12	Ashworth, Edmund, & Sons	IV	27

	Group	Class		Group	Class
Berthon, Rev. E. L.	VI	66	Bond, J. J.	II	6
Besley, W. H.	II	6	„ & Co.	II	10
Besson, F.	II	10	Bonnewell, W. H., & Co.	VI	59
Bethell, W.	VI	65	Book Society	II	6
Best & Hobson	III	24	Boosey & Co.	II	6
Betjemann, George, & Sons	III	26	Boote, T. & R.	VI	65
Bettridge, John, & Co.	III	14	Booth, H., & Co.	VI	55
Betts & Co.	V	40	Borschitzky, John Francis	X	89
Bettyes, J., & Son	VI	61	Borwick, George	V	44
Beuler, —	II	6	Bottomley, John William	I	1
Beverly Iron & Waggon Com- pany	VI	48	Bourne, Joseph, & Son	VI	64
„ „ „	VIII	74	„ & Shepherd	II	9
Bevington & Morris	V	46	„ Stephen	VI	50
„ & Sons	II	10	Boulton, William, & Son	V	40
Bewicke & Vincent	II	7	„ Samuel Bagster	VI	53
„ „ „	V	44	Boutell, Rev. Charles	II	8
Bible Stand Committee	X	89	Bower, George	VI	51
Bickford, Smith, & Co.	VI	47	Bowler, Henry Alexander	I	2
Bickers & Son	II	6	Bowley & Co.	IV	35
Biddle, Daniel	IV	33	Bowley, R. K.	VI	65
Bignell, John	III	26	Bowling Iron Company	V	40
Bingley & De Becker	IV	34	Bowser & Cameron	VI	52
Binns, Godfrey, & Son	IV	30	„ W., & Sons	III	24
„ & Goodwin	II	6	Boxall, William, R. A.	I	1
Birchall, J. D., & Co.	IV	30	Boyall, R. J.	VI	61
Birchenough, J.	IV	31	Boyce, George Price	I	2
Bird, Peter Hinckes	VI	51	Boyd, J., & Co.	VI	48
„ „ „	II	12	„ „ „	VIII	74
Birmingham and North of England Patent Forged Nail and Rivet Company	V	40	„ „ „	IX	83
Birmingham Patent Iron and Brass Tube Company	V	40	Boyle & Smith	III	18
Birmingham Small Arms Com- pany	IV	37	Braby, Frederick, & Co.	V	40
Birt, J., Jun.	VI	66	„ J., & Son	VI	48
Bishops Waltham Clay Company	V	40	„ „ „	VIII	74
„ „ „	III	17	Bradbury & Co.	VI	57
Black, Adam & Charles	X	89	„ Evans, & Co.	II	6
Blackie, George	III	23	„ Wilkinson, & Co.	II	6
„ John, & Son	II	6	Bradford Chamber of Commerce	IV	29
Blackwell, S.	VI	62	Bradford, T., & Co.	VI	50
Blackwood, James, & Co.	II	6	Brandauer, C.	II	7
„ William, & Sons	II	6	Brandon, David, F. S. A.	I	4
Blaenavon Company	V	40	„ Raphael	I	4
Blanchard, M. H.	VI	65	Brayley, E.	III	21
„ V.	II	9	„ „	IV	36
Blashfield, J. M.	VI	65	Brazier, Joseph	IV	37
Blencore, Agnes	IV	33	Brett, John	I	1
Blenkiron, W.	III	21	„ „	I	2
„ „ „	IV	36	Brewer & Co.	II	6
Blews, W., & Sons	V	40	Bridell, Mrs. Lee	I	1
„ „ „	III	24	Bridgman, A.	VI	65
Bliss, William	VI	62	Brigham & Bickerton	VI	48
„ „ & Son	IV	30	Brigg & Sons	IV	32
„ „ „	IV	32	„ „ „	VIII	74
Blockley, —	II	6	Briggs, G., & Co.	VI	61
Blomfield, A. W.	III	15	„ Netterville	II	9
Blunden, Miss Anna	I	2	Bright, Henry	III	23
Boak, Allan	V	46	Brinsmead, John	II	10
Board of Trade	VI	66	Brinton & Lewis	III	18
Bodringalt Coal Company	V	40	Britannia Rubber and Kamp- tulicon Company	III	18
Bohn, Henry G.	II	6	„ „ „	V	44
Bolton, Captain Frank	VI	66	British and Foreign Bible Society	X	89
			British Oil and Cannel Com- pany	V	40
			British Seaweed Company	V	44

	Group	Class		Group	Class
Broadwood, John, & Sons	II	10	Burt & Potts	VI	65
Brockedon, William, & Co.	II	7	Burton, Bethel, & Millar J.	IV	37
Broderick, Cuthbert	I	4	„ Brewery Company	VII	73
Brogden, John	III	21	Burys & Co.	V	40
„ „	IV	36	Busbridge & Co.	II	7
Brook, Jonas, & Brothers	IV	27	Bush, R. J.	II	6
„ J., & Brothers	VI	55	„ William John	V	44
Brooke, Edward	VI	65	Bussey, George G.	V	40
„ S. & Son	VI	56	„ G. G., & Co.	VI	49
Brookes & Crookes	III	20	„ Smith, & Co.	IV	38
Brooks, Robert	II	10	Butler & Co.	III	21
„ T.	I	1	„ „	IV	36
„ Vincent	II	6	„ & Tanner	II	6
Broom, W. H.	II	6	„ McCulloch	V	44
Brothers, Charles	III	15	„ & Sons	VI	59
Brotherton, John, & Co.	V	40	Buxton, William	V	43
Brough, Nickolson, & Co.	IV	31	Bwlfa Colliery Company	V	40
Broughton Copper Company	V	40	Byers, A., & Son	IV	30
Brown & Downing	V	40			
„ Green	III	24	Cail, Richard	VI	66A
„ „ (Testing House)			Caithness, Earl of	II	9
„ Benjamin	VI	53	„ „	II	11
„ John S.	IV	28	Calderon, Philip H., A.R.A.	I	1
„ W., & May, C. N.	VI	48	Calley, Samuel	V	44
„ „	VIII	74	Callow, William	I	2
„ J., & H., & Co.	IV	30	Calvert, F. C., & Co.	V	44
„ John, & Co.	V	40	Campbell & Co.	II	6
„ „	VI	66A	Cambrian Flannel Company	IV	30
„ Lawrence	V	41	Cameron, Mrs.	II	9
„ William, & Co.	II	7	Cammell & Co.	VI	66A
„ Wilson, & Co.	VI	52	Canadian Washing Machine & Agricultural Implement Com-		
Browne, William	V	40	pany	VI	50
„ J. B., & Co.	IX	83	Canneline Oil Company	V	40
Brownfield, W.	III	17	Canoe Club	VI	66
Browning, Elijah	IV	35	Carington, Lady	III	15
Brownrigg, Thomas M.	II	9	Carlaw, David	VI	60
Brucciani, D.	II	8	Carles Brothers	IV	35
Brunswick Brothers	III	14	Carleton, Richard	IV	35
Bryan, Charles	III	21	Carme, Eugene	II	7
„ „	IV	36	Carr, Isaac, & Co.	IV	30
Bryant & May	III	24	„ Thomas, & Co.	IV	31
„ „ (Testing House)			„ „	VI	51
Bryceson Brothers	II	10	Carrett, Marshall, & Co.	VI	47
Buchanan, James	VI	49	„ „	VI	52
Buck, Cornelius	II	6	„ „	VI	53
Buckley, Major	III	24	Carrick, J. M.	I	1
„ „ (Testing House)			Carson & Toone	VI	48
Bull & Wilson	IV	30	„ „	VIII	74
„ John	II	9	Carter & Phillips	IV	31
Bullock, Brothers	II	9	Cartwright, W. S.	III	21
„ W.	V	40	„ „	VI	36
Bunnett & Co.	VI	65	Cassell, Petter, & Galpin	II	6
Burdon, W. W. See Teams			Cator, G. A.	VI	66
„ Woodpulp Co.	II	7	Cattanach, W.	VI	62
Burges, William	I	4	Cattermole, George	I	2
Burgess, John B.	I	1	Cash, John & Joseph	IV	28
„ John	I	2	Causton, Joseph, & Sons	II	6
„ „ & Son	VII	72	„ „	II	7
Burgoyne, „ Burbidges, and Squire	V	44	„ „	II	8
Burkitt, John	VI	59	„ Harriet Jane, & Sons	IV	38
Burley, Robert	VI	66	Chadburn, C. H., & Son	II	12
„ „	VI	66A	„ „	III	24
Burn, Alexander, M.D.	VIII	81	Chadwick, John	IV	31
Burney & Co.	VI	66			

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	Group	Class		Group	Class
Condy, Henry B.	II	11	Cressy, T. S.	VI	50
Consett Iron Co.	V	40	Crewdson & Worthington	IV	27
Cook, Edward, & Co.	V	44	Crichley, Henry, & Co.	III	24
„ & Hacking	VI	56	Criddle, Mrs. H.	I	2
„ W., & Co.	V	44	Crisp, Edward, M.D.	II	11
Cooke, Edward William, R.A., F.R.S.	I	1	Croggon & Co.	VI	52
„ T., & Sons	VI	61	„ „	IV	30
„ W.	III	19	Crompton, James R.	II	7
Cooper, James	II	8	Cronmire, J. M., & H.	X	89
„ J. C.	VI	61	„ „	II	12
„ Thomas S., A.R.A.	I	1	Crookes, W. „ „	V	44
Cope, Charles West, R.A.	I	1	Crosland, John	II	6
„ „ „ „	I	5	„ W. & H.	IV	30
„ Miller, & Co.	V	40	Crosse & Blackwell	VII	72
Copeland, William T. & Sons	III	17	Crouch & Son	IV	36
„ „ „ „	III	16	„ „ „ „	III	21
„ George Alexander	VI	47	„ H. & Wm.	II	12
Copestake, Moore, Crampton, & Co.	IV	33	Crowe, Eyre	I	1
Coppard, J., & Co.	VI	48	Crown Preserved Coal Company	V	40
„ „ „ „	VII	74	Crowthier, James, & Sons	IV	30
Copper Miners in England, Governor & Company of Cwm Avon Works	V	40	Cruttenden, J.	II	9
Corbett, John	VII	72	Cuff, R. P.	I	5
Corbould, Alfred	I	1	„ & Sons	I	62
„ Edward Henry	I	2	Cundall & Fleming	II	9
Cork Carpet Company	III	18	Cundall & Miller	II	6
Cornelissen, Louis	II	7	Cunningham, H. B. P.	VI	66
Cornish Brothers	II	6	Cutter, William George	X	89
Cornes and Bartleet	II	6			
Corporation of the Central Hall of Arts and Sciences	VI	65	Daft, T. B.	VI	66
Cossens, Edward Joseph	III	26	Daglish, John	VI	47
Costa Andrade, M. de, & Co.	V	46	„ „ „ „	VI	53
Costerton, Charles Fisher	IV	28	D'Alcorn, —	II	6
Cottam & Co.	VIII	75	Dallas, Duncan Campbell	II	9
„ „ „ „	VI	65	Dallmeyer, John Henry	II	9
Cottier, D.	III	16	„ „ „ „	II	12
Cotton Supply Association	IV	27	Dalziel, Brothers „ „	I	5
Coulton, Isaac Love	III	15	Damon, Robert	X	89
Courtauld, S., & Co.	IV	31	Darney, J., & Sons	V	44
Courtenay, Joseph D.	IV	35	Daugars, Rev. G. G.	IV	31
Cousins, Samuel, R.A.	I	5	Davey, W.	II	6
Coventry Elastic Weaving Co.	IV	31	Davidson, Charles	I	2
Cow, Hill, & Co.	III	18	Davies, G. B.	II	9
„ „ „ „	V	44	„ & Co.	IV	33
Cowan, Alexander, & Sons	II	7	„ & Sons	VI	61
„ T. W.	IX	83	„ Robert S., & Sons	IV	30
Cox, David (the late)	I	2	„ D.	VI	54
„ „ „ „	I	2	Davis, D., & Sons	V	40
„ & Co.	III	15	„ E. J.	V	43
„ George	II	6	„ H. W. B.	I	1
„ Richard	VI	65	„ J. C.	III	20
„ & Son	III	16	„ William	I	3
Crace, John Gregory	III	14	Davison, Duncan, & Co.	II	6
Craig, Christie, & Co.	IV	35	Davy, Yates, & Routledge	V	44
Cramb Brothers	II	9	Dawes, W.	II	10
Cramer & Co.	II	6	Dawn, William	IV	30
Cranston, James	IX	83	Day & Son	II	6
Crapper & Co.	II	11	„ Nephew, & Son	IV	30
Craven & Speeding	VI	55	„ & Watkinson	IV	30
Creak, James	IV	35	„ Howgate, & Holt	IV	30
Cremer, William Henry, Jun.	IV	39	„ & Martin	V	44
„ & Co.	IV	35	Dean, John	VI	48
			„ „ „ „	VIII	74
			„ Thomas N.	I	4
			„ T., & Son	II	6
			Dearle & Co.	II	6

	Group	Class
Deas, James	VI	63
Debenham, William Elliott	II	9
De Bergue, C., & Co.	VI	54
Deed, John S., & Sons	V	46
" " " "	III	18
Deer, Frederick, A.	III	15
Defries, Nathan	VI	53
" J., & Sons	III	16
" " " "	III	24
De la Barre, A.	VI	53
De la Rue, T. & Co.	II	6
De Lacy, George	II	7
Dellagana, J. B., & Co.	VI	59
Dell, W. R.	VI	43
" " " "	VIII	74
Demezy & Hemery	II	9
Demuth, Lewis, & Co.	V	44
Denison, —	VI	53
Denny Brothers	VI	66
Dent, M.F., & Co	III	23
Denton, A. B.	VI	65
" & Jutsum	V	44
Dering, G. E.	VI	63
Desanges, Louis W.	I	1
Desvignes, Peter Hubert	II	12
Devenish, J. A., & Co.	VII	73
Dewrance, J., & Co.	VI	53
Diamond, Hugh W., M.D.	II	9
Dickes, William	II	6
Dickins & Co..	IV	27
Digby, the Lord	VI	65
" " " "	X	93
Dillon, Frank	I	1
Distin, Henry, & Co.	II	10
Dixon, John	V	40
" " " "	V	46
" & Harris	VI	52
" J., & Sons	VI	55
" Thomas	III	14
" Nicholls, & Co.	IV	30
" James & Sons	III	20
" " " "	III	21
" " " "	IV	36
Dobson, J.	III	16
" William C. T., A.R.A	I	1
Dodge, Gr. P.	V	44
Dodgson, George	I	2
Dollar Brothers	V	40
Donaldson, Thomas, L. Ph. D.	I	4
Donkin, B., & Co.	VI	52
" " " "	VI	53
" " " "	VI	59
Donne, William, & Sons	III	21
" " " "	IV	36
Doo, George T., R.A.	I	5
Dougall, James Dalziel	IV	37
Douglas, J. H.	III	21
" " " "	IV	36
" C., & Stevenson, J.	I	4
" Reyburn, & Co.	IV	35
Doulton, H., & Co.	VI	65
" & Watts	III	17
" " " "	VI	47
Dowlais Iron Co.	V	40
Duckham, H. A. F.	III	21

	Group	Class
Dudley, Earl of	V	40
Dufaville, S., & Co.	VII	70
Duff & Stewart	II	6
Duffield, James	VI	50
„ Mrs. William	I	2
Duffy, James	II	6
Duncan & Co.	VII	70
Dunlop, Robert	II	12
Dunmore, Edward	II	9
Dunn, T.	VI	65
„ „	VI	54
„ „	VI	66
Dunnicliff & Smith	IV	33
Dunville & Co.	VII	73
Durant, Susan	I	3
Dury, T.	III	16
Dyer & Watts	III	14
Eades, W., & Son	VI	53
Eames, W.	VI	66
Eagle Iron Works Company	V	40
Earp, F.	VI	65
Eassie, W., & Co.	VI	65
East, Samuel	IV	35
„ „	V	41
Easterbrook & Allcard	VI	54
Eastwood, George	VI	65
Ebby, Charles	IV	28
Eden, A. F.	II	9
Economic Permanent Way Company	VI	63
Edis, Robert W.	I	4
Edmondston & Douglas	II	6
Edmundson & Sons	III	16
Edwards, Miss Ellen	I	1
Egan, Cottle, & Co.	VII	73
Egg, Augustus, R.A. (the late)	I	1
Egley, William	I	2
Eiseler, Franz Edward	IV	38
Electro-Magnetic and Electro-Plate Company	VI	53
Elkington & Co.	III	21
„ „	IV	36
Ellam, B.	VI	62
Elliott Brothers	II	12
„ Charles Earp	II	9
Elliott's Patent Sheathing and Metal Company	V	40
Ellis, F. S.	II	6
Elmore, Alfred, R.A.	I	1
Emanuel & Son	V	43
„ Harry	III	21
„ „	IV	36
Emery, —	II	6
England, William	II	9
English, James	II	6
English & Australian Copper Company	V	40
Epinay, P. de	I	3
Eschwege, Hermann	V	44
Esdaile & Sheath	V	41
European Sewing Machine Co.	VI	57
Evans, William	I	2
„ Edmund	I	5
„ & Askin	V	44

	Group	Class		Group	Class
Evans & Stafford	v	43	Fowler, J., & Co.	vi	48
" D., & Co.	iv	31	" "	viii	74
" Parker, Sparke, & Co.	v	46	" "	vi	63
" Walter, & Co.	iv	27	" John & Co.	vii	73
" William, & Co.	ii	6	Fox, Head, & Co.	v	40
" W. E.	ii	10	" Samson, & Brothers	vi	54
" James	vi	61	" Walker, & Co.	vi	48
Evelyn, Lieut.-Col. G. P.	vi	66	" " "	viii	74
Everitt, A., & Sons	v	40	" " "	vi	52
Ewer & Co.	ii	6	Foxlee, Edward W.	ii	9
Eyre & Spottiswoode	ii	6	France, James	iv	29
Faed, Thomas, R.A.	i	1	Franchi, G., & Son	iii	22
Fahey, James	i	2	Frankham & Wilson	ii	12
" Parker, Sparke & Co.	v	45	Franklin, William, & Son	iv	31
Fairlie, Robert F.	vi	63	Freer, John	vi	48
Farlow, C., & Co.	vi	49	" " "	viii	74
Farmer & Rogers	iv	31	Freeman, Thomas	iii	24
Farnworth, J. K.	vi	61	" William	ii	6
Farr & Gregory	ii	10	Freemasons' Magazine Office	ii	6
Farrant, Richard Elisha	iii	26	Frith, William Powell, R.A.	i	1
Farrier, Robert	i	1	Frodsham, Charles	iii	23
Farrow & Jackson	vi	50	Frost, William Edward, A.R.A.	i	1
Faulkner, Henry, & Co.	iv	27	Fry, J. S., & Sons	vii	72
" Robert	ii	9	" Samuel	ii	9
Fenton, Son, & Co. & Fenton, S. G., & Co.	iv	28	" Walter	v	41
Fentum, Martin	iii	26	" William, & Co.	iii	15
Ferguson, Henry & John	v	40	" William & Co.	iv	31
Fergusson, James, F.R.S.	i	4	Fryer, Daniel	vii	73
Ferrabee, James, & Co.	iv	30	Gabriel, M., & A.	ii	11
" " "	vi	55	Gadsby, John	ii	6
Ferrey, Benjamin, F.S.A.	i	4	Gale, William	i	1
Ferryman, Rev. E. A.	vi	50	Gallichan & Co.	vi	65
Field & Allan	iii	16	Galloway, W., & J., & Sons	vi	52
" & Turr	ii	6	Gamble, J.	i	3
" J. C., & J	iii	24	Gammie-Maitland, G.	v	44
Field J. C., & J.	v	44	Gardie, Louis	i	3
" J. C. (Testing House)			Gardner, Godden, & Co.	vii	73
" W.	vi	56	" H., & J.	iii	16
Filmer, Thomas Henry, & Son	iii	14	" " "	iii	24
Firth, Edwin, & Sons	iv	30	Garling	i	4
Fisher, F. " " "	iii	18	Garrett, R., & Sons	vi	48
" " " " "	iii	21	" " " " "	viii	74
" " " " "	iv	36	Garrod & Co.	v	44
Fisk, Alfred Samuel	ii	9	Garton, Charles, & Co.	vii	73
" William Henry	i	1	Gas Meter Company	vi	53
Fleet & Co.	v	44	Gas Products Utilising Company	v	44
" " " " "	vi	50	Gaskell, Deacon, & Co.	v	44
Flitch, J. J., & Son	v	46	" Peter	vi	61
Foggin, William	vi	47	Gastineau, Henry	i	2
Foley, J. H., R.A.	i	3	Gatti Brothers	vii	72
Foot & Co.	v	44	Gaunt & Poulter	iv	35
Ford, William B.	i	2	Gaze, George	v	40
Fordyce, T.	ii	6	Geissler, H.	iv	30
Forrest, James A., & Co.	iii	16	Geller, W. O.	i	5
" Messrs.	iii	24	General Iron Foundry Company	iii	24
" " " " " (Testing House)			" " " " " (Testing House)		
Forrester, G., & Co.	vi	54	Geological Survey of " Great Britain	ii	13
Forster & Gregory	v	44	George & Perrett	v	46
Forsyth, James	vi	65	Gibbs, David & William	iii	25
Foster, Reginald Le Neve	ii	9	" " " " "	v	44
Fowke, Capt. Francis (the late)	i	4	" George	iv	37
" Thomas	iii	22	Gibson, John	i	4
Fowler & Co.	vi	52	Gilbert, James	x	89

	Group	Class		Group	Class
Gilbert, John	I	2	Greene, Henry	III	16
" John Graham, R.S.A. (the late)	I	1	Greener, William	IV	37
Giles, J.	I	4	Greening, N., & Sons	V	40
Gilkes, Wilson, Pease and Co.	V	40	Green's Patent Tube Company	V	40
Gill, William	I	1	Greenslade, E. A. & W.	III	26
Gillard, William	II	9	" & Co	VI	65
Gillott, Joseph, & Sons	II	7	Gregory & Co.	III	18
Gillow & Co.	III	14	" James R.	III	21
Gilmour, James, & Co.	II	10	" "	IV	36
Gilpin, W. Sen., & Co.	V	40	" "	V	40
Girdwood, W., & Co.	IV	28	Griffin, Charles, & Co.	II	6
Gisborne, F. N.	VI	66	Griffith & Farran	II	6
Glasgow Jute Company	IV	28	Griggs, W.	II	9
Glass, George Michael	VII	70	Grisbrook, William	II	6
Glendinning, John	IV	30	Grisdale, John Edwin	II	9
Glew, John Henry	IV	35	Groombridge, R., & Son	II	6
Glover, G. & Co.	VI	53	Grout & Co.	IV	31
" " "	III	24	Gruener, L.	I	5
" " "	(Testing House)		Guiblet, Jules Jean Lewis	III	23
" Rev. F.	VI	66	Guinness' Sewing Machine Company	VI	57
" Thomas	VI	53	Gutch, —	II	6
" William Henry & Co.	IV	27	Guynan, J., & Son	VI	65
Glyncorrwg Coal Co.	V	40	Gwynne & Co.	VI	53
Glynrhonwy Slate Company	VI	65			
Godbold, Henry	II	9	Haag, Carl	I	2
Godwin, W.	VI	65	Haas, J. R., & Co.	V	44
Goggin, Jeremiah	III	26	Haden, F. Seymour	I	5
Goodall, Charles, & Son	II	7	Haddan, J. L.	II	6
" " "	II	6	Hadland, A. C., & Co.	V	44
" Edward A.	I	2	Hadley Brothers	V	40
" Frederick, R.A.	I	1	Haes, Frank	II	9
Goode, Thomas	II	7	Haghe, Louis	I	2
" " & Co.	III	17	Haigh, George	IV	30
Goodwin, Albert	I	4	Hailes A. C. & Co.	II	6
Gordon, Alice Isabel	VI	63	Hailstone, H. L. S.	IV	33
Gordon, Sir Watson, R.A. (the late)	I	1	Hall, A. & Co.	II	6
Gossage, W., & Sons	V	44	" George L.	I	2
Gotto, Frederick	VI	65	" John	IV	35
Gould, J. W.	II	8	" Joseph Sparkes	IV	35
Goulding, W., & H. M.	VI	48	" " "	VI	60
" " "	VIII	74	" Robert	VI	56
Gourlay, Brothers, & Co.	VI	66	" " & Samuel	IV	35
Graham, Peter	I	1	" & Frater	IV	30
Grandy, J.	VI	61	" & Udall	IV	27
Grant, Sir Francis, P.R.A.	I	1	" "	IV	30
" & Co.	II	6	" "	IV	31
" & Gask	IV	31	" W. R.	II	6
Graves, Robert, A.R.A.	I	5	" W. Sparkes, & Co.	IV	35
Gray, Eliza Maria	IV	35	Hallam, Frederick H.	II	11
" George	I	2	Hallett, F. F.	VII	67
" "	III	21	Halsted, Rear-Admiral, E.P.	VI	66
" "	IV	36	Hamel, Leopold	IV	33
" James	X	89	Hamilton, Duke of	V	40
Greaves, J. W.	VI	65	" & Binyon	VI	65
Green, —	II	6	" & Co.	III	26
" Alfred	V	40	" William	III	15
" James	III	16	" "	III	14
" Edward, & Son	III	24	Hammer, George M.	X	89
" E., & Sons	VI	52	Hammond, W. Scott	II	7
" "	VI	53	" & Co.	II	6
" John	VII	70	Hamonet, Alfred	II	6
" T.	II	6	Hampson, J., & Co.	VI	62
" William Thomas	I	5	Hancock, Charles	II	9
			" C. F., Son, & Co.	III	21

	Group	Class		Group	Class
Hancock, C. F., Son, & Co.	IV	36	Heaton, Butler, & Bayne	III	15
" " " "	III	23	" " T. & J. "	IV	27
Hands, Son, & Co.	IV	31	Heath, Vernon	II	9
Hanhart, M. & N.	II	6	" William	V	40
Hardman & Co.	III	16	Heeley, James, & Sons	V	40
" " " "	III	21	Hedderley, James	II	9
" " " "	IV	36	Heinrich, Johann	III	26
Hardwick, Philip C., F.S.A.	I	4	Heintzmann & Rochesson	V	40
Hardwicke, R.	II	6	Helbronner, R.	IV	33
Hardy, Frederick D.	I	1	Hemphill, Wm. D., M.D.	II	9
" George	I	1	Hemsley, William	I	1
Hare, George	II	9	Henderson & Co.	III	18
" & Co.	V	44	Henley & Son	VII	73
Harfield & Co.	VI	66	" W. T.	VI	64
Hargreaves & Nusseys	IV	30	Hepburn, I. & T., & Sons	VI	52
Harland & Fisher	III	15	Hepworth, Benjamin	IV	30
" " " "	I	2	Herbert, George (the late)	VI	66
Harlow & Co.	III	14	" Mrs.	VI	66
Harmer, J. M.	VI	65	Hermann, Augustus	IV	35
Harnett, William	II	11	Hernulewicz, E., & Co.	VI	65
Harper & Moores	VI	65	Herring, Son, & Clark	III	14
Harral, Horace	I	5	Hersee & Smyth	III	18
Harris, A. N.	VI	65	Hewitt, William	VI	66
Harrison, Charles	III	18	Hewson, Rev. William	II	12
" Edward	II	6	Heymann & Alexander	IV	33
" F. M.	II	6	Heywood, A., & Son	II	6
" Maria	I	2	Heywood, Higginbottom, Smith, & Co.	III	19
" George, & Co.	IV	30	Hick, Hargreaves, & Co.	VI	54
" & Sons	II	6	" " "	VI	52
Harrod & Co.	II	6	Hickling, W. E.	VI	60
Harrop, George	IV	30	Hickson, William, & Sons	IV	35
Hart, James	IV	31	Higgins, M.	II	6
" David	VI	52	Higgs, Samuel, jun.	V	40
" & Son	V	40	Hill, Joseph	V	40
" " " "	VI	65	" " Vaughan	V	40
" John Walter	VII	70	" J. C., & Co.	VI	53
Hartley, James, & Co.	III	16	" & Smith	VI	48
" John	VI	48	" " "	VI	65
Hartley, John	VIII	74	" " "	VIII	74
Hartshorn, James	IV	33	Hillmer, B.	VI	65
Harvey, Sir George, P.R.S.A.	I	1	Hiley, Charles	IV	30
" J., & Co.	VI	66	Hime & Co.	II	6
Haswell Coal Co.	V	40	Hinchcliffe, Elliot, & Son	IV	30
Hatfield, C. W.	II	6	Hinks, Wells, & Co.	II	7
Hattersley, G., & Sons	VI	56	Hinkson, John	VI	62
Haughton, S. M.	II	6	Hitchcock, Williams, & Co.	IV	32
Hawes, John	X	89	Hobbs, Hart, & Co.	VI	65
Hawkins, Benj. Waterhouse	X	89	Hodge, Oliver H.	VI	57
" J., & Co.	VI	62	Hodges, T. W., & Sons	IV	31
" J., & Sons	IV	27	Hodgkin, John E.	VI	55
Hawthorn, Benjamin	IV	34	Hodgman, G.	III	21
Hay, Margaret	X	89	" " "	IV	36
" W. J.	VI	66	Hodgson, E. D.	VI	65
Hayes, Edwin, R.H.A.	I	2	" G.	VI	56
" Crossley & Bennett	V	40	Hodgson, John Evan	I	1
Haylar, James	I	1	" & Simpson	V	44
Hayman, Mrs.	IV	33	Hoff & Sons	III	18
Haynes & Son	VI	62	Hogg, J., & Sons	II	6
Haythorn, J. W.	IX	83	Holdsworth, Samuel	III	23
Hayward, Charles Forster, F.S.A.	I	4	Holl, Francis	I	5
Head, John " " "	III	14	Holland, John	V	40
Head, John	VI	62	" William	V	44
Heal and Son	III	15	" & Sons	III	14
Heald, Benjamin	II	8			
Heaton, Ralph, & Sons	II	12			

	Group	Class		Group	Class
Holliday, W.	III	21	Hunt, Alfred William	I	1
" "	IV	36	" Joseph, & Sons	II	6
Holme, George	IV	31	" & Roskell	III	21
Holmes, H., & A.	VI	61	" "	IV	36
Holt, Amos, & Co.	IV	29	" & Winterbotham	IV	30
Home & Colonial School Society	X	89	" William, & Co.	II	6
Hook, James C., R.A.	I	1	" " Holman	I	1
" " "	I	5	" " (the late)	I	2
Hoole, Henry, & Co.	III	22	Hunter, W., & J. R.	III	14
Hooper, William	VI	64	Huntley & Palmer	VII	68
" & Co.	VI	61	Hurlet & Campsie Alum Company	V	44
Hopcraft & Co.	VI	66	Hurlstone, Frederick Y.	I	1
Hopkin & Williams	V	44	Hurst, Capt. J. W.	VI	66
Hopkins, Robert	VI	65	" & Blackett	II	6
Hopkins, Robert P.	II	9	Huskisson, W., & Sons	V	44
Hopwood & Crew	II	6	Hutchings, James John	IV	35
Horne, Robert	III	19	" & Romer	II	6
" & Thornthwaite	II	12	Hutton, J., & Sons	VI	61
Hornsby, R., & Sons	VI	48	Huxhams & Brown	VI	51
" " "	VIII	74	" " "	VI	66
Horrockses, Miller, & Co.	IV	27	Hyde & Co.	II	7
Horsfall, William	VI	55	Hydraulic Tube Drawing and Steel Ordnance Company	VI	53
Horticultural Journal, Proprietors of	II	6	" " "	VI	54
Horsley, John C., R.A.	I	1	Hynam, John	V	40
Hosegood & Co.	V	44	" " "	VI	47
Hosmer, Archibald Wm.	II	9	FAnson, Edward	I	4
Houldsworth, J.	II	6	" W.	III	21
Hounsell, H. E.	VI	49	" " "	IV	36
" " "	IV	28	Isbottson, Thomas H.	II	7
Hotten, J. C.	II	6	Illingworth, George	IV	30
Houlston & Wright	II	6	Illustrated News, Proprietor of	II	6
House of Lords and Parliament	II	6	Improved Industrial Dwellings Co.	X	93
Houston, Henry, & Son	IV	30	Inchbold, J. W.	I	1
How, James	II	9	Ind, Coope, & Co.	VII	73
Howard, J. & F.	VI	48	India-rubber and Telegraphic Works Company	VI	52
" " "	VIII	74	" " "	VI	64
" " "	VI	52	Industrial Depository	IV	33
" & Bullough	VI	55	Ingham, J., & Sons	VI	56
" & Sons	III	14	Ingledeu, Charles	III	14
Howards & Sons	V	44	Inglis, A., & J.	VI	66
Howe, Joseph, & Co.	IV	31	Irvin & Sellers	VI	56
Howell, —	II	6	Ivall & Large	VI	61
" C. H.	I	4	Ivory & Prangley	II	10
" James, & Co.	III	21	Jackson, J.	III	21
" " "	III	23	" " "	IV	36
" " "	III	26	" & Graham	III	14
" " "	IV	36	" " "	III	18
Howitt, R. T.	V	40	" George & Sons	III	15
" William	IX	83	" Walford, & Hodder	II	6
Howgate, James, & Sons	IV	30	Jacob, A., & Co.	III	21
Howse, Mead, & Sons	IV	30	" " "	IV	36
Hudson, Alfred	IV	35	Jacoby, M., & Co.	IV	33
" " "	VI	48	Jaffe Brothers	IV	28
" " "	VIII	74	Jamaica Cotton Co.	VII	67
" Samuel	VI	62	James, Foundry Company	V	40
Hughes, Arthur	I	1	" H. Benson	VI	66A
" & Kimber	II	7	" Isaac	VI	48
" & Hesketh	V	40	" " "	VIII	74
" H., & Co.	VI	63	" Joseph	I	4
Hull, James	II	6	Jarrett, Griffith	II	8
Humphreys & Co.	VI	65	Jarrod & Sons	II	6
Humphries, James, & Sons	III	18	Jarrow Chemical Company	V	44
Humphrys & Tennant	VI	66			
Hunt, Alfred William	I	2			

	Group	Class		Group	Class
Jassman, L.	VI	62	Kelsall & Kemp	IV	30
Jeakes & Co.	III	24	Kemp, Stone, & Co.	IV	31
Jeaneret, Francis Crosbie	II	9	Kendall, Thomas H.	III	26
Jefferies & Malings	IV	39	Kennedy's Patent Water Meter Co.	VI	53
Jefferys & Co.	II	6	Kensett, James	III	24
Jeffrey, William	II	9	" " " " " (Testing House)		
" & Co.	III	19	Kent, George	VI	50
Jeffries, W.	VI	63	Kent, George Barton, & Co.	III	26
Jenner & Knewstubb	II	8	" W. & Co.	II	6
" " " " "	III	26	Kerr, Robert	I	4
Jennings, George	VI	65	" Scott, & Co.	IV	32
Jesse, George R.	I	5	Kershaw, Thomas	VI	65
Johannsen, Hans Christian	III	23	Kesselmeyer & Mellodew	IV	27
Johnson & Rowe	III	26	" " " " "	IV	31
" Sons	V	44	Keyl, Frederick William	I	1
" Jabez & Fildes	IV	27	Kimpton, Thomas	II	12
" J. Marshall	IV	27	King, F., & J. L.	III	26
" J. M., & Son	II	6	King & Brown	III	24
" Matthey, & Co.	V	40	Kinnear, F.	VI	66
" " " " "	V	44	Kirby, Beard, & Co.	V	40
" " " " "	VI	51	Kirkman, Joseph, & Son	II	10
" Richard, & Nephew	V	40	Kitchin, Joseph	VII	67
Johnston, Alexander	I	1	Kitson & Co.	VI	63
" James	IV	30	Knight, John P., R.A.	I	1
" Fraser, & Co.	III	24	" J., & Sons	V	44
Jolly, R.	VI	50	" & Co.	II	6
Jonas, Simonsen, & Co.	III	18	" Mary	X	91
Jones & Levick	VI	47	Knights, H.	II	6
" Willis	III	15	Knowles, John	VI	65
" Baynham	II	9	Kohnstamm, Herman	III	17
" Benjamin	V	40	Kullberg, Victor	III	23
" C. W.	IV	37			
" George	III	17	Lachenal, Elizabeth	II	10
" Horace	I	4	Lacy, H. C.	VI	65
" John	III	23	Ladd, William	II	12
" " " " "	VI	66A	Lafitte, C.	III	21
" Mary Jane	IV	33	" " " " "	IV	36
" Orlando, & Co.	V	44	Lagrange, Comte de	III	21
" " " " "	VII	67	" " " " "	IV	36
" Owen	I	4	Laing & Irvine	IV	30
" William Henry, & Son	V	46	Laird, Brothers	VI	66
Jopling, Joseph M.	I	2	Lamb, E. B.	I	4
Jordan, James	IV	30	" James	III	14
Joseph, S., & Son	III	26	" John	II	7
Joubert, Amédée	III	14	Lambe & Sterry	V	44
" Ferdinand	I	5	Lambert Brothers	VI	53
" " " " "	II	9	" T., & Sons	VI	53
Jowett, John	IV	34	La Moele, F.	VIII	79
Jowitt, Thomas, & Son	V	40	Lamont, T. R.	I	2
" Robert, & Son	V	43	Lancaster, Alfred	IV	37
Juleff, John	VI	47	Lancashire Patent Safe Co.	V	40
			Land, John	III	19
Kay & Richardson	IV	31	Landseer, Sir Edwin, R.A.	I	1
" " Reid	III	26	" Thomas	I	5
" " " " "	VI	66	Lane, Richard J., A.R.A.	I	5
Kearsley, Henry & George	VI	48	" Thomas, & Co.	IV	34
" " " " "	VIII	74	Lang, Joseph	IV	37
Keeling, E. B.	I	4	Langdale, E. F.	V	44
Keen, Robinson, Bellville, & Co.	VII	72	Langley, J., & Son	IV	30
Keighley, J., & Co.	VI	56	Langton & Bicknells	V	44
Keith, George	VI	50	Langworthy Brothers, & Co.	IV	27
" W.	V	40	Lapworth Brothers	III	18
Kell & Co.	IV	30	Laurie & Marnar	VI	61
Kelly, Charles	II	10	Lavers & Barraud	III	16
" & Co.	II	6	" " " " "	V	40

	Group	Class		Group	Class
Laverton, Abraham	IV	30	Lloyd, Martin	V	40
Law, James	II	11	„ & Lloyd	VI	53
„ & Sons	II	7	Lloyd's Register of British and		
Lawlor, John	I	3	Foreign Shipping	VI	66
Lawson, S., & Sons	VI	55	Lobb, John	IV	35
Lawton, George (executors of) .	IV	30	Lock & Whitfield	II	9
Layton, C. & E.	II	6	Lockwood & Co.	II	6
Leach, Flower, & Co.	V	40	„ H. F.	I	4
Leader, Benjamin, William . . .	I	1	Lomax, T. G.	II	6
Leamington Kitchen Range Co. .	III	24	London Lac Dye Company . . .	V	44
„ Wheel Works Co.	VI	61	„ Lace Paper Company . . .	II	7
Leath & Ross	II	6	„ Manure Company	VI	48
Leather Cloth Company	III	18	„ „ „ „ „ „ „ „ „	VIII	74
Leathley, James	IV	30	„ Stereoscopic „ Company . .	II	9
Leaver, James	V	40	„ Warming and Venti-		
Leech, John (the late)	I	2	lating Company	III	24
Leeds Chamber of Commerce . .	IV	28	„ „ „ „ „ „ „ „ „		(Testing House)
Leeds Woollen Association . . .	IV	30	„ and Westminster Meter		
Leeming, J., & Son	VI	56	Company	VI	53
Leighton, —	II	6	Long, Edwin	I	1
„ Frederick, A.R.A.	I	1	Longdon, T., & Co.	II	11
„ John	II	6	Longman & Co.	II	6
„ „	III	24	Lonsdale and Co.	II	6
„ „ „ „ „ „ „ „ „		(Testing House)	Loth, John Thomas	X	89
„ Brothers	II	6	Lothian & Co.	II	6
Leiper, W.	I	4	Loughtea, Slate Quarry Com-		
Leitch, William L.	I	2	pany	VI	65
Lemäle, T., & Co.	II	11	Lovegrove, John James	III	15
Le Maout, A.	V	44	Loveridge, H. & Co.	III	14
Lemon, C.	I	5	„ „ „ „ „ „ „ „ „	V	40
Leng, Josh. W.	II	6	Lovey, Edward	II	9
Leonardt & Catwinke	II	7	„ „ „ „ „ „ „ „ „	VIII	81
Leoni, Sigismund	VI	53	Low Moor Iron Company	V	40
„ „	III	24	„ Son, & Marston	II	6
„ „	VI	55	Lowe, Charles, & Co.	V	44
Leslie, George	I	1	„ Frederick	III	21
Lester, T., & Sons	IV	33	„ „ „ „ „ „ „ „ „	IV	36
Letts & Son	II	6	Lowenthal, J.	II	6
„ Son, & Co.	II	7	Lucas, John, & Co.	VI	50
Leuchars, William	III	26	Lucy, Charles	I	1
Levi, Joseph, & Co.	II	12	Ludlow, E., & A.	IV	37
Levin, Phöbus	I	1	Ludoff, Henry	IV	28
Lewis, Charles G.	I	5	Lukin, F. H.	II	10
„ Charles J.	I	1	Lumley, Henry	VI	66
„ „	I	2	Lund, Waldemar, & Co.	III	21
„ G. E.	IV	37	„ „ „ „ „ „ „ „ „	IV	36
„ James	III	25	Lundgren, Egron	I	2
„ John Frederick, R.A.	I	1	Lupin, Auguste	III	21
„ Professor Thos. H.	I	4	„ „ „ „ „ „ „ „ „	IV	36
„ Leonard	IV	35	Lynn, William H.	I	4
„ Thomas Robert	VI	65	Lyon, A.	VI	50
Lilleshall Company	VI	63	„ J. T.	III	16
„ „	V	40	Lyons, William	II	7
Lilley, J., & Son	VI	66			
Lillywhite, James B., & Co. . .	IV	39	MacCallum, Andrew	I	2
„ John	IV	39	„ „	I	1
Linnell, John, Sen.	I	1	„ D.	VI	66A
„ Thomas G.	I	1	Macdaniel, Charles, & Co. . . .	III	20
„ William	I	1	Macdonald, Field, & Co. . . .	V	40
Linton, W. J.	I	5	„ J.	VI	66
Lister, George	VI	55	Macfarlan, J. F., & Co.	V	44
„ W.	II	6	Macfarlane	II	9
„ & Co.	IV	31	Macintosh, C., & Co.	VI	64
Livesey, Henckel, & Co.	VI	56	„ William	II	6
Lloyd, Charles	VI	53	Mack, T. W.	II	6

	Group	Class
Mackay, John	V	44
" " " " " " " " " " " "	VII	72
Mackenzie, Captain James D. . .	IV	37
" " " " " " " " " " " "	VI	66A
" " " " " " " " " " " "	IV	39
" " " " " " " " " " " "	II	6
Maclean, Lizzie	IV	33
Macleay, Kenneth, R.S.A.	I	2
MacLeod of MacLeod	VI	66A
MacLure, Macdonald, & Macgregor	II	6
Macmillan & Co.	II	6
MacNee, Daniel, R.S.A.	I	1
McAdam, William	VI	47
McCracken, A.	VI	62
McCraw, E. C., & Co	VII	72
McCulloch, George	I	1
" " " " " " " " " " " "	I	1
McDougall Brothers	V	44
McDowell, John	VI	61
McIntyre, Hogg, & Buchanan . .	IV	34
" " " " " " " " " " " "	IV	30
McInnes, Robert	I	1
McKewan, David H.	I	2
McLean & Hope	VI	48
" " " " " " " " " " " "	VIII	74
" " " " " " " " " " " "	II	9
McNaught & Smith	VI	61
McNaughtan & Thom	V	45
McRae, W., & G.	V	46
McSherry, Michael	III	24
" " " " " " " " " " " "	VI	48
" " " " " " " " " " " "	VIII	74
Magnus, George Eugene	III	14
Mahony, Martin, & Brothers . .	IV	30
Major, H. J., & C.	VI	65
Makepeace, Samuel	VII	71
Malkin & Co.	III	17
" " " " " " " " " " " "	VI	65
Mallet, Henry	IV	33
Mallet, Robert	VI	65
" " " " " " " " " " " "	VI	66A
Mallinson, Knapton, & Co	VI	55
Manby, John, & Co.	IV	30
Mancini, Elizabeth Browne . . .	IV	33
Mander Brothers	V	44
Manico, Lieut. Edward	VI	65
Manly, George N.	IV	33
Maplestone, Henry	I	2
Mappin, Webb, & Co.	III	21
" " " " " " " " " " " "	IV	36
" " " " " " " " " " " "	III	20
March, Thomas Charles	III	16
Margetts, Henry	I	2
Marks, Henry S.	I	1
Marlborough & Co	II	6
Marling & Co.	IV	30
" " " " " " " " " " " "	IV	30
Marrison, Robert	IV	37
Marsden, Charles	III	19
" " " " " " " " " " " "	II	11
Marshall, Sons, & Co.	VI	48
" " " " " " " " " " " "	VIII	74
" " " " " " " " " " " "	I	1
" " " " " " " " " " " "	VIII	72

	Group	Class
Marshall, W., & Co.	III	21
" " " " " " " " " " " "	IV	36
Martin Brothers	V	40
" " " " " " " " " " " "	VI	61
" " " " " " " " " " " "	VI	66
" " " " " " " " " " " "	II	8
" " " " " " " " " " " "	VI	53
" " " " " " " " " " " "	IV	27
" " " " " " " " " " " "	II	8
" " " " " " " " " " " "	IV	34
" " " " " " " " " " " "	VI	62
Martineau, Robert B.	I	1
" " " " " " " " " " " "	V	40
Masey, P. E.	I	4
Mason, George	IV	31
" " " " " " " " " " " "	V	44
" " " " " " " " " " " "	IV	35
" " " " " " " " " " " "	II	9
" " " " " " " " " " " "	VI	61
Mason & Co.	II	9
Massey, B. & S.	VI	54
Masterman, T.	III	21
" " " " " " " " " " " "	IV	36
Masters, J., & Son	I	6
" " " " " " " " " " " "	II	11
Matchwick, William	VI	50
Matier, Henry, & Co.	IV	28
Maudslay, Sons, & Field	VI	66
Maw & Co.	VI	65
Mawley, George	I	2
Mawson & Swan	II	9
Maxwell, H., & Co.	VI	62
May & Baker	V	44
" " " " " " " " " " " "	VI	66
Mayall, John Edwin	II	9
" " " " " " " " " " " "	V	44
Mayer Brothers	II	9
Meagher, Patrick	II	9
Measom, W.	I	5
Mellor, T., & Sons	IV	30
Melton, Henry	IV	35
Mercer, Thomas	III	23
Merrick & Co.	II	9
Merryweather & Sons	VI	53
Mesnil, Baron Oscar de	VI	63
Messenger, T. G.	IX	83
Metford, W. E.	IV	37
Metzler & Chappell	II	6
Metropolitan Association for Improving Dwellings of In- dustrial Classes	X	93
Mickethwaite,	II	6
Middleton, Answorth, & Co. . . .	IV	29
Milburn, J.	IX	83
Millais, J. Everett, R.A.	I	1
Millar, John	IV	37
" " " " " " " " " " " "	IV	37
" " " " " " " " " " " "	III	16
Miller & Richard	VI	59
Mills, —	II	6
Millward, J. F.	V	40
Milner and Sowerby	II	6
Milward, Henry, & Sons	V	40
" " " " " " " " " " " "	VI	60
Minton & Co.	III	17

	Group	Class		Group	Class
Minton, Hollins, & Co.	VI	65	Murray, Barnaby A.	VI	55
Mitchell, C., & Co.	VI	66	„ „ Duncan	VI	66
„ James, & Co.	IV	30	Museum of Practical Geology	VI	47
„ John	II	6	Musgrave Brothers	III	24
„ Joseph	V	40	„ „	(Testing House)	
„ & Shepherd	IV	29	„ „	VIII	75
Mitford, Bertram	X	89	Music Library Company	II	6
Mogford, John	I	2	„ Publishing Company	II	6
Moir, Edward	I	2	Muspratt, James, & Sons	V	44
„ & Haigh	II	9	Musselwhite, J.	VI	64
Mole, J. H.	I	2	Mutrie, Miss A. F.	I	1
„ Charles	IV	35	„ M. D.	I	1
Monkbridge Iron Co.	V	40	Myers, Michael	IV	38
Monro, J.	IX	83	„ M. & Son	II	7
Montgomery, A. de	III	21	Nadal, J., & Co.	VI	53
„ „	IV	36	Nall, George	III	15
Moon, Washington	II	6	Nairn, M., & Co.	III	18
Mooran, James	III	26	Naish, —	II	10
Moore, Edwin, & Co.	V	40	Napier, R., & Sons	VI	66
„ E., & Co.	VI	53	Nasmith, David	X	89
„ Henry	I	1	National Asylum for Idiots	X	91
„ & Manby	V	40	Naylor, R.C.	III	21
„ & Weinberg	IV	28	„ „	IV	36
Mordan, Francis	II	7	Neal, John	III	21
Morel, Victor	VI	59	„ „	IV	36
Moreton, John & Co.	V	40	Neighbour, G., & Sons	V	43
Morewood & Rogers	V	40	„ George, & Sons	VIII	81
Morgan & Howarth	VI	63	Neilson Brothers	VI	54
„ John	I	1	Nelson, T., & Sons	II	6
„ „	II	6	„ Thomas, & Sons	II	13
„ E., & G. H.	VI	61	Ness, J. L., & Co.	IV	30
Morini, C. de	III	16	Nettleton, Oliver	IV	30
Morley & Co.	III	16	Nevill, Lady Dorothy	III	14
„ P. R.	I	61	Newall, D. H., & J.	V	40
„ W. W.	II	7	Newby, T. C.	II	6
Mornewick, Charles Augustus	I	2	Newcastle, the Duke of	III	21
Morris, J. S. C.	II	16	„ „	IV	36
Morrison, J., & R.	IV	30	Newcombe, Charles Thomas	II	9
Morson, Thomas, & Son	V	44	Newey, Thomas	III	21
Morton & Sons	III	18	„ „	IV	36
„ George & Joseph	III	20	Newman, Charlotte T.	II	8
„ John Thomas	VII	70	Newman James	II	7
Mortyn, W., & P.	V	45	„ P. H.	III	16
Mottram, Charles	I	5	Newton, Alfred P	I	2
Moule's Patent Earth Closet Co.	VI	65	„ Marcus B.	VI	65
Mourant, John	II	12	„ & Braddock	VI	53
Moxon, J., & Co.	II	6	„ Wilson, & Co.	VI	57
Mozley, E., & Co.	II	6	Nicholl, Benjamin	VI	65
Muckleston, Rev. E.	V	40	Nicholls, Thomas	VI	65
Mudd, James	II	9	Nicholson, Hamlet	IV	39
Mulliner, F.	VI	61	„ W. N.	VI	48
„ H.	III	26	„ „	VIII	74
„ „	VI	61	„ „	VI	53
„ „	III	24	„ „	III	23
„ „	(Testing House)		Nicol, Erskine	I	1
Mulley, W. R.	VI	66	Nicoll, D.	VI	64
Munro, Alexander	I	3	Nicoll, Lieut.-Col. Edward	IV	28
„ William	VI	50	Nightingale & Co.	IV	29
Munt, Brown, & Co.	IV	35	Nimmo, T., & Co.	V	44
Murby, Thomas	II	6	„ W. P.	II	6
Murray, Andrew	X	90	Nisbet, James, & Co.	II	6
„ John	II	6	Nolan, Peter	VI	66
„ James	II	6	Noone & Co.	VI	48
„ „	I	4			
„ Robert	II	9			

	Group	Class		Group	Class
Noone & Co.	VIII	74	Palmer, William J.	I	5
Norgate, Frederick	II	6	Palmer's Ship-building and Iron Company	VI	66
Norman & Co.	III	14	Pantoscopic Company	II	9
„ John	II	12	Parker, C., & Son	VI	56
„ Samuel	V	41	„ J. H. & James	II	6
„ S., jun.	II	11	Parkes, Alexander	V	44
„ Samuel Wills	IV	35	„ J. I.	V	40
„ S. W.	IV	38	„ Palmer, & Hodgkinson	VI	48
„ S. W.	VI	61	„ „ „ „	VIII	74
North British Rubber Com- pany	VI	52	Parkins, Thomas	V	44
North Gunbarrow Clay Com- pany	V	40	Parkinson & Frodsham	III	23
North Moor Foundry Company	VI	53	Parr, T.	III	21
North Wales Coal Oil Company	V	40	„ „ „ „	IV	36
Norton, John	I	4	Partridge, S. W.	II	6
Norwich Crape Company	IV	31	Patchitt, Edwin Cheshire	VII	72
Nottingham Manufacturing Company	IV	34	Patent Concrete Stone Com- pany	VI	65
Novello & Co.	II	6	Patent Nut and Bolt Com- pany	V	40
Nunn, William	VI	66	Patent Plumbago Crucible Company	V	40
Nutt, D.	II	6	„ „ „ „	VI	47
Oakes, J. Wright	I	1	Patent Printing Surface Com- pany	II	6
„ „ „ „	I	2	„ „ „ „	VI	59
O'Connell, Mrs. A.	IV	33	Patent „ Woollen Cloth „ Com- pany	III	18
O'Connor, A., & W. H.	III	15	Pateson, Robert	II	9
Oetzmänn, —	II	6	Paton, Sir J. Noel, R.S.A.	I	1
Offord, J. & R.	VI	61	Paton, Waller H., R.S.A.	I	1
Ogleby, Charles, & Co.	V	44	„ „ „ „	I	2
Olipphant & Co.	II	6	Patrick, Hugh William	II	11
Oliver & Boyd	II	6	Paul, Matthew, & Co.	VI	53
„ „ „ „	X	89	„ „ „ „	VI	66
Oliver, Mrs. W.	I	2	Payne, J. Bertrand	II	6
Ollivier & Co.	II	6	Peach, —	II	6
Olley, William Henry	II	9	Peake, Thomas	VI	65
O'Neil, Henry, A.R.A.	I	1	Peal & Co.	IV	35
O'Neill & Thompson	II	11	Pears, A., & F.	III	25
„ „ „ „	III	20	Pearson, George	I	5
Oram, G. J.	III	23	„ John, L., F.S.A.	I	4
Orchardson, W. Quiller	I	1	Peek, Frean, & Co.	VII	68
Ordish & Le Feuvre	VI	65	Peel, Greenhalgh, & Co.	IV	31
Ordnance Survey of Great Britain	II	13	Pegler, Charles, & Co.	IV	28
Orkney, the Earl	VI	53	Pellatt & Co.	III	16
Ortner & Houle	II	8	Pemberton, Abraham	III	26
Osborne, Emily	I	1	Pentony, Henry	IV	34
Osler, F., & C.	III	15	Penn, J., & Son	VI	66
Oswald & Co.	VI	66	Pennethorne, James	I	4
Owen, Arthur James, & Co.	III	15	Penney & Co.	VI	48
Owen's Patent Wheel Tyre & Axle Company	VI	63	„ „ „ „	VIII	74
Owen, W. L.	VI	63	Penny, George Stothert	II	9
Oxford University	II	6	Penrose, F. C., M.A.	I	4
Pache, Charles	II	11	Perks, Samuel	III	25
Packer, Manlove, & Co.	IV	33	Perkins, Loftus	III	24
Packard, E., & Co.	VI	48	„ „ „ „	(Testing House)	
„ „ „ „	VIII	74	Perry, James, & Co.	II	7
Page, Edward Joseph	IV	39	„ William	III	26
„ T.	II	6	Perrens & Harrison	V	40
„ J.	V	40	Peters, T., & Sons	VI	61
Palliser, Major W.	VI	66A	Petman, Mullar, & Co.	V	44
Palmer, Samuel	I	2	Petre & Tucker	III	16
„ „	I	5	Pettie, John, A.R.A.	I	1
			Pettitt, Wyatt John	VIII	81

	Group	Class		Group	Class
Petito, E., & Co.	IV	37	Primavesi, F., & Sons	III	17
Peyton & Peyton	III	14	Prince, Miss	X	89
Phillip, George & Son	X	89	Prinsep, Val. C.	I	1
" John, R.A. (the late) . .	I	1	Prichard, J.	I	4
Phillips, Henry W.	I	1	"	V	40
" W. Wyndham	I	2	Proprietor of the Illustrated		
" W. P., & G. & Pearce . .	III	16	London News	II	6
" Brothers	III	21	Prosser, —	II	6
"	IV	36	Puckridge, F., & Nephew . . .	V	46
" Thomas, & Co.	III	24	Pugh, Brothers	II	8
" " " (Testing House) . .			Pulford, G. C.	V	44
Phillip, Charles James	III	24	Pulham, James	VI	65
Phoenix Patent Bolt and Nut			Pullinger, Colin	VI	49
Company	V	40	Pullman, R. & J.	V	46
Pickering, B. M.	II	6	Pure Literature Society	X	89
Pickersgill, Frederick Richard,					
R.A.	I	1	Radeliffe, S., & Sons	IV	27
Picksley, Sims, & Co.	VI	48	Radclyffe, & Co.	III	24
" "	VIII	74	Radford, Miss	IV	33
Pierre, Alexandre	III	26	Ramage, John, & Co.	II	7
Piesse & Lubin	III	25	Ramsden, J. C.	VI	56
Pike, W., & J.	V	40	" —	II	10
Pim Brothers & Co.	IV	31	Randall & Way	IV	30
Pinder, Bourne, & Co.	III	17	Randel, W., & J.	III	21
Pitman, Issac	II	6	" W., & J.	IV	36
Pitt Brothers	VI	57	Randolph, Elder, & Co. . . .	VI	35
Plant, B., & Co.	IV	34	"	VI	66
Platt Brothers & Co.	VI	55	Rankley, Alfred	I	1
" James, & Co.	IV	30	Ransom, William	III	25
Playar, George	IV	35	"	V	44
Podd, Thomas, & Co.	IV	30	Ransome, F.	VI	65
Pols, John A.	V	43	Ransomes & Sims	VI	48
Pontifex, H., & Sons	VI	50	" "	VIII	74
Poole, John	III	23	" "	VI	52
" Paul Falconer, R.A. . . .	I	1	Raven, John	I	1
Pooley, H., & Son	VI	63	Ravenhill, Hodgson, & Co. . .	VI	66
Portal, W. S., & R.	II	7	Raynbird, Caldecott, Bawtree,		
Porter, C. T.	VI	52	Dowling, & Co.	VII	67
" J. T. B., & Co.	VI	51	Read, Mrs. L.	II	10
Posselt, E., & Co.	IV	31	" Samuel	I	2
Postmaster-General	VI	60	" William	III	15
Potter, C., & J. G.	III	19	Reading Iron Works	VI	48
" J.	V	40	" " "	VIII	74
Potts, Robert	X	89	Reckitt & Sons	V	40
Pouncy, John	II	9	" Isaac, & Sons	V	44
Powell, James, & Sons	III	16	" "	VII	67
" & Cree	IV	33	Redfern, J. F.	VI	65
Powis, C., & Co.	VI	54	Redford, G.	II	11
" " "	VI	58	" "	VI	66A
" James, & Co.	VI	54	Redgrave, Gilbert	VI	65
" " "	VI	58	" "	I	4
Pratt, —	II	6	" Richard, R.A.	I	1
" Brothers & Farmer	V	40	" "	I	2
" " "	VI	60	" "	I	5
Preece, W. H.	VI	63	Redwood's Patent Company . .	VII	70
Prentice & Co.	VI	66A	Reed & Fox	VI	59
Preserved Provision Company .	VII	70	" Thomas, & Co.	II	6
Price, Astley Paston	V	44	Rees & Gripper	II	6
" Dr. David S.	V	40	Reeve & Co.	II	6
" " "	V	44	Reeves, Charles	IV	37
" Joseph & Charles, &			" & Sons	II	7
Brothers	III	17	Registrar General of Seamen .	VI	66
" Napoleon, & Co.	III	25	Reid, Andrew	I	5
Price's Patent Candle Company	V	44	" Patrick Sandeman	V	40
Priestley Brothers	VI	56	Reilly, E. M., & Co.	IV	37

	Group	Class		Group	Class
Rein, F. C., & Son	II	11	Ross, Sir William (the late)	I	2
„ Mrs. F. C.	II	11	„ Thomas	II	9
Religious Tract Society	II	6	Roth, Dr. M.	II	11
„ „ „	X	89	Rouch, W. W.	II	9
Remington, Arthur	III	25	„ W. W., & Co.	II	9
Renshaw H.	II	6	Routledge, Warne, & Co.	II	6
Rennie, J., & G.	VI	66	Rowatt, Thomas, & Son	III	24
Reuter, Julius	VI	64	Rowbotham, J. L.	I	2
Reynolds, James	II	6	Rowley, Charles	III	15
„ Joseph, & Sons	II	6	Rowney, George, & Co.	II	6
Rhodes, D., & Sons	IV	30	„ „ „	II	7
„ J. & Son	VI	54	Royal National Life Boat Insti- tution	VI	66
Rich & Son	V	40	„ Worcester Porcelain Works	III	17
Richardson, Thomas Miles	I	2	„ Society for Protection of Life from Fire	VI	53
„ Duck, & Co.	VI	66	Rudall, Rose, & Co.	II	6
„ J.	VI	50	Rumsey, William S.	V	44
„ Richard	III	15	Russell, G., & Co.	VI	52
„ R.	VI	63	„ George Fitzjames	III	24
„ T., & Son	II	6	„ „ „	(Testing House)	
Riches & Watts	VI	50	„ J., & Co	VI	53
Richmond & Chandler	VI	48	„ & Co.	VI	61
„ „ „	VIII	74	„ James, & Sons	VI	53
Ridgway, W.	II	6	Rüst, J., & Co.	VI	65
Ridge, Alfred M.	I	4	Ruston, Proctor, & Co.	VI	48
Riley Brothers	IV	30	„ „ „	VIII	74
Rimmel, Eugene	III	25	„ „ „	VI	52
Ripley, Edward, & Son	V	45	Ryder, William H.	VI	49
Ritchie, J. H., junr.	VI	66	Sachs, John	I	5
Ritherdon, E.	VI	66	Saddler, John	II	6
River Wear Commissioners	VI	65	Samon, Gustave Théodore	II	8
Riviere, Henry Parsons	I	2	Salt Chamber of Commerce	VII	72
Rivière, Robert	II	7	Salt, Thomas Partridge	II	11
Rivington & Co.	II	6	„ Titus, & Co.	X	93
Robb, A., & Co.	VII	72	Salter, Samuel, & Co.	IV	30
Robbins & Son	VI	65	„ C.	VI	56
Robert, Auguste	IV	35	„ William	I	1
Roberts, David, R.A. (the late)	I	1	Samuda Brothers	VI	66
„ Jowlings, & Co.	IV	30	Samuels, Henry	IV	27
„ J., & Sons	V	61	Samuelson & Co.	VI	48
„ William	VI	53	„ „ „	VIII	74
Robey & Co.	VI	48	Sanderson, R. & A., & Co.	IV	30
„ „ „	VIII	74	Sandham, Henry	VI	65
Robins, Edward, C.B.	I	4	Sant, James, A.R.A.	I	1
Robinson, A. A.	VI	65	Saunders, Thomas Harry	II	7
„ George Thomas	II	8	„ Ottley, & Co.	II	6
„ Henry Peach	II	9	Savory & Moore	II	11
„ J.	VI	63	„ „ „	V	44
„ J. H., A.R.A.	I	5	Saxby & Farmer	VI	63
„ J., & Co.	VI	59	Saynor & Cooke	IX	83
„ T., & Son	VI	54	Scard, Anthony	IV	35
„ „ „	VI	58	Schäfer, P., & F.	III	26
„ Vincent, & Co.	III	18	Schenck, Frederick	II	6
„ William	VI	50	Schetky, John Christian	I	2
Roebuck, D. L.	II	6	Schlesinger, Louis	V	44
Rock & Son	VI	61	Schofield, J., & Sons	IV	30
Rogers, George A.	III	26	Scholl, John	III	24
„ E. S., & Co.	V	43	„ „ „	(Testing House)	
„ W., & Co.	VI	61	Schooling & Co.	VII	74
Rola	II	6	Schweitzer, H., & Co.	V	44
Rolls, Master of the	II	6	Schweppe, Jacob, & Co.	V	44
Romanes & Paterson	IV	30	Science & Art Department	II	6
Rooke, George	VI	65			
Rorke, John	III	15			
Rose, William A.	V	44			
Ross, James	II	9			

	Group	Class		Group	Class
Science & Art Department	II	8	Simmons, William H.	I	5
"	V	41	Simpkin, Marshall, & Co.	II	6
"	VI	60	Simpson, Mary	II	8
"	VI	65	" R. E., & Co.	VI	57
"	VII	67	Sinclair & Co.	II	6
"	X	89	Singer, J. W.	V	40
Scoggins, J.	II	6	Sissons & White	VI	65
Scott, G. Gilbert, R.A., F.R.S.	I	4	Sketchley, William	VI	54
"	VI	65	Skidmore's Art Manufactures & Construction Iron Company	III	21
" H., Lieut.-Colonel, R.E.	VI	65	Skidmore's Art Manufactures & Construction Iron Company	III	22
" Henry D.	III	26	"	V	40
" James	I	5	"	VI	65
" Robert	IV	30	Slater, Isaac	II	6
" Walter	IV	30	" William	I	4
" W. B.	I	4	" & Carpenter, R.H.	I	4
" Wentworth Lascelles	II	12	" Buckingham, & Co.	IV	31
"	V	44	Slatter, Albert	II	8
"	X	89	Smaile, R., & Co.	VI	47
" A., & Son	IV	30	Smallfield, Frederick	I	1
" Cuthbertson, & Co.	III	19	"	I	2
" F. R., & Co.	IV	30	Smalpage & Son	IV	30
" James, & Sons	IV	30	Smee, William, & Sons	III	14
" Robson John	II	7	Smith, Alfred, & Co.	II	6
" William, & Co.	V	40	" Collingwood	I	2
Scowen, Thomas L.	II	10	" Edward, M.D.	II	12
"	III	15	" Elder, & Co.	II	6
Seamer, Th. & Son	IV	31	" Frank, & Co.	III	15
Searle & Sons	VI	66	"	IV	33
Seddon, Charles	III	14	" G. & A.	IV	32
" John P.	I	4	" John Wright	V	40
Sedley, Angelo, J.	III	14	" John, & Samuel	VI	56
Seeley, Jackson, & Co.	II	6	" Mrs. M.	IV	33
Severn, Arthur	I	2	" Thomas R.	I	4
Sewill, John	III	23	" & Trubshaw, James	I	4
Seymour, John	VI	65	" William	VIII	74
Shammon, William	VI	62	" Jun.	IV	30
Shand, Mason, & Co.	VI	53	" W., & Brothers	VI	56
Shanks, A., & Sons	VI	52	" George, & Co.	VI	65
"	IX	83	" Frederick, & Co.	V	40
Sharon Chemical Company	V	44	" Robert, & Son	IV	30
Sharpe, C. W.	I	5	" T., & H., & Co.	V	44
Sharp, Brown, & Co.	V	40	" Thomas, & Sons	IV	30
" Stewart, & Co.	VI	52	"	VIII	74
"	VI	54	" William Henry	II	9
Shaw & Fisher	IV	36	" & Turner	VI	65
"	III	21	Smithson, J., & Co.	IV	27
" J. F., & Co.	II	6	" Joseph, & Co.	IV	29
" & Spivey	IV	30	Smyth, & Co.	IV	34
Sheddon, H.	VI	66	" J., & Sons	VI	43
Sheen, Thomas	VI	48	"	VIII	74
"	VIII	74	Snape, W., & Co.	III	19
Shepherd, Hill, & Co.	VI	54	Snow, John, & Co.	II	6
Shiers, Richard, & Son	IV	31	Society for improving the Condi- tion of the Labouring Classes	X	93
Shipley, J. G.	VI	62	Society for the Encouragement of Arts	III	21
Shipman & Co.	V	40	"	IV	36
Siemens Brothers	VI	64	"	VI	65
" C. W.	VI	65	Society for Promoting Chris- tian Knowledge	II	6
"	VI	53	"	X	89
Silicated Carbon Filter Company	VI	50			
Silver, S. W., & Co.	IV	35			
"	IV	38			
"	X	91			
"	III	14			
Simons, W., & Co.	VI	66			
Simmonds, P. L. & E.	V	41			

	Group	Class		Group	Class
Society for Promoting Female Education in the East	x	91	Stockwell, J., & E.	IV	30
Somerville & Co.	II	7	Stone, Frank, A.R.A. (the late)	I	1
Solomon, Joseph	II	9	Stones, M. V.	VI	59
" "	III	24	Stothert & Pitt	VI	51
" " (Testing House)			" "	VI	52
" Rebecca	I	1	St. Pancras Iron Works Company	VIII	75
Sopwith, Thomas	V	40	Strachan & Co.	IV	30
Sorby, Thomas Charles	I	4	Strahan, Alexander	II	6
South Kensington Museum	II	6	" & Co.	VII	73
" " "	VI	65	Street, George E., A.R.A., F.S.A.	I	4
Southall & Heap	VI	57	Strickland, Henry	II	8
Southey, Emma	IV	33	Strode & Co.	III	24
Southwell, H., & M.	III	18	" (Testing House)		
Soutter, R., & R.	IV	28	Stuart, J. & W.	IV	33
Sowden & Stephenson	VI	56	" "	VI	49
Spackman, Sergt., R.E.	II	9	Sturgeon, J.	VI	54
Spalding Club	II	6	Sugg, William	III	24
Sparkes, John	II	8	" (Testing House)		
Spence, B.	I	1	Sullivan, John	III	24
Spencer, Thomas	VI	50	Sulman, Benjamin	II	8
" J., & Sons	VI	63	Summerscales, W., & Sons	VI	50
Spence's Patent Composite Com- pany	VI	52	Sunday School Union	x	89
Spiers, Richard Phénè	I	4	" "	II	6
" & Sons	III	14	Suttaby, R. & A.	II	6
Spottiswoode & Co.	II	6	Sutton, Edwin	II	9
Squire, Peter	V	44	" R.	III	21
Stabb, John	II	6	" "	IV	36
Staight Brothers	II	10	" " William, & Sons	V	40
" "	III	21	" & Sons	IX	84 & 85
" "	III	26	Swaine & Adeney	VI	62
" "	IV	36	" Joseph	I	5
Stanfield, A. W.	II	6	Swan, Henry	II	9
" Clarkson, R.A.	I	1	" Joseph Wilson	II	9
Stanford, Edward	II	6	Swann, J. R.	VI	53
" "	II	13	Swears & Wells	IV	34
" "	x	89	Sweetman, Catherine	IV	34
" "	II	6	Swindell & Co.	VI	48
Stange, Joseph	VII	72	" " " " " " " " " " " "	VIII	74
Stanley, Frederick T.	V	40	Sykes, " Godfrey (the late)	I	1
Starey, T. R.	VI	61	" " " " " " " " " " " "	I	2
" "	VI	62	" " " " " " " " " " " "	I	4
Statham, William Edward	II	12	" & Co.	IV	34
" "	x	89	" Edward T.	IV	30
St. Aubyn, James P.	I	4	Szerelmey & Co.	V	44
Steel & Garland	III	24	" N. C.	V	44
Steegman, Edward, & Co.	IV	33	Taglis P.	II	9
Stephens, Edward, A.R.A.	I	3	Tait & Co.	IV	35
" H. C.	II	7	Talbot, William Henry Fox	II	9
" Henry	V	44	" & Alder	V	44
" & Co.	IV	28	Tangye Brothers	VI	52
Stephenson, James	I	5	" " " " " " " " " " " "	VI	53
Stephenson, R., & Co.	VI	63	Tank, James	III	26
" Blake, & Co.	II	6	Tanned Leather Company	VI	52
Stevens, William	x	89	" " " " " " " " " " " "	VI	53
" & Sons	II	6	Tannett, Walker, & Co.	VI	54
Stevenson, Jacques, & Co.	V	40	Tapling, Beall, & Co.	III	18
Stewart, C. J.	II	6	Tarver, Edward	VI	65
Stickley, James	V	40	Tasker, W.	I	4
Stidder, J. G.	VI	63	" W., & Sons	VI	48
" "	VI	47	" " " " " " " " " " " "	VIII	74
Stidolph, G. F.	II	10	Taylor, Frederick	I	2
Stockdale, William	IV	30	" D. F., & Co.	V	40
Stocks, Lumb, A.R.A.	I	5	" Harry, & Co.	III	18
			" " " " " " " " " " " "	V	44

	Group	Class		Group	Class
Taylor, Harry, & Co.	X	91	Treloar, Thomas	III	18
Taylor, Francis	VI	48	Trestrail, Charles, & Co.	III	18
"	VIII	74	Tress & Co.	IV	35
" John	III	15	Trickett & Son	II	7
"	VI	50	Trinity House Corporation	VI	66
" J. E. Brothers	IV	30	"	III	24
" J., & Sons	VI	52	Trollope, G., & Sons	III	14
"	VI	66	Trubshaw, James	I	4
" John, & Sons	IV	30	Tucker, J. Scott	VI	66
" Brothers, & Co.	V	40	"	IV	37
" C. F., & Co.	IV	29	" Francis, & Co.	V	44
" William, & Co.	V	44	" Henry	V	46
" & Lodge	IV	30	Tuckey, John, & Co.	IV	28
" & Stokes	IV	31	Tudor, S., & W.	V	40
Teams Woodpulp Company	II	7	Tull, William, & Co.	III	18
Temple, J. A.	II	6	Tupper & Co.	V	40
Templeton, J. & J. S.	III	15	Turnbull Brothers	III	21
"	III	18	"	IV	36
" James, & Co.	III	18	Turner, E. R., & F.	VI	48
Tennant, John	I	1	"	VIII	74
Terrell, W., & Sons	VI	53	" H., & Co.	II	6
Terry & Shaw	IV	30	" William	II	8
" Stoneman, & Co.	II	6	" Charles	VI	47
Thacker, W., & Co.	II	6	" A.R.A. (the late)	I	5
Thackrah, Ellis, & Co.	IV	30	" & Son	V	44
Thames Iron Shipbuilding Company	VI	66	" Barrs, & Tookey	IV	31
Thomas, George Housman	I	1	Turnor, M., & Co.	II	7
" H.	II	10	Turton, Thomas, & Sons	V	40
" Richard Wheeler	II	9	"	VI	63
" W. J.	III	21	Tweedie, W.	II	6
" W. F., & Co.	VI	57	Twinberrow, J., & Co.	V	44
" William	VI	61	" & Son	II	11
" W. J.	IV	36	"	V	44
" W. L.	I	5	Twyman, John C.	II	9
Thompson, Charles Thurston	II	9	Tye, John	VI	50
" Jacob	I	1	Tyer, Edward	II	12
" John (the late)	I	5	Tyerman, Frederick	III	24
" Stephen	II	9	Tyler, John H.	VI	51
Thomson, George	VI	61	" Hayward & Co.	VI	52
" R. W.	VI	48	Underhill, W. S.	VI	48
"	VIII	74	"	VIII	74
"	VI	53	Underwood, John	II	7
"	VI	63	Unite, John	IV	38
" & Dodds	IV	30	United Association of Photography	II	9
Thorburn, Robert, A.R.A.	I	1	United Association of the Schoolmasters of Great Britain	X	89
Thorn, Charles	VI	61	Urquhart, Lindsay, & Co.	VI	56
" W., & F.	VI	61	Usher, Rufus	V	44
Thurston & Co.	III	14	Vacher, Charles	I	2
Thwaites & Carbutt	VI	54	Vale, —	II	6
Tidey, Henry	I	2	Van Voorst, John	II	6
Tidman & Son	V	44	Vane, Earl	V	40
Tilt, Frederick	I	2	Varley, C., & S. A.	VI	64
Tod, Capt. A. G.	II	9	Veitch, James, and Sons	IX	88
" James, & Son	VI	63	Verity, Thomas	I	4
Tolson, Haigh & Brooke	IV	30	Verrichio, Dionisio	III	15
" William	IV	27	Verschoyle, Lieut.-Col. Henry		
Tonks, William, & Sons	V	40	William	II	9
Topham, F. W.	I	2	Vickerman, B., & Sons	IV	30
Townley, Col.	III	21	" & Co.	V	40
"	IV	36	Vickers, William, Jun.	IV	33
Townroe, Reuben	I	3	Villy, P. J., & Co.	IV	31
"	I	4			
Townsend, George, & Co.	V	40			
" Thomas, & Son	IV	27			
Treadwin, Charlotte Elizabeth	IV	33			

	Group	Class		Group	Class
Vimeux, Eugene	II	10	Watherston & Son	IV	36
Vincent, John	VI	53	"	III	21
Vinter, J. A.	I	5	Waterhouse, Alfred	I	4
Virtue & Co.	II	6	Waters, J., & E., & Co.	IV	27
Vivier, Octave	III	23	"	IV	29
Vyse, Sons, & Co.	IV	35	"	IV	33
Wade, Adam	IV	30	Watkins, B. Colles, R.H.A.	I	1
" Joseph, & Co.	IV	30	" Thomas	VI	55
Wailles, W.	III	16	Watson, Thomas, H.	I	4
Waite, George	II	11	" Bontor, & Co.	III	18
Walker Alkali Company	V	44	" Rhodes, & Co.	IV	30
" Henry	IV	30	" John, & Sons	V	40
" " & Sons	IV	30	Watts, G. F., A.R.A.	I	1
" Frederick	I	2	Wavish, Brothers	III	24
" John	III	23	" " " (Testing House)		
" J., & Sons	IV	30	Wear " River Commissioners	VI	65
" Joseph, Parker, & Co.	V	40	Weare, & Co.	III	14
" T., & Son	VI	53	Webb, Edward	III	18
" W., & Son	II	6	" & Hunt	II	6
" W. H.	VI	66	" & Son	V	46
Wallis, George	II	6	Webster, Henry	II	7
" Henry	I	1	" Joseph, & Son	IV	30
" Haslam, & Steevens	VI	48	" Richard	III	23
" " "	VIII	74	" Thomas, R.A.	I	1
" T. W.	III	26	" & Horsfall	V	40
Walmsley, R., & Co.	V	42	Wedgwood, Josiah, & Sons	III	17
Walton, Frank	I	2	Wehnert, Edward Henry	I	2
" James T.	I	1	Weigall, Alfred	I	2
Wane, Marshall	II	9	" Henry	I	1
Wanklyn, William	IV	31	Weir, Harrison	I	2
Wanzer Sewing Machine Company	VI	57	Welch & Sons	IV	35
War, Secretary of State for	III	24	" E. J. C.	(Testing House)	
"	VI	62	Wells, Henry T., A.R.A.	III	24
"	VI	64	" "	I	1
"	VI	66A	" " C. T.	I	2
" " (Testing House)			" Charles Tennant	IX	33
Ward, Capt. J. R., R.N.	VI	66	"	II	7
" Edward M., R.A.	I	1	Wellsman, John	VII	67
" Henrietta	I	1	Welsh Slate Company	VI	65
" H.	III	14	Wenham Lake Ice Company	VI	50
" & Lock	II	6	Werner, Carl	I	2
" Henry	V	42	Wertheimer, Samson	III	14
" Marcus, & Co.	II	6	West, J. G., & Co.	VI	66
" "	II	7	West Cumberland Hematite		
" "	III	26	Iron Company	V	40
" John	III	14	West of England China Stone		
" J.	VI	61	and Clay Company	V	40
" & Hughes	III	16	West & Gregson	VI	53
Wardley, George	II	9	Westlake, Samuel	V	41
Waring, J. B.	I	4	Westmacott, J. S.	I	3
Warne, F., & Co.	II	6	Weston, T. A.	VI	53
" William, & Co.	IV	35	Wharry, James	VII	72
" W., & Co.	V	44	"	III	25
Warner, Son, & Co.	II	8	Wheatley, James	III	21
" William Harding	II	9	"	IV	36
Warren, Albert H.	I	2	Whettem, W. H.	VI	66
" Edmund G.	I	2	Whight & Mann	VI	57
" Henry	I	2	Whincup, Joseph	V	45
Warrick, Brothers	III	25	White & Brothers	VI	65
Warriner, George	VII	70	" & Co.	VI	65
"	III	24	" D. B., M.D.	VI	50
" " (Testing House)			" Edward	III	23
Washbourne, Robert	II	6	" Henry	II	9
Waterston, George, & Son	II	7	" Joseph	VI	52
			"	VI	53

	Group	Class		Group	Class
White, J. S.	VI	66	Winter & Son	II	9
„ Timothy	VI	66A	„ & Masters	V	46
„ William, F.S.A.	I	4	Wishart, Thomas	VI	66
Whitehead, John	VI	50	Wolff, E., & Son	II	7
Whiteley, Thomas Rowlandson	III	18	Wood, Thomas P. Jun.	V	44
Whiteway & Co.	V	40	Woodall, J., & Son	VI	61
Whitley, Joseph, & Co.	V	40	Woodbourne, J.	VI	48
Whitmee, J., & Co.	VI	50	„ „ „ „ „ „ „ „ „	VIII	74
Whitaker, Joseph	II	6	Woodbury, Walter Bentley	II	9
Whittaker, J. W.	I	2	Woods & Cocksedge	VI	48
„ & Co.	II	6	„ „ „ „ „ „ „ „ „	VIII	74
Whittingham, A.	II	6	Woodward & Grosvenor	III	18
Whitworth Company (Limited)	VI	52	„ Palmer, & Radford	III	18
„ „ „ „ „ „ „ „ „	VI	54	Woollams, John, & Co.	III	19
„ „ „ „ „ „ „ „ „	VI	66A	„ H. William & Co.	III	19
Whympier, J. W.	I	2	„ W. & Co.	III	15
Whytock, Richard, & Co.	III	14	Woollescroft, George	VI	65
Wigan Coal & Iron Co.	V	40	Woolloton & Son	VII	67
Wigram, Money, & Sons	VI	66	Woolley & Co.	II	6
Wilde, R. T.	X	89	Woolner, T.	I	3
Willey & Co.	III	18	Wormleighton, W.	III	26
Wiley, William Edward	III	21	Wornum, Robert, & Sons	II	10
„ „ „ „ „ „ „ „ „	IV	36	Worssam, Samuel, & Co.	VI	54
Wilkie & Soames	III	24	„ „ „ „ „ „ „ „ „	VI	58
„ „ „ „ „ „ „ „ „	V	44	Worth, Samuel Leake	V	40
Wilks, Edwin	IV	38	Wortley, Col. Stuart	II	9
Wilkinson, Heywoods, & Clark	V	44	Wray, G. O.	III	24
„ John, Son, & Co.	III	18	Wren & Hopkinson	VI	55
„ T., & Co.	IV	36	Wright, Bryce	X	89
„ „ „ „ „ „ „ „ „	III	21	„ Henry G., M.D.	II	11
Willett, Edward, Nephew, & Co.	IV	31	„ J. W.	VI	66
Williams, B.	II	6	„ „ Mansfield	III	14
„ & Norgate	II	6	„ W. J.	V	46
„ Thomas R.	II	9	„ & Simpkin	II	6
„ John, Nephew, & Co.	IV	30	„ —	II	6
„ Alfred	X	89	„ „ „ „ „ „ „ „ „	II	6
„ W.	II	6	Wyatt, Alfred	VI	61
Williamson, W.	VI	50	„ M. Digby, F.S.A.	I	4
„ Brothers	VI	53	„ Thomas Henry	I	4
Willis, H. Brittan	I	2	Wyburn & Co.	VI	61
„ H. R., & Co.	III	18	Wyon, E. W.	I	3
„ & Sotheran	II	6	„ J. S., & A. B.	II	8
Willoughby d' Eresby, Right Hon. Lord	VI	65	„ „ „ „ „ „ „ „ „	I	3
Willmore, James T., A.R.A. (the late)	I	5	Yardley & Co.	III	25
Wilson, Frederick J.	X	89	Yates & Co.	II	6
„ George Washington	II	9	Yeames, William Frederick, A.R.A.	I	1
„ James	VI	51	Young Brothers	III	42
„ James Leonard	II	7	„ „ „ „ „ „ „ „ „	(Testing House)	
„ John J., & William	IV	30	„ Henry	II	11
„ Joshua, Jun.	IV	30	„ James	V	44
„ Walker, & Co.	V	46	„ „ „ „ „ „ „ „ „	III	24
„ William & Co.	IV	35	„ Lambton	VI	66
Windle, J. D.	V	43	Ystalyfera Iron & Tin-Plate Company	V	40
Windover, C. S.	VI	61	Zaehnsdorf, Joseph	II	7
Winfield, R. W. & Co.	III	14	Zetland, the Earl of	III	21
„ „ „ „ „ „ „ „ „	III	24	„ „ „ „ „ „ „ „ „	IV	36
„ „ „ „ „ „ „ „ „	V	40	Zobel, Julius	V	
Wingate, T. & Co.	VI	65	Zossenheim Brothers	IV	30

S U M M A R Y

OF THE NUMBER OF

AWARDS TO BRITISH AND COLONIAL EXHIBITORS.

MEMBERS OF THE JURIES AND OTHER EXHIBITORS RETURNED AS HORS	
CONCOURS	45
GRANDS PRIX	13
GOLD MEDALS, AND FIRST PRIZES	116
SILVER MEDALS, AND SECOND PRIZES	407
BRONZE MEDALS, AND THIRD PRIZES	633
HONOURABLE MENTION	543
	<hr/> 1,757

The total amount of space occupied by the British Section was 374,656 superficial feet, being nearly a ninth part of the entire area of the Exhibition.

[It should be clearly understood that the British Executive are not responsible for any errors which may exist in this list.]

A W A R D S

TO

BRITISH AND COLONIAL EXHIBITORS.

GROUP I.

Fine Arts.

CLASSES I. & II.

Oil Colour and Water Colour Paintings
and Drawings.

FIRST PRIZE.

CALDERON, P. H., R.A.

THIRD PRIZES.

ORCHARDSON, W. Q.
WALKER, F.

CLASS III.

Sculpture.

THIRD PRIZE.

WYON, J. S. }
WYON, A. B. }

CLASS IV.

Architectural Designs and Models.

GRAND PRIX.

WATERHOUSE, A.

FIRST PRIZE.

FOWKE, CAPT. F., R.E. (the late)

SECOND PRIZE.

LYNN, W. H.

THIRD PRIZE.

BARRY, E. M., A.R.A.,

CLASS V.

Engraving and Lithography.

No award.

Not examined by the Jury.

GROUP II.

Apparatus and Applications of the
Liberal Arts.

CLASS VI.

Printing and Books.

HORS CONCOURS.

MASTER OF THE ROLLS, London—*Historical documents*

SCIENCE AND ART DEPARTMENT, London—*Publications in England in 1866.*

CLOWES & SONS, London (Mr. G. Clowes, member of the Jury)—*Books*

GOLD MEDAL.

BROOKS, V., London—*Chromo-lithographs*

SILVER MEDALS.

SPOTTISWOODE & Co., London—*Books*

CHAMBERS, W. & R., London—*Books*

BRADBURY, EVANS, & Co., London—*Books*

VIRTUE & Co., London—*Illustrations*

STEPHENSON, BLAKE, & Co., Sheffield and London—*Type*

CASELL, PETTER, & GALPIN, London—*Books*

HANHART, M. & N., London—*Chromo-lithographs*

MACKENZIE, WILLIAM, Glasgow—*Bible*

'ILLUSTRATED LONDON NEWS,' PROPRIETORS OF—*Copies of the journal*

ROWNEY, G., & Co., London—*Chromo-lithographs*

BRONZE MEDALS.

DICKES, WILLIAM, London—*Printing in colours*
DAY & SON (Limited), London—*Chromo-lithography*

MACLURE, MACDONALD, & MACGREGOR, London and Glasgow—*Chromo-lithography*

BRADBURY, WILKINSON, & Co., London—*Bank-notes and bonds*

FERRES, J., Melbourne—*Books and journals*

RICHARDS, Sydney—*Books*

BELBRIDGE, W. C., Government printer, Brisbane—*Books and journals*

Cox, Adelaide—*Books and journals*

DESBARATZ, J. E., Quebec—*Books*
 FIRTH, Bombay—*Prints*
 NELSON, T., & Sons, London and Edinburgh—*Books*
 BROUSSEAU BROTHERS, Quebec—*Books and journals*
 BUTLER & TANNER, Frome—*Specimens of printing*
 WALLIS, GEORGE, South Kensington Museum—*Auto-typography*
 MULL MATTHIAS, Bombay—*Books and journals*
 NANABHAI RASTHAMJI RANIMA, Bombay—*Native printing*
 BYRAMJEE FURDOONJEE, Bombay—*Books and journals in native language*

HONOURABLE MENTION.

BELLOWS, JOHN, Gloucester—*Printing*

CO-OPÉRATEURS.

BRONZE MEDAL.

DAY, W. J., overseer, Clowes & Sons', London

HONOURABLE MENTION.

STOTESBURY, JOHN, London, foreman, Clowes and Sons'
 PARSONS, JOHN, London, foreman, Clowes & Sons'
 DORRELL, E. R., London, compositor, Clowes & Sons'

CLASS VII.

Paper, Stationery ; Binding ; Painting and Drawing Materials.

HORS CONCOURS.

PORTAL, W. S. & R. (Mr. W. S. Portal, member of the Jury), Laverstoke—*Bank-note paper*

GOLD MEDALS.

COWAN, A., & Sons, London—*Paper*
 SAUNDERS, T. H., London—*Paper*

SILVER MEDALS.

GILLOTT, JOSEPH, & Sons, Birmingham—*Steel pens*
 CROMPTON, J. R., Bury—*Paper*
 WARD, MARCUS, & Co., Belfast—*Binding and account-books*
 ROWNY, G., & Co., London—*Colours for painting*
 WATERSTON, G., & Son, Edinburgh—*Sealing-wax*
 GOODALL, C., & Son, London—*Playing-cards and cardboard*
 LETTS, Son, & Co., London—*Bookbinding and account-books*
 MORDAN, F., London—*Gold pens and sealing wax*
 STEPHENS, H. C., London—*Writing inks*
 RIVIÈRE, R., London—*Bookbinding*
 BROCKEDON, W., & Co., London—*Black-lead for artists' pencils*
 HYDE & Co., London—*Writing inks*
 LEIGHTON, JOHN, London—*Bookbinding*

BRONZE MEDALS.

EYRE & SPOTTISWOODE, London—*Bound books* (Class 6)
 HUGHES & KIMBER, London—*Steel plates*
 NEWMAN, JAMES, London—*Colours for painting*
 REEVES & SONS, London—*Colours for painting*
 BELL & DALDY, London—*Bound books* (Class 6)
 WILEY, W. E., Birmingham—*Gold pens* (Class 21)
 WOLFF, E., & Son, London—*Pencils*
 BROCKEDON, W., & Co., London—*Black-lead*
 COHEN, BARNET S., London—*Pencils*
 ZAEHNSDORF, J., London—*Binding*
 DAY & SON (Limited), London—*Bound books* (Class 6)
 ALEXANDRA PRINTING INK Co.—*Printing inks*
 LYONS, WILLIAM, Manchester—*Writing inks*
 BAIN, A. W., London—*Binding*
 CAUSTON, JOSEPH, & Sons, London—*Account books*
 BLACKIE, J., & Son, London—*Bound books*
 BENLEY N. & Sons—*Binding*
 WELLS, C. TENNANT, London—*Blocks for wood engraving*
 REYNOLDS—*Blocks for wood engraving*
 LAMB, JOHN, Newcastle-on-Tyne—*Pottery tissue paper*
 RAMAGE, JOHN, & Co., London—*Bindings*
 MORLEY, W. W., Wooburn—*Millboard*
 LEFRANCE-LEMIEUX, Quebec—*Bookbinding*

HONOURABLE MENTION.

TEAMS WOOD PULP Co., Gateshead—*Paper made from wood*
 BETTRIDGE, J., & Co., Birmingham—*Binding*
 HINKS, WELLS & Co., Birmingham—*Steel pens*
 BROWN, WILLIAM, & Co., London—*Account-books*
 LOW, SON, & MARSTON, London—*Bound books* (Class 6)
 SMITH, ELDER, & Co., London—*Bound books* (Class 6)
 BROWN BROTHERS, Toronto—*Bindings*

CLASS VIII.

Applications of Drawing and Modelling to the Common Arts.

GOLD MEDAL.

COLE, HENRY, C.B., Director of the South Kensington Museum—*Illustrations and Collection of Models, Universal Catalogue of Books and Works of Art*

SILVER MEDALS.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, London—*Models and sculpture* (Class 65)
 WYON, J. S. & A. B., London—*Seal engraving and reductions*
 ROMILLY, LORD, Master of the Rolls, London—*Reproduction of manuscripts by photo-lithography* (Class 6)

BRONZE MEDALS.

SREERAM PAUL, India—*Models in white clay*
 WARD, MARCUS, & Co., Belfast—*Print colouring illuminations*
 NEWMAN, CHARLOTTE T., London—*Designs for lace*
 ORTNER & HOULE, London—*Die sinking and seal engraving*

MARTIN, THOMAS, Newton Abbott—*Seals engraved by machinery*
 ROOKE, GEORGE, South Kensington—*Mosaics* (Class 65)
 SPARKES, JOHN, Lambeth—*Designs and reliefs by students of the schools of art*

HONOURABLE MENTION.

SLATTER, ALBERT, St. Leonard's-on-Sea—*Wax flowers*
 MAHARAJAH OF TRAVANCORE, Madras—*Fruits in painted ivory*
 RHADARANAN MISTRY, Bengal—*Ivory carvings*
 JODOO PAUL, Kishnagur—*Models in clay*
 BAWOOL RAJOR, Bengal—*Ivory carving*
 PESTONJEE DROUTIA, Madras—*Models of fruit*
 JENNER & KNEWSTUB, London—*Die sinking*
 BOWAN DOST, Bengal—*Lucknow sculpture*
 GOPAL DOST, Bengal—*Oude sculpture*
 LORD ROMILLY, THE MASTER OF THE ROLLS, London—*Photozincographic reproductions of the Domesday Book, by Sir H. James, by consent of the Lords of the Treasury* (Class 6)
 MINTON & Co., Stoke-on-Trent—*Mosaics* (Class 17)
 HARLAND & FISHER, London—*Mosaics* (Class 2)

CO-OPÉRATEURS.

BRONZE MEDALS.

COLE, MISS, South Kensington Museum—*Mosaics* (Class 2)
 ALLDRIDGE, W. E., South Kensington Museum—*Mosaics* (Class 2)
 COOPER, S., Messrs. Minton's, Stoke-on-Trent—*Mosaics*

CLASS IX.

Photographs and Photographic Apparatus.

HORS CONCOURS.

DIAMOND, DR. HUGH W., Twickenham (member of the Jury)—*Calotypes*

SILVER MEDALS.

WOODBURY, W. BENTLEY, London—*New mode of producing photo-relievo pictures*
 BEDFORD, F., London—*Views from nature*
 ROBINSON, HENRY PEACH, London—*Photographic composition pictures*
 SWAN, JOSEPH WILSON, Newcastle-on-Tyne—*Improved carbon process*
 DALLMEYER, J. H., London—*Lense called triplet*
 MUDD, J., Manchester—*Photographic views*
 ENGLAND, WM., London—*Photographic views*
 THOMPSON, C. THURSTON, London—*Photographic views*

BRONZE MEDALS.

ROSS, THOMAS, London—*Photographic lenses*
 CHERRILL, NELSON K., Lee, London—*Carbon prints*
 WORTLEY, COL. STUART, London—*Landscapes*
 BLANCHARD, V., London—*Portraits*
 HEATH, VERNON, London—*Landscapes*
 BRIGGS, COL., Leamington—*Indian views*
 GRIGGS, W., India Museum—*Indian views*
 SHEPHERD & BOURNE, Simla—*Indian views*
 TOD, CAPTAIN A. G., Cheltenham—*Photographs*
 MAYALL, J. E., London—*Large portraits*
 JOUBERT, F., London—*Enamelled photographs*

MACFARLANE, London—*Landscapes*
 MEAGHER, PATRICK, London—*Cabinet work for apparatus*
 WHITE, HENRY, London—*Photographs*
 NOTMAN, W., Montreal—*Portraits*
 CALDESI, London—*Photographic medallions*

HONOURABLE MENTION.

VERSCHOYLE, LIEUT.-COLONEL H. W., London—*Photographs*
 DEPARTMENT OF PUBLIC WORKS, Canada—*Photographs*
 BROWNRIFF, THOMAS M., Dublin—*Landscape*
 POUNCY J., Dorchester—*Prints in carbon*
 CAMERON, MRS., Isle of Wight—*Photographs*
 BEASLEY, FRED., JUN., London—*Photographs*
 THOMPSON, STEPHEN, London—*Photographs*
 WILSON, G. W., Aberdeen—*Stereoscopic views*
 SWAN, HENRY, London—*New stereoscope*
 BEAU, ADOLPHE, London—*Portraits*
 HEMPHILL, W. D., M.D., Clonmel—*Views*
 COGHILL, SIR J. J., BART., Glen Barraghane, Skibbereen—*Views*
 SOLOMON, JOSEPH, London—*Magnesium lamp*
 CRUTTENDEN, Maidstone—*Photographs*
 WARDLEY, GEORGE, Manchester—*Views*
 ROSS, JAS., Edinburgh—*Photographs*
 AUSTEN, WILLIAM, London—*Apparatus*
 ROUCH, W. W., London—*Chemicals and apparatus*
 THOMAS, RICHARD WHEELER, London—*Chemicals and tent*
 LEGGO & DESBARATZ, Quebec—*Photographs*
 HENDERSON, Montreal—*Photographs*
 ROYAL ENGINEERS—*Photographs*
 PANTASCOPIIC COMPANY, London—*Pantascopes*
 HOSMER, ARCHIBALD WM., Cheltenham—*Photographs*
 CRAMB BROS., Glasgow—*Photographs*

CLASS X.

Musical Instruments.

GOLD MEDAL.

BROADWOOD, JOHN, & SONS, London—*Pianos*

SILVER MEDALS.

KIRKMAN, JOSEPH, & SON, London—*Pianos*
 BEVINGTON & SONS, London—*Organs*
 DISTIN, H., & Co., London—*Wind instruments*
 BESSON, F., London and Paris—*Wind instruments*

BRONZE MEDALS.

BRINSMEAD, JOHN, London—*Pianos*
 ALLISON, RALPH, & SONS, London—*Pianos*
 WORNUM, ROBERT, & SONS, London—*Pianos*
 BRYCESON BROS. & Co., London—*Organs*
 DAWES, W.—*Melody attachment to harmoniums*

HONOURABLE MENTION.

KELLY, CHARLES, London—*Harmoniums*
 LACHENAL, ELIZABETH, London—*Concertinas*

CLASS XI.

Medical and Surgical Instruments and Apparatus.

HORS CONCOURS.

SECRETARY OF STATE FOR WAR—*Ambulances and fittings*

GOLD MEDAL.

ASH, CLAUDIUS, & SONS, London—*Artificial teeth*

SILVER MEDALS.

MASTERS, MOSES, London—*Artificial limbs*
EVANS & STEVENS, London—*Surgical instruments (War Department)*
SAVORY & MOORE, London—*Ambulance surgical case*

BRONZE MEDALS.

LEMÂLE, T., & Co., London—*Artificial teeth*
REIN, F. C. & SON, London—*Acoustic apparatus*
ROTH, DR. M., London—*Gymnastic models*
LONGDON, T., & Co., Derby—*Elastic belts*

HONOURABLE MENTION.

MARSDEN, W. J., & Co., Sheffield—*Respirators and sunshades*
TWINBERROW & SON, London—*Syringes*
WRIGHT, DR. HENRY G., London—*Surgical instruments*

BACON, GEORGE WASHINGTON, London—*Gymnastic apparatus*
DIXON, THOS., London—*Miss Nightingale's swing bed*

CAITHNESS, EARL OF, London—*Artificial leg*
NORMAN, S., JUN., London—*Artificial foot*
SALT, THOMAS PARTRIDGE, Birmingham—*Hernia bandages*

CONDY, H. B., London—*Apparatus to measure the variations of the atmosphere*
REDFORD, G., London—*Ambulance fittings*
LA RICHELLE, Canada—*Splints*
SPENCE, W., India—*Surgical instruments*

CLASS XII.

Mathematical Instruments and Apparatus for Teaching Science.

GOLD MEDALS.

DALLMEYER, J. H., London—*Astronomical instruments and microscopes*
ROSS, THOMAS, London—*Philosophical instruments and microscopes*
BECK, R. & J., London—*Philosophical instruments and microscopes*
CHANCE BROTHERS, & Co., Birmingham—*Optical glasses (Class 16)*

SILVER MEDALS.

ELLIOTT BROTHERS, London—*Mathematical instruments*

LADD, WM., London—*Magneto-electric machine*
TORONTO CHAMBER OF ARTS and MANUFACTURES—*Collections of natural history*

BRONZE MEDALS.

STATHAM, WM. EDWARD, London—*Cheap apparatus for teaching physics and chemistry*
COLE, ARTHUR CHARLES, Liverpool—*Microscopic objects*

HONOURABLE MENTION.

CRONMIRE, J. M. & H., London—*Compasses*
BETHUNE, REV. C. G. S., Cobourg, Canada—*Collection of insects*
SMITH, EDWARD, M.D., London—*Spirometer*
DUNLOP, R., Cwm Avon—*Calculating machine*
CRISP, EDWARD, M.D., London—*Anatomical preparations (Class 11)*

CO-OPERATEUR.

SILVER MEDAL.

BECKER, CARL, London, Elliott Brothers—*Skill and success in superintending construction of instruments*

CLASS XIII.

Maps and Geographical and Cosmographical Apparatus.

HORS CONCOURS.

ORDNANCE SURVEY OF GREAT BRITAIN, Southampton—*Topographical maps of the United Kingdom and dependencies*

HYDROGRAPHIC DEPARTMENT OF THE ADMIRALTY—*Charts, atlas, and sailing directions*
GEOLOGICAL SURVEY OF GREAT BRITAIN—*Geological maps of Great Britain and dependencies*

SILVER MEDALS.

CANADA, GEOLOGICAL COMMISSION OF—*Geological maps of Canada*

STANFORD, EDWARD, London—*Geographical maps*

SELWYN, ALFRED—*Geological maps of the mines of Victoria*

BRONZE MEDALS.

QUEENSLAND SURVEYOR-GENERAL'S OFFICE—*First atlas of maps of the colony*

OWEN, Queensland—*Map of the squatting runs or grazing lands of the colony*

BOUCHETTE, J., Canada—*Geographical and geological map of British America*

MARTIN, R., Montgomery—*Chart in relief of the Indian peninsula*

SUTHERLAND, C., Natal—*General map of the colony*

DARDENNE, A., Mauritius—*Chromo-lithographic map of the island of Mauritius*

McKINLAY, A., & Co., Nova Scotia—*Geographical apparatus*

HONOURABLE MENTION.

NELSON, T. & SONS, London—*Geographical (wall) maps*

BOUSQUET, E. H., Mauritius—*Map of cyclones*

GROUP III.

Furniture and other Objects for the Use of Dwellings.

CLASSES XIV. & XV.

Fancy Furniture, Upholstery, and Decorative Work.

HORS CONCOURS.

SOUTH KENSINGTON MUSEUM—*Models, bronzes, mosaics (Classes 6 & 65)*

JACKSON & GRAHAM (Mr. Graham, member of the Jury), London—*Carpets and cabinet furniture*

MR. JOHN GREGORY CRACE (member of the Jury), London—*Decorations and cabinet work*

GOLD MEDAL.

WRIGHT & MANSFIELD, London—*Furniture*

SILVER MEDALS.

TROLLOPE, GEORGE, & SONS, London—*Cabinet furniture*GILLOW & Co., London—*Furniture*HOLLAND & SONS, London—*Furniture*DYER & WATTS, London—*Furniture*

BRONZE MEDALS.

JACKSON, G. & SONS, London—*Mouldings*WEDGWOOD, JOSIAH, & SONS, Stoke-upon-Trent—*Chimney-pieces* (Class 17)LAMB, JAMES, Manchester—*Furniture*CLAYTON & BELL, London—*Mosaics* (cartoon)HUNTER, W. & J. R., London—*Furniture*WYATT, J. H., London—*Decoration* (Class 4)COLLMANN, LEONARD WM., London—*Furniture*INGLEDEW, CHARLES, London—*Chairs*HEAL & SON, London—*Furniture*BHOWANIS HANKER HARIVALUBH, Bombay—*Furniture*SREERAM PAUL, India—*Furniture*BETTRIDGE, JOHN, & Co., Birmingham—*Papier-mâché*WERTHEIMER, SAMSON, London—*Furniture*MACDONALD, FIELD, & Co., Aberdeen—*Marble decoration*ROWLEY, CHARLES, Manchester—*Picture frames*TAYLOR, JOHN, London—*Decoration*COLE, H. C.B., South Kensington Museum, London—*Radiating frames for economising space in exhibiting drawings, medals, &c.*PEYTON & PEYTON, Birmingham—*Metal bedsteads*WHYTOCK, RICHARD, & Co., Edinburgh—*Furniture*

HONOURABLE MENTION.

FILMER, THOMAS HENRY, & SON, London—*Furniture and tables*ALDERMAN, JOHN, London—*Invalid chairs*SKIDMORE'S ART MANUFACTURES & CONSTRUCTION IRON CO., Coventry—*Decorative iron work* (Classes 21, 22, 40, and 65)WARD, JOHN, London—*Invalid chairs*CARINGTON, LADY, London—*Embroidered bed furniture*BENHAM & SONS, London—*Decorative metal work* (Class 40)HAYWARD, CHARLES FORSTER, London—*Carved cabinet*COX & Co., London—*Ecclesiastical furniture*NOWROJEE SHAPOORJEE, MESSRS., & Co., Bombay—*Furniture*DESCHAMPS, J., Madras—*Furniture*ERKLEBEN, J., Cape Town—*Furniture*MOULTON, R., Cape of Good Hope—*Furniture*CANADIAN GOVERNMENT—*Furniture*

CO-OPÉRATEURS.

GOLD MEDAL.

JONES, OWEN, London, decorative architect

BRONZE MEDALS.

LORMIER, ALFRED, designer, Messrs. Jackson and Graham's

AXFORD, JOSIAH WILLIAM, foreman of cabinet-makers, Mr. Crace's

WRIGHT, GEORGE, Messrs. Hollands'

HONOURABLE MENTION.

CROSS, CHARLES, London, designer, Messrs. Wright & Mansfield's

HACLIN, AUGUSTE, London, artist, Mr. Crace's

WOODWARD, JOSEPH BROWN, superintendent of works, Messrs. Wright & Mansfield's

ROGERS, MARK, London, carver, Messrs. Trollope & Son's

BARNET, JOHN, London, foreman, Messrs. Jackson & Graham's

JEFFERSON, ROBERT, London, foreman, Messrs. Gillow & Co.'s

MARCHAND, C., London, foreman, Messrs. Jackson & Graham's

CLASS XVI.

Crystal, Fancy Glass, and Stained Glass.

HORS CONCOURS.

CHANCE BROTHERS & Co. (Mr. H. Chance, member of the Jury), Birmingham—*Glass*

SILVER MEDALS.

POWELL, JAMES, & SONS, London—*Crystal*HARDMAN & Co., Birmingham—*Stained glass*DOBSON, J., London—*Crystal*

BRONZE MEDALS.

PELLATT & Co., London—*Crystal*WARD & HUGHES, London—*Stained glass*HEATON, BUTLER, & BAYNE, London—*Stained glass*GREEN, JAS., London—*Crystal*AIRE & CALDER BOTTLE CO., London—*Bottles*EDMUNDSON & SONS, Manchester—*Stained glass*

HONOURABLE MENTION.

GREENE, HENRY, London—*Crystal*MILLAR, JOHN, & Co., Edinburgh—*Crystal*PHILLIPS, W. P. & G., & PEARCE, London—*Crystal*GARDNER, H. & J., London—*Crystal*LAVERS & BARRAUD, London—*Stained glass*COTTIER, D., Glasgow—*Stained glass*COX & SON, London—*Stained glass*NEWMAN, P. H., London—*Stained glass*DURY, T., Warwick—*Stained glass*GLASS COMPANY, Hudson, Canada—*Bottles*SPENCE, J. C., Montreal—*Stained glass*

CO-OPÉRATEURS.

HONOURABLE MENTION.

HALLÉ, CHARLES, at Messrs. Chance's, Birmingham

PEARSALL, RICHARD, at Messrs. Chance's, Birmingham

CLASS XVII.

Porcelain, Earthenware, and other
Fancy Pottery.

GOLD MEDALS.

MINTON & Co., Stoke-upon-Trent—*Porcelain
and earthenware*COPELAND, W. T., & Sons, Stoke-upon-Trent—
Porcelain and earthenware

SILVER MEDALS.

WEDGWOOD, JOSIAH, & Sons, Stoke-upon-Trent
—*Porcelain*DOULTON & WATTS, London—*Stoneware*BROWNFIELD, W., Cobridge—*Stoneware*

BRONZE MEDALS.

PINDER, BOURNE, & Co., Burslem—*Earthen-
ware*JONES, GEORGE, Stoke-upon-Trent—*Earthen-
ware, granite, and majolica*GRAY, GEORGE, London—*Paintings on porcelain
(Class 2)*PRICE, JOS. & CHARLES, & BROTHERS, Bristol
—*Stoneware*PRIMAVERI, F., & Sons, Cardiff and Swansea—
Earthenware

HONOURABLE MENTION.

ADAMS, JOHN, & Co., Hanley—*Jasperware,
majolica*ALLEN, G. T., Watcombe—*Terra cotta articles*
BISHOP'S WALTHAM CLAY COMPANY (Limited)
—*Pottery and ornamental bricks*

CO-OPÉRATEURS.

SILVER MEDALS.

ARNOUX, LÉON, superintendent and chemist,
Messrs. Minton & Co.'s, Stoke-upon-TrentGREEN, HARRY, designer, Messrs. Minton &
Co.'s, Stoke-upon-TrentEYRE, GEORGE, designer, Messrs. Copeland &
Sons'LESSORE, EMILE, artist, Messrs. Wedgwood &
Sons'

BRONZE MEDALS.

WRIGHT, ARTHUR, superintendent and chemist,
Messrs. Minton & Co.'s

ALLEN, THOMAS, artist, Messrs. Minton & Co.'s

MITCHELL, H., artist, Messrs. Minton & Co.'s

HEUK, CHRISTIAN, artist, Messrs. Minton & Co.'s

SIMPSON, THOMAS ALFRED, artist, Messrs. Min-
ton & Co.'s

MART, FREDERIC, gilder, Messrs. Minton & Co.'s

HÜRTIN, CHARLES F., designer and painter,
Messrs. Copeland & Sons'

BALLE, N., gilder, Messrs. Copeland & Sons'

LUCAS, DANIEL, landscape painter, Messrs.
Copeland & Sons'ADAMS, W., principal of the jasperware de-
partment, Messrs. Wedgwood & Co.'sADAMS, JAMES, principal of the manufactory of
jasper clays, Messrs. Wedgwood & Co.'sHALL, W., director of works for majolica ware,
Messrs. Wedgwood & Co.'sEVANS, JOSEPH B., designer, Mr. Brownfield's
SMITH, JAMES, designer, Mr. Brownfield's
MOLLART, GEORGE, modeller

CLASS XVIII.

Carpets, Tapestry, and other Stuffs for
Furniture.

GOLD MEDALS.

BRITISH INDIA—*Carpets*TEMPLETON, JAMES, & Co., Glasgow and Lon-
don—*Carpets*BRINTON & LEWIS, Kidderminster—*Carpets*

SILVER MEDALS.

AKROYD, JAMES, & SON, Halifax—*Damasks
(Class 29)*PATENT WOOLLEN CLOTH COMPANY, Leeds—
*Carpets*WILKINSON, JOHN, SON, & Co., Leeds—*Felt
carpets*THE LEATHER CLOTH COMPANY, London—
*Leather cloth*WILLIS, H. R., & Co., Kidderminster—*Hearth-
rugs*LAPWORTH BROS., London—*Carpets*MORTON & SONS, Kidderminster—*Carpets*HENDERSON & Co., Durham—*Royal Wilton
carpet*NAIRN, MICHAEL, & Co., Kirkcaldy—*Floor-
cloth*

BRONZE MEDALS.

WOODWARD, PALMER, & RADFORD, Kidder-
minster—*Carpets*TEMPLETON, J. & J. S., Glasgow—*Reps and
carpets*TRELOAR, THOMAS, London—*Carpets*HUMPHRIES, JAMES, & SONS, Kidderminster and
London—*Carpets*FIRTH, EDWIN, & SONS, Heckmondwike—*Car-
pets (Class 30)*BRITANNIA RUBBER AND KAMPTULICON Com-
pany, London—*Cork and india-rubber floor-
cloth*SOUTHWELL, H. & M., Bridgnorth—*Carpets*WOODWARD & GROSVENOR, Kidderminster—
*Carpets*TAYLER, HARRY, & Co., London—*Kamptulicon
floor-cloth*DEED, JOHN S., & SONS, London—*Sheepskin rugs*KOHNSTAMM, HERRMANN, London—*American
leather cloth*

HONOURABLE MENTION.

BAZIN, MISS, Canada—*Table cover*COW, HILL, P. B., & Co., London—*India-rubber
floor-cloth*HOFF & SONS, Louth—*Carpets*WHITELEY, T. R., Wakefield—*Cocoa-nut matting*TRELOAR, THOS., London—*Kamptulicon floor-
cloth*TULL, W., & Co., London—*Kamptulicon floor-
cloth*WILDEY & Co., London—*Cocoa-nut matting*WHINCUP, JOSEPH, London—*Table cover (Class
45)*

CLASS XIX.

Paper-hangings.

GOLD MEDAL.

POTTER, C. & J. G., Over Darwen—*Inventors of the steam machine for the manufacture of paper-hangings*

SILVER MEDAL.

SCOTT, CUTHBERTSON, & Co., London—*New processes for the manufacture of paper-hangings in relief*

BRONZE MEDALS.

WOOLLAMS, H. W., & Co., London—*Paper-hangings*

JEFFREY & Co., London—*Paper-hangings*

COOKE, W., Leeds—*Paper-hangings manufactured by machinery*

MARSDEN, CHARLES, London—*Paper-hangings in imitation of marble and stucco*

WOOLLAMS, JOHN, & Co., London—*Paper-hangings*

HONOURABLE MENTION.

HORNE, ROBERT, London—*Decorative paper-hangings*

CLASS XX.

Cutlery.

GOLD MEDAL.

BROOKES AND CROOKES, Sheffield—*Table knives, pocket knives, razors and scissors*

SILVER MEDAL.

MORTON, GEORGE & JOSEPH, London—*Cutlery*

BRONZE MEDALS.

MAPPIN, WEBB, & Co., Sheffield—*Cutlery*

MACDANIEL, CHARLES, & Co., London—*Table knives*

CLASS XXI.

Gold and Silver Plate, &c.

GOLD MEDALS.

ELKINGTON & Co., London—*Plate*

HUNT & ROSKELL, London—*Plate*

HANCOCK, C. F., SON, & Co., London—*Plate*

SILVER MEDALS.

EMANUEL, HARRY, London—*Plate*

BRONZE MEDALS.

MAPPIN, WEBB, & Co., London—*Plate*

WATHERSTON & SON, London—*Silver plate*

SHAW & FISHER, Sheffield—*Electro-plate*

HONOURABLE MENTION.

HARDMAN & Co., Birmingham—*Ecclesiastical metal plate-work*

DONNE, WILLIAM, & SONS, London—*Plate*

CO-OPÉRATEURS.

GOLD MEDAL.

MOREL-LADEUIL, chaser, Messrs. Elkington's

SILVER MEDALS.

ARMSTED, HENRY HUGH, chaser, Messrs. Hunt and Roskell's

WILLMS, AUGUSTE, carver, Messrs. Elkington's

MONTI, RAFFAELE, carver, Messrs. Hancock & Co.'s

BRONZE MEDALS.

RYLAND, WILLIAM, chief metal worker, Messrs. Elkington's

PAIRPOINT, THOMAS J., carver, Mr. Emanuel's

HONOURABLE MENTION.

BARRETT, ARCHIBALD J., carver, Messrs. Hunt & Roskell's

CARTER, GEORGE ARMSON, carver, Messrs. Hunt & Roskell's

CLASS XXII.

Bronzes and other Art Castings and Repoussé Work.

No award.

CLASS XXIII.

Clocks and Watches.

HORS CONCOURS.

FRODSHAM, MR. CHARLES, London (Vice-President of the Jury)—*Compensation pendulums, chronometers, &c.*

GOLD MEDALS.

POOLE, JOHN, London—*Watches, chronometers*
KULLBERG, VICTOR, London—*Watches, chronometers*

PARKINSON & FRODSHAM, London—*Watches, chronometers*

SILVER MEDALS.

BLACKIE, GEORGE, London—*Chronometers*

DENT, M. F., & Co., London—*Chronometers, watches, and clocks*

MERCER, THOMAS, London—*Chronometers*

ADAMS, F. B., & SONS, London—*Watches*

NICOLE & CAPT, London—*Keyless watches and chronograph*

BRONZE MEDALS.

SEWILL, JOHN, Liverpool—*Chronometers and watches*

JOHANNSEN, H. C., London—*Chronometers*

WHITE, EDWARD, London—*Chronometers, watches, and clocks*

WALKER, JOHN, London—*Chronometers, watches, and clocks*

BENSON, J. W., London—*Watches and clocks*

CLAXTON, ROBERT, London—*Chronometer jewelry*

HOLDSWORTH, SAMUEL, London—*Watch and chronometer jewels*

VIVIER, OCTAVE, London—*Chronometers, chronographs*

HONOURABLE MENTION.

WEBSTER, RICHARD, London—*Chronometers, watches, clocks*

HOWELL, JAMES, & Co., London—*Clocks, &c.*

CO-OPÉRATEUR.

SILVER MEDAL.

WATKINS, R., at Mr. Frodsham's, London

CLASS XXIV.

Apparatus and Processes for Heating and Lighting.

HORS CONCOURS.

SECRETARY OF STATE for WAR—*Stoves and ventilating apparatus*

ADMIRALTY, London—*Naval kitchens*

GOLD MEDAL.

WINFIELD, R. W., & Co., Birmingham—*Gas apparatus*

SILVER MEDALS.

BENHAM & SONS, London—*Heating & lighting*
BOWSER, W., & SONS, Glasgow and London—*Heating apparatus*

BRONZE MEDALS.

BROWN & GREEN, Luton—*Heating apparatus*
PHILLIP, CHARLES JAMES, Birmingham—*Gas lamps*

SOLOMON, JOSEPH, London—*Lamps for burning magnesium*

MUSGRAVE BROS., Belfast—*Heating apparatus*
LONDON WARMING AND VENTILATING COMPANY (Limited), Woodcock, W., Secretary, London—*Heating apparatus*

ADAMS, W. S., & SON, London—*Kitchen fittings*
LEONI, SIGISMUND, London—*Burners in silicate of magnesium (Class 53)*

HONOURABLE MENTION.

LEAMINGTON KITCHEN RANGE Co., Leamington Spa—*Heating apparatus*

BEST & HOBSON, Birmingham—*Gas apparatus*

McSHERRY, M., Limerick—*Heating apparatus*

STEEL & GARLAND, Sheffield—*Heating apparatus*

RADCLYFFE & Co., Leamington—*Heating apparatus*

STRODE & Co., London—*Gas-lighting apparatus*

FORREST, Messrs., London—*Gas-lighting apparatus*

BARTON, WM., Boston—*Heating apparatus*

SULLIVAN, JOHN, Jersey—*Patent lamps*

YOUNG, BROTHERS, London—*Patent lamps*

GLOVER, G., & Co., London—*Gas apparatus*

HUXHAMS & BROWN, Exeter—*Heating apparatus (Class 66)*

FREEMAN, THOMAS, London—*Illuminations in gas*

DEFRIES, J., & SONS, London—*Illuminations in gas*

CLASS XXV.

Perfumery.

SILVER MEDAL.

ATKINSON, J. & E., London—*Perfumery*

BRONZE MEDALS.

RIMMEL, EUGENE, London—*Perfumery*

CLEAVER, F. S., & SONS, London—*Perfumery*

PEARS, A. & F., London—*Perfumery*

PIESSE & LUBIN, London—*Perfumery*

PERKS, SAMUEL, Hitchin—*Perfumery*

HONOURABLE MENTION.

PRICE, NAPOLEON, & Co., London—*Perfumery*

REMINGTON, ARTHUR, Jersey—*Perfumery*

RANSOM, WM., Hitchin—*Perfumery*

CLASS XXVI.

Leather Work, Fancy Articles, and Basket Work.

SILVER MEDALS.

LEUCHARS, WM., London—*Dressing cases*

SCHÄFER, P. & F., London—*Bags and dressing cases*

BRONZE MEDAL.

JENNER & KNEWSTUB, London—*Dressing cases and morocco leather work*

GOGGIN, J., Dublin—*Fancy articles in petrified Irish oak*

WARD, MARCUS, & Co., Belfast—*Note books in morocco*

MAURITIUS—*Basket work made from the fibre of the coco de mer*

BETJEMANN, GEORGE, & SONS, London—*Dressing cases and desks*

HONOURABLE MENTION.

BHOWANIS HANKER HARI-
VULUBH
COWASJEE MUNCHERJEE
FRAMJEE HEERJEEHBOY
JAMSETJEE HEERJEEHBOY,
Bombay

Papier-mâché and carved sandal-wood and inlaid boxes, ivory inlaid with mosaic

HOWELL, JAMES, & Co., London—*Dressing cases*

FENTUM, MARTIN, London—*Toys*

GROUP IV.

Clothing (including Fabrics) and other Objects worn on the Person.

CLASS XXVII.

Cotton Thread and Fabrics.

GOLD MEDALS.

COLLECTIVE EXHIBITION OF SCOTLAND AND ENGLAND—*Sewing thread*

ARMITAGE, E., & SONS, Manchester—*Cotton fabrics*

BAZLEY, HENRY, & Co., Ancoats—*Thread*

RADCLIFFE, S., & SONS, Oldham—*Sheetings*
 HORROCKSES, MILLER, & Co., Preston and London—*Twilled fabrics*

SILVER MEDALS.

BARLOW & JONES, Manchester—*Counterpanes*
 KESSELMAYER & MELLOWDEW, Manchester—*Cotton velvets*
 CREWDSON & WORTHINGTON, Manchester—*White calicoes*
 HAWKINS, J., & SONS, Preston—*Shirtings*
 LANGWORTHY, BROS. & Co., Manchester—*Cords and velveteens*

BRONZE MEDALS.

CHRISTY, W. M., & SONS, Manchester—*Quilts and counterpanes*
 HALL & UDALL, Manchester and Oldham—*Velvets*
 FAULKNER, H., & Co., London—*Cotton twine*
 TOLSON, WM., Fazeley—*Webbing and yarns*
 JOHNSON, JABEZ, & FILDES, Manchester—*Quiltings*
 GLOVER, W. H., & Co., Manchester—*Towelling*

HONOURABLE MENTION.

MARTIN & JOHNSON, Bolton—*Various fabrics*

CLASS XXVIII.

Thread and Fabrics of Flax, Hemp, &c.

GOLD MEDALS.

BELFAST CHAMBER OF COMMERCE—*Thread and linen*
 CHARLEY, J. & W., & Co., Belfast—*Linen fabrics*
 FENTON, SON, & Co., & } Belfast—*Linen and*
 FENTON, S. G., & Co. } *linen yarns*
 BROWN, J. S., Belfast—*Union fabrics and damask*

SILVER MEDAL.

MATIER, HENRY, & Co., Belfast—*Union fabrics, damask*

BRONZE MEDAL.

GLASGOW JUTE Co. (Limited), Glasgow—*Jute yarns and fabrics*

HONOURABLE MENTION.

AINSWORTH, T., Whitehaven—*Sewing thread*
 PEGLER, CHARLES, & Co., Leeds—*Linen damask*
 BOUCHARD, MRS., Canada—*Handkerchiefs*
 MACCURDY, MISS, NOVA SCOTIA—*Linen thread*

CLASS XXIX.

Combed Wool and Worsted Fabrics.

HORS CONCOURS.

CLABBURN, SONS, & CRISP (Mr. W. H. Clabburn, member of the Jury)—*Textile fabrics* (Class 31)

GOLD MEDALS.

BRADFORD CHAMBER OF COMMERCE—*General collection*
 AKROYD, JAMES, & SONS, Halifax—*Textile fabrics (worsted, and cotton and worsted)*

SILVER MEDALS.

WILLETT, EDWARD, NEPHEW, & Co., Norwich—*Textile fabrics* (Class 31)

MIDDLETON, ANSWORTH, & Co., London—*Textile fabrics*

MITCHELL & SHEPHERD, Bradford—*Textile fabrics*

BRONZE MEDALS.

TAYLOR, J. E., BROTHERS, Almondbury—*Textile fabrics*

SMITHSON, JOSEPH, & Co., Halifax and Bradford—*Textile fabrics*

CLASS XXX.

Carded Wool and Woollen Fabrics.

HORS CONCOURS.

WAY, MR. H. S. (member of the Jury)—*Cloths*

GOLD MEDALS.

SOUTH OF SCOTLAND CLOTH MANUFACTURE, viz. DUMFRIES, GALASHIELS, HAWICK, INVERLEITHEN, LANGHOLM, AND SELKIRK—*Cloths*
 WEST OF ENGLAND MANUFACTURERS FOR THE TOWNS OF GLOUCESTERSHIRE AND WILTSHIRE—*Cloths*

SILVER MEDALS.

MARLING & Co., Stroud—*Cloths*
 MARLING, LEONARD, & Co., Stonehouse—*Cloths*
 BLISS, WM., & SON, Chipping Norton and London—*Cloths*

LAVERTON, ABRAHAM, Westbury—*Cloths*
 SALTER, SAMUEL, & Co., Trowbridge—*Cloths*
 GEISSLER, H., Kirkburton—*Cloths*
 STRACHAN & Co., Stroud—*Cloths*
 CLAY, J. TRAVIS, Rastrick—*Cloths*
 HOUSTON, HENRY, & SON, Frome—*Cloths*
 LAWTON, G. (Executors of), Micklehurst—*Cloths*

BROWN, J. & H., & Co., Selkirk—*Cloths*
 DAVIES, ROBERT S., & SONS, Stonehouse—*Cloths*
 BATLEY CHAMBER OF COMMERCE—*Cloths*
 NAISCH—*Felts*
 TAYLOR, J. E., BROTHERS, Almondbury—*Cloths*
 ROBERTS, JOWLINGS, & Co., Stroud—*Cloths*

BRONZE MEDALS.

CARR, ISAAC, & Co., Twerton Mills—*Cloths*
 MAHONY, MARTIN & BROTHERS, Cork—*Cloths*
 STOCKDALE, WILLIAM, High Burton—*Cloths*
 THACKRAH, ELLIS, & Co., Dewsbury—*Cloths*
 TAYLOR, JOHN, & SONS, Huddersfield—*Cloths*
 HOWGATE, JAMES, & SONS, Dewsbury—*Cloths*
 CHAMBER OF AGRICULTURE OF LOWER CANADA, FOR THE PRODUCTION OF NOVELTIES IN WOOLLEN COVERINGS—*Cloths and woollen stuffs*
 SANDERSON, R. & A., & Co., Galashiels—*Cloths*
 DAY, WATKINSON, & Co., Huddersfield—*Cloths*
 BARNICOT & KENYON, Huddersfield—*Cloths*
 HARRISON, GEORGE, & Co., Edinburgh—*Cloths*
 HUNT & WINTERBOTHAM, Cam and Dursley Mills—*Cloths*

MELLOR, T., & SONS, Thongs Bridge—*Cloths*
 TAYLOR & LODGE, Huddersfield—*Cloths*
 HALL & FRATER, Langholm—*Cloths*
 DIXON, NICHOLLS, & Co., Morley—*Cloths*
 RILEY BROTHERS, Huddersfield—*Cloths*
 THOMSON & DODDS, Huddersfield—*Cloths*

DAY, HOWGATE, & HOLT, Dewsbury—*Cloths*
 BIRCHALL, J. D., & Co., Leeds—*Cloths*
 HARGREAVE & NUSSEYS, Leeds—*Cloths*
 BYERS, A., & SON, Langholm—*Cloths*
 FIRTH, EDWIN, & SONS, Heckmondwike—*Cloths*
 SCOTT, A., & SON, Morley—*Cloths*
 TOLSON, HAIG, & BROOKE, Mold Green—*Cloths*
 HAIGH, GEORGE, Slaithwaite—*Cloths*
 SMITH, WM., JUN., Morley—*Cloths*
 BINNS, GODFREY, & SON—*Cloths*
 WILSON, JOHN J. & W., Kendal—*Cloths*
 VICKERMAN, B., & SONS, Huddersfield—*Cloths*
 LAING & IRVINE, Hawick—*Cloths*
 WALKER, J. & SONS, Lindley—*Cloths*

HONOURABLE MENTION.

SCOTT, ROBERT, Huddersfield—*Cloths*
 SCOTT, WALTER, Dumfries—*Cloths*
 KELSALL & KEMP, Rochdale—*Flannels*
 MCINTYRE, HOGG, & Co., Glasgow—*Flannels*
 SCHOFIELD, J., & SONS, Huddersfield—*Cloths*
 STOCKWELL, J. & E., Morley—*Union cloths*
 SCOTT, JAMES & SONS, Langholm—*Cloths*
 CROWTHER, JAMES, & SONS, Huddersfield—*Cloths*
 CAMBRIAN FLANNEL COMPANY (Limited), New-
 town—*Flannels*
 LEATHLEY, JAMES, Gildersome—*Cloths*
 WATSON, RHODES, & Co., Morley—*Cloths*
 NESS, J. D.—*Cloths*
 WADE, ADAM, Wakefield—*Cloths*
 GLENDINNING, J., Langholm—*Cloths*

CO-OPÉRATEURS.

SILVER MEDAL.

SMITH, JOSEPH, manager

BRONZE MEDALS.

SCOTT, JOHN, manager
 ADEY, JAMES, foreman

HONOURABLE MENTION.

BISHOP, manager
 PARK, JOHN, manager

CLASS XXXI.

Silk and Silk Manufactures.

GOLD MEDAL.

GREAT BRITAIN—*Stuffs of pure and mixed silk*

SILVER MEDALS.

COURTAULD, S., & Co., London—*Crapes*
 GROUT & Co., London—*Crapes*
 PIM, BROTHERS, & Co., Dublin—*Irish poplins*
 SHIERS, RICHARD, & SONS, Oldham—*Velvets*
 SEAMER, T., & SON, London—*Moirs antiques*
 TAYLOR & STOKES, London—*Silk fabrics*
 BIRCHENOUGH, J., London—*Scarfs and shawls*
 FRY, WILLIAM, & Co., Dublin—*Irish poplins*
 PRODUCERS OF INDIAN SILKS—*Silks*
 SLATER, BUCKINGHAM, & Co., London—*Scarfs*
and cravats

FRANKLIN, WM., & SON, Coventry—*Ribbons*
 CARTER & PHILLIPS, Coventry—*Ribbons*

BROUGH, NICHOLSON, & Co., Leek—*Plain and*
coloured silks

BRONZE MEDALS.

HART, JAMES, Coventry—*Ribbons*
 CHADWICK, JOHN, Manchester—*Silk fabrics*
 ELASTIC WEAVING COMPANY (Limited), Coventry
 —*Elastic webs*
 POSSELT, E., & Co., Derby—*Elastic webs*
 WANKLYN, WILLIAM, Manchester—*Silk hand-*
kerchiefs
 EVANS, D., & Co., London—*Silk fabrics*
 CARR, THOS., & Co., Leek—*Silk and fabrics*
 LISTER & Co., Halifax—*Silk waste products*
 HODGES, T. W., & SONS, Leicester—*Elastic*
fabrics
 NORWICH CRAPE COMPANY (Limited), Norwich
 —*Black crape*

HONOURABLE MENTION.

HOLME, GEORGE, Derby—*Elastic fabrics*
 TURNER, BARRS, & TOOKEY, Hulme—*Elastic*
fabrics
 KESSELMAYER & MELLODEW, Manchester—
Velvets and plushes
 GRANT & GASK, London—*Silks*
 HALL & UDALL, Manchester and Oldham—
Velvets
 PEEL, GREENHALGH, & Co., Bury—*Silk fabrics*
 SPINNERS OF THE CAPE OF GOOD HOPE (Povall
 and P. Vanderbyl)—*Silk*
 KAY & RICHARDSON, Manchester—*Crapes*

CLASS XXXII.

Shawls.

HORS CONCOURS.

CLABBURN, SONS, & CRISP, Norwich (Mr. W. H.
 Clabburn, Vice-President of the Jury)—
Silk shawls (Class 31)

GOLD MEDAL.

DEWAN SING, Cashmere—*Indian shawls*

SILVER MEDALS.

KERR, SCOTT, & Co., London—*Tartan shawls*
 AZEEZ KHAN, Cashmere—*Shawls*
 RUSSOOL SHAH, Cashmere—*Shawls*

BRONZE MEDALS.

BRIGG & SONS, Leeds—*Tartan shawls*
 BLISS, WM., & SON, Chipping Norton—*Tartan*
shawls
 NOOR SHAH, Cashmere—*Shawls*

HONOURABLE MENTION.

SMITH, G. & A., Edinburgh—*Tartan shawls*
 ROMANES & PATERSON, Edinburgh—*Tartan*
shawls (Class 30)
 MANBY, JOHN, & Co., Paris—*Tartan shawls*
 (Class 30)
 HITCHCOCK, WILLIAMS, & Co., London—*Tartan*
shawls
 JOHNSTON, J., Elgin—*Shawls of vicuna silk*

CO-OPÉRATEUR.

BRONZE MEDAL.

FUNNEL, JOHN, foreman, Messrs. Clabburn,
 Sons, & Crisp's, Norwich

CLASS XXXIII.

Lace, Net, Embroidery, and Small-ware Manufactures.

HORS CONCOURS.

BIDDLE & HAYWARDS (Mr. Daniel Biddle, member of the Jury)—*Lace*

GOLD MEDAL.

TOWN OF NOTTINGHAM—*Net*

SILVER MEDALS.

HEYMANN & ALEXANDER, Nottingham—*Lace*

JACOBY, M., & Co., Nottingham—*Lace*

COPESTAKE, MOORE, CRAMPTON, & Co., London—*Lace*

VICKERS, W., Nottingham—*Net*

HARTSHORN, JAMES, Nottingham—*Lace*

BRONZE MEDALS.

DUNNICLIFF & SMITH, Nottingham—*Lace*

AZZOPARDI, Malta—*Lace*

INDIAN COLLECTION—*Rich embroidery*

ALLEN, CHARLES, Dublin—*Irish point lace*

PACKER, MANLOVE, & Co., Nottingham—*Lace*

BARNETT & MALTRY, Nottingham—*Lace*

LESTER T., & Sons, Bedford—*Pillow lace*

JONES, MARY JANE, London—*Lace worked by the needle*

TREADWIN, CHARLOTTE ELIZABETH, Exeter—*Lace*

HONOURABLE MENTION.

BORG, P. J., Malta—*Lace*

MACLEAN, LIZZIE, Enniskillen—*Lace*

ALDERSON, Mrs., London—*Lace*

DAVIES & Co., London—*Military trimmings*

CO-OPÉRATEUR.

SILVER MEDAL.

BIDDLE, ARTHUR CUMMING, superintendent of works, Mr. Haywards's, London

CLASS XXXIV.

Hosiery and Under-Clothing, and Articles appertaining thereto.

HORS CONCOURS.

NOTTINGHAM MANUFACTURING COMPANY (Mr. A. J. Mundella, director, member of the Jury)—*Hosiery*

GOLD MEDAL.

MCINTYRE, HOGG, & BUCHANAN, London—*Shirts and linen goods*

SILVER MEDAL.

PLANT, B., & Co., Leicester—*Fancy hosiery*

SMYTH & Co., Balbriggan and Dublin—*Balbriggan hosiery*

BRONZE MEDALS.

PENTONY, HENRY, London—*Braces*

SWEETMAN, CATHERINE, London—*Baby linen*

SWEARS & WELLS, London—*Hosiery*

COLES, WM. FLETCHER, London—*Cork socks or inner soles*

MARTIN, W. H., London—*Umbrellas*

HONOURABLE MENTION.

JOWETT, JOHN, London—*Hosiery*
LANE, THOMAS, & Co., London—*Hosiery for India*

BINGLEY & DE BECKER, N., London—*Umbrellas*
HIS HIGHNESS THE MAHARAJAH OF GWALIOR, G.C.S.I., Bengal—*Fans*

HIS HIGHNESS THE MAHARAJAH HOLKAR, G.C.S.I., Bengal—*Fans*

HIS HIGHNESS THE MAHARAJAH RAMSING, G.C.S.I., Bahadoor of Jyepoore, Bengal—*Fans*

THE KOTAL CHIEF OF BENGAL—*Feather fans*

POONA, Bombay—*Feather fans*

SAWANTWAREE, Bombay—*Feather fans*

THE ASSISTANT DEPUTY, Bengal—*Fans*

BANGALORE, Mysore—*Women's clothing*

THE MAHARAJAH OF BHURTPORE, Bengal—*Fans*

BANCOORAH, Bengal—*Fans*

BHAUGULPORE, Bengal—*Fans*

NUDEA DIVISION—*Sunshades and fly fans*

SARUN—*Fly fan*

HIS MAJESTY THE KING OF SIAM—*Fans*

PEDDAPURAM, Madras—*Fans*

COMMISSIONER OF DACCA—*Fans*

THE COLLECTOR OF HOOGHLY—*Fans and screens*

COMMISSIONER OF RAJ DIVISION MOORSHEDABAD—*Fans and umbrellas*

DEPUTY COLLECTOR, Monghyr—*Velvet fans*

THE RAJAH OF NAGODE—*Canes and umbrellas*

FROM CHITULDROOG, Mysore—*Women's clothing*

FROM ELLORE—*Fans made of palmyra leaf*

MYSORE—*Fans*

CLASS XXXV.

Clothing for both Sexes.

SILVER MEDALS.

PLAYER, GEORGE, London—*Boots and shoes*

VYSE, SONS, & Co., London—*Straw hats*

CHRISTY & Co., London—*Hats*

LOEB, JOHN, London—*Boots and shoes*

BRONZE MEDALS.

TRESS & Co., London—*Silk and felt hats*

BROWNING, ELIJAH, London—*Boots and shoes*

WELCH & SONS, London—*Straw hats*

MELTON, HENRY, London—*Hats*

CARLES, Bros., London—*Wigs and head-dresses*

ATLOFF & NORMAN, London—*Boots and shoes*

HALL, JOSEPH SPARKES, London—*Boots and shoes*

MUNT, BROWN, & Co., London—*Straw hats*

GLEW, JOHN HENRY, London—*Boots and shoes*

CRAIG, CHRISTIE, & Co., Edinburgh—*Hats*

TAIT & Co., London—*Military uniforms*

EAST, SAMUEL, Exeter—*Boots and shoes*

BARBEAU, Joseph, Quebec—*Boots and shoes*

WILHELINE, JUN.—*Hair work*

HONOURABLE MENTION.

ASHTON, JOSEPH, & SONS, London—*Hats*

GAUNT & POULTER, London—*Hats*

HALL, ROBERT & SAMUEL, London—*Hats*

WILSON, WILLIAM, & Co., Newcastle-on-Tyne—*Felt hats*

INDIAN EXHIBITION—*Waterproof stuffs*
 BOWLEY & Co., London—*Boots*
 HALL, W. SPARKES, & Co., London—*Boots and shoes*
 NORMAN, SAMUEL WILLS, London—*Boots and shoes*
 MOLE, CHARLES, London—*Boots*

CLASS XXXVI.

Jewellery, Precious Stones, &c.

GOLD MEDAL.

PHILLIPS, R., London—*Jewellery*

SILVER MEDALS.

HANCOCK, C. F., SON, & Co., London—*Jewellery*
 BROGDEN, JOHN, London—*Jewellery*
 EMANUEL, HARRY, London—*Jewellery*
 HUNT & ROSKELL, London—*Jewellery*
 KESRY, CHUND, Punjaub—*Jewellery*
 RANDEL, W. & J., Birmingham—*Jewellery*
 HOWELL, JAMES, & Co., London—*Jewellery*

BRONZE MEDALS.

DABI PERSAUD, India—*Jewellery*
 CROUCH & SON, Edinburgh—*Pebble jewellery*
 WATHERSTON & SON, London—*Jewellery*
 MARSHALL, W., & Co., Edinburgh—*Scotch jewellery*
 CERVALO, Malta—*Filigree-work*
 MUSCAT, P., Malta—*Filigree-work*
 KANKYESICRAN, India—*Filigree-work*
 LUND, WALDEMAR, & Co., London—*Jewellery*
 JACOB, A., & Co., London—*Imitation jewellery*

HONOURABLE MENTION.

THOMAS, W. J., London—*Jewellery*
 TURNBULL, BROTHERS, London—*Jet ornaments*
 NEAL, JOHN, London—*Jewellery*
 WHEATLEY, JAMES, Carlisle—*Jewellery*
 WILEY, W. E., Birmingham—*Pencil cases*
 MIKALEF, Malta—*Filigree-work*
 PACE, P., Malta—*Filigree-work*
 PRECCA, Malta—*Filigree-work*

CLASS XXXVII.

Portable Weapons.

SILVER MEDALS.

LANG, JOSEPH, London—*Fire-arms*
 GREENER, WM., Birmingham—*Fire-arms*
 RELLY, E. M., & Co., London—*Fire-arms*
 WHITWORTH CO. (Limited), Manchester—*Fire-arms* (Class 66a)
 SMALL ARMS COMPANY, Birmingham—*Fire-arms*

BRONZE MEDALS.

GIBBS, GEORGE, Bristol—*Sporting guns*
 LANCASTER, ALFRED, London—*Guns and rifles*

HONOURABLE MENTION.

EXHIBITION OF EAST INDIAN ARMS
 LUDLOW, E. & A., Birmingham—*Percussion caps*
 DOUGALL, JAMES DALZIEL, London—*Fire-arms and projectiles*

PRENTICE & Co., Birmingham—*Gun-cotton cartridges* (Class 66. a.)

CLASS XXXVIII.

Travelling Apparatus and Camp Equipage.

SILVER MEDALS.

CAVE, HARRIET JANE, & SONS, London—*Trunks and travelling apparatus*
 WILKS, EDWIN, Cheltenham—*Portmanteaus and other travelling apparatus*

BRONZE MEDALS.

SILVER, S. W., & Co., London—*Travelling apparatus*
 PEENY, E., Canada—*Trunks*

HONOURABLE MENTION.

BUSSEY, SMITH, & Co., London—*Travelling apparatus*
 BARRINGTON, G., Canada—*Trunks*

CLASS XXXIX.

Toys.

SILVER MEDAL.

CREMER, WM. HENRY, JUN., London—*Toys and games*

CO-OPÉRATEURS.

BRONZE MEDAL.

MEREDETH, ELLEN CREMER, London—*Dolls*

HONOURABLE MENTION.

BAX, MDLLE. CLARA, principal workwoman, Mr. Cremer's

GROUP V.

Products (Raw and Manufactured) of Mining, Industry, Forestry, &c.

CLASS XL.

Mining and Metallurgy.

HORS CONCOURS.

GEOLOGICAL COMMISSION OF CANADA—*Minerals*
 GEOLOGICAL SURVEY OF VICTORIA—*Geological studies*
 DUDLEY, EARL OF (member of the Jury)—*Iron and minerals*

GOLD MEDALS.

BROWN, SIR JOHN, & Co. (Limited), Sheffield—*Manufactures in iron and steel*
 JOHNSON, MATTHEY, & Co., London—*Precious metals*
 BOWLING IRON COMPANY, near Bradford—*Iron and copper manufactures*
 BARROW HEMATITE STEEL CO., Ulverstone—*Iron and steel manufactures*

THE LOW MOOR IRON COMPANY, Bradford—*Ores and wrought iron*
 THE LILLESALL COMPANY, Shiffnall—*Coal, ores, and iron*
 NEW SOUTH WALES COMMISSION—*Minerals and ores*
 BURYS & Co., Sheffield—*Steel tools and files*
 MONKBRIDGE IRON Co., Leeds—*Cast steel tyres, locomotive axles, boiler plates and bar iron*
 TURTON, THOMAS, & SONS, Sheffield—*Steel, files, and tools*

SILVER MEDALS.

DOWLAIS IRON WORKS—*Casting and iron*
 RUSSELL, JAMES, & SONS, Wednesbury—*Iron tubes and castings* (Class 53)
 LLOYD & LLOYD, Birmingham—*Iron tubes* (Class 53)
 RUSSELL, JOHN, & Co., London—*Iron tubes* (Class 53)
 TAYLOR BROS. & Co., Leeds—*Tyres, axles, &c.*
 PATENT NUT & BOLT COMPANY (Limited), Birmingham—*Nuts, bolts, &c.*
 LOVERIDGE, H., & Co., Wolverhampton—*Japanned wares*
 BEARD, AMBROSE, & SONS, Bilston—*Sheet and plate iron*
 HART & SON, London—*Ornamental metal objects*
 BOULTON, WM., & SON, Redditch—*Needles*
 EVERITT, A., & SONS, Birmingham—*Tubes and rolled metals*
 JOHNSON, RICHARD, & NEPHEW, Manchester—*Telegraphic wire*
 THE MOONTA MINES Co., South Australia—*Copper ore*
 SMYTH, R. BROUGH, Victoria—*Minerals*
 TONKS, WM., & SONS, Birmingham—*Brass work*
 GILPIN, W., SENIOR, & Co., Cannock—*Edge tools*
 KIRBY, BEARD, & Co., London—*Needles*
 PATENT PLUMBAGO CRUCIBLE Co., Battersea—*Plumbago crucibles*
 HYNAM, JOHN, London—*Plumbago crucibles*
 THE WALLAROO MINING Co., South Australia—*Copper ore*
 GENERAL MINING ASSOCIATION, Nova Scotia—*Block of coal*
 EAGLE IRON WORKS (HOLLINSWOOD) Co. (Limited), Wellington—*Iron rods for wire drawing*
 EVANS & ASKIN, Birmingham—*German-silver manufactures, cobalt and nickel refining*
 COMFORT, EDWIN J., & Co., London—*Fine wove wires, &c.*
 HAMILTON, P. S., for the Government of Nova Scotia—*Gold and quartz*
 WHITLEY, JOSEPH, & Co., Leeds—*Brass steam fittings, taps, &c.*
 BARTLETT, WILLIAM, & SONS, Redditch—*Needles and fish-hooks*
 WEST CUMBERLAND HEMATITE IRON COMPANY (Limited), Workington—*Iron, boiler plates, &c.*
 SHARP, BROWN, & Co., Birmingham—*Iron and iron wire*

BRONZE MEDALS.

BLAENAVON COMPANY (Limited), London—*Iron, coal, coke*
 WIGAN COAL & IRON Co. (Limited), Wigan—*Coal and castings*
 WALKER, JOSEPH, PARKER, & Co., Newcastle-on-Tyne—*White-lead and sheet-lead*
 ABERDARE COAL Co., Cardiff—*Steam coal*
 BOWLLA COLLIERY Co., London—*Coal*
 RECKITT & SONS, Hull and London—*Black-lead*
 ZOBEL, JULIUS, London—*Hammered metal work*
 BROUGHTON COPPER Co. (Limited), Manchester—*Manufactured copper and brass*
 GREENING, N., & SONS, Warrington—*Steam wove wire*
 AYERS, H., Burra Burra Mines, South Australia—*Copper ore*
 WEBSTER & HORSFALL, Birmingham—*Patent steel wire*
 MILWARD, HENRY, & SONS, Redditch—*Needles*
 FROTHINGHAM & WORKMAN, Montreal—*Tools*
 TOWNSEND, GEORGE, & Co., Redditch—*Needles, shuttles for sewing-machines*
 HILL, JOSEPH, Birmingham—*Ripoussé metal work, gilt bronze*
 CLARK, T. & C., & Co., Wolverhampton—*Enamelled and tinned cast-iron ware*
 ELLIOTT'S PATENT SHEATHING & METAL Co., Birmingham—*Copper and brass*
 MOREWOOD & ROGERS, London—*Rolled tin*
 GREEN'S PATENT TUBE Co. (Limited), Birmingham—*Solid drawn tubes*
 BETTS & Co., London—*Tin capsules*
 BIRMINGHAM PATENT IRON & BRASS TUBE Co., Smethwick—*Iron and brass tubes*
 MARTINEAU & SMITH, Birmingham—*Brass and gun-metal cocks*
 BAUGH, BENJAMIN, Birmingham—*Hollow-ware and tablets*
 MORETON, JOHN, & Co., Wolverhampton—*Hardware*
 SMITH, FREDERICK, & Co., Halifax—*Iron wire*
 ENGLISH & AUSTRALIAN COPPER Co., London—*Copper*
 MURNINNIE BISMUTH & COPPER Co., South Australia—*Ores and metals*
 HASWELL COAL Co., Sunderland—*Coal*
 BODRINGALT COAL Co., Cardiff—*Steam coal*
 DAVIS, D., & SONS, Cardiff—*Steam coal*
 HONEYMAN, DR., Nova Scotia—*Collection of rocks and fossils*
 STICKLEY, JAMES, London—*Precious metals, gold leaf*
 HEeley, JAMES, & SONS, Birmingham—*Cork-screws, nut-crackers, key-rings, &c.*
 PAGE, JOSEPH, Birmingham—*Corkscrews*
 MACDONALD, FIELD, & Co., Aberdeen—*Polished granite*
 ADDIS, SAMUEL JOSEPH, London—*Edge tools*
 HILL & SKERRY, Nova Scotia—*Tools and skates*
 GRAPHITES DE CANADA
 HODGES, J., Canada—*Peat*

HONOURABLE MENTION.

MACPHERSON, LEWIS, Victoria—*Quartz*
 G G

HOW, H., Nova Scotia—*Collection of minerals*
 TRINIDAD COMMISSION—*Bitumen*
 MARTIN BROTHERS, St. Austell—*China stone*
 VANE, THE EARL, Sunderland—*Coal*
 BARNES, W., Nova Scotia—*Collection of carboniferous fossils*
 SOPWITH, THOMAS, London—*Lead ores*
 GALIZIA, EMMANUELE, Valletta, Malta—*Specimens of rocks*
 ENGELHART, A., Burra Burra, South Australia—*Malachite*
 BROTHERTON, JOHN, & Co., Wolverhampton—*Welded wrought-iron tubes*
 YSTALYFERA IRON AND TIN PLATE CO., Swansea—*Tin plates*
 VICKERMAN & Co., Tenby—*Iron*
 LEACH, FLOWER, & Co., Neath—*Tin plates*
 BRABY, FREDERICK, & Co. (Limited), London—*Zinc and galvanised iron roofing*
 BANKART & SONS, Briton Ferry—*Copper ores*
 BENHAM & SONS, London—*Ornamental metal work*
 MORLAND, WATSON, & Co., Montreal—*Saws*
 HEATH, WM., Redditch—*Sewing-machine needles*
 BIRMINGHAM AND NORTH OF ENGLAND PATENT FORGED NAIL & RIVET CO. (Limited), York—*Nails and rivets*
 MILWARD, J. F., Birmingham—*Awl blades and sewing machine needles*
 JAMES FOUNDRY COMPANY, Walsall—*Builders' ironmongery*
 PARKES, JOHN I., Smethwick—*Cut nails*
 HIGGINS, J., Saint Hilaire, Canada—*Tools*
 STANLEY, FREDERICK T., London—*Horse shoes*
 DOLLAR BROTHERS, London—*Horse shoes*
 SMITH, JOHN WRIGHT, Leicester—*Self-acting needles*
 DATE, H. W., Canada—*Tools*
 PRATT BROTHERS & FARMER, Birmingham—*Needles secured on paper by machinery*
 GREEN, A., Sheffield—*Currier's tools*
 STARR & SONS, Nova Scotia—*Skates and tools*
 HILL, J. VAUGHAN, London—*Hand-saws*
 HAYES, CROSSLEY, & BENNETT, Alcester and London—*Easy sewing needles*
 CAPE COPPER MINING CO., Namaqualand—*Copper ores*
 PEAK DOWNS COPPER MINING CO., Queensland—*Copper ores*
 NEWFOUNDLAND GEOLOGICAL SURVEY—*Collection*
 WATSON, JOHN, & SONS, Bathville—*Objects in Boghead cannel*
 PERRINS & HARRISON, Stourbridge—*Fireclay*
 TALISKER MINING CO., South Australia—*Ores*
 GREGORY, JAMES R., London—*Minerals*
 LANGMEAD, G., Newfoundland—*Galena*
 WHITEWAY & Co., Kingsteignton—*Tobacco pipe and potters' clays*
 WHEAL COGLIN MINING CO., South Australia—*Silver lead ore*
 GODING, F., M.D., Barbadoes—*Bitumen*
 COHN, Placentia Bay, Newfoundland—*Galena*
 TUDOR, S. & W., London—*White lead*
 FLINT, G., St. Catherine, Canada—*Saws*
 BIGELOW, J. T., & Co., Montreal—*Nails, &c.*

EVANS, H. C., Canada—*Tools*
 DAWSON, J., Montreal—*Tools*
 ABBOT, E. E., Canada—*Bolts*
 COMPAGNIE DES MINES DU CANADA OCCIDENTAL—*Copper ores*
 COMPAGNIE ANGLO-CANADIENNE—*Copper ores*
 COMPAGNIE DES MINES DE ST. FRANÇOIS, Canada—*Copper ores*
 GROUPE DES MINES DE BOLTON, Canada—*Copper ores*
 GROUPE DES MINES D'ASTCOTT, Canada—*Copper ores*
 COMPAGNIE DE LA RIVIÈRE MOISIEL, Canada—*Sand containing oxidulated iron*
 COMPAGNIE DES SALINES DE GODELICH, Canada—*Salt*

CO-OPÉRATEURS.

GRAND PRIX.

BESSEMER, H., London—*Manufacture of steel*

BRONZE MEDAL.

MURRAY, Canada—*For active co-operation in the work of the Canadian Geological Commission*

BILLINGS, Geological Survey, Canada—*For active co-operation in the work of the Canadian Geological Commission*

CLASS XLI.

Products of the Cultivation of Forests, and of the Trades appertaining thereto.

HORS CONCOURS.

NEW SOUTH WALES COMMISSION—*Wood for building purposes*

BRITISH GUIANA GOVERNMENT COMMISSION—*Collection of woods and cabinet-work*

QUEENSLAND GOVERNMENT COMMISSION—*Specimens of woods*

MYSORE, East Indies—*Collection of woods*

MADRAS PRESIDENCY, East Indies—*Samples of woods*

GOLD MEDAL.

BRUNET, l'Abbé, Quebec—*Collection of woods herbal, and photographs of trees and plants*

SILVER MEDALS.

OFFICE OF INSPECTORS OF WOODS, Quebec—*Collection of woods for commercial purposes*

MILLAR, JOHN, Montreal—*Extract of bark for tanning purposes*

BRONZE MEDALS.

EADON, E. C., Montmorency—*Buckets, tubs, and utensils*

SCIENCE AND ART DEPARTMENT, London—*Samples of woods experimented on*

SCHAEFER, J., Montreal—*Doors and windows made by machinery*

QUEENSLAND COMMISSION—*Collection of woods for cabinet work*

VICTORIA ROYAL COMMISSIONERS—*Wood for building purposes*

HAMILTON BROTHERS, Canada—*Samples of woods*

HONOURABLE MENTION.

SHAW BROTHERS, Natal—*Native woods*
 PATERSON, P., Natal—*Native woods*
 RUSSEL & Co., Natal—*Native woods*
 LANDSBERG, Natal—*Native woods*
 MARSH, M. H., Queensland—*Collection of woods*
 CUTHBERT, JOHN, Sydney—*Samples of woods for cabinet-making*
 JOHORE COMPANY, Singapore—*Collection of woods*
 NELSON, WOOD, & Co., Montreal—*Basket work*
 CHAMPAGNE, ISIDORE, Canada—*Sections of trees*
 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY—*Samples of native woods*
 MELLER, DR., Mauritius—*Samples of native woods*
 JOLLY, W., & Co., New South Wales—*Samples of woods and cabinet work*
 DEXTER, J., Nova Scotia—*Specimens of woods and cabinet work*
 BOSISTO, Victoria—*Essential oils*
 SLATER, W. H., Nunnawadin—*Essential oils*
 HAGAR, G., & Co., Montreal—*Household utensils*
 NORMAN, SAMUEL, London—*Wooden boots and clogs*
 WESTLAKE, SAMUEL, London—*Veneers of choice foreign woods*
 BROWN, LAWRENCE, Leicester—*Timber bent by steam*
 PLOUFFE, LUC, St. Martin, Canada—*Axe handles*

CO-OPÉRATEUR.

GOLD MEDAL.

TACHÉ, J. C., Canada—*Collection of woods*

CLASS XLII.

Products of Shooting, Fishing, and of the Earth obtained without Culture.

SILVER MEDALS.

KREFFT, Sydney—*Collection of stuffed animals*
 DOWNS, ANDREW, Nova Scotia—*Stuffed birds*
 BENJAMIN, J., Graham's Town, Cape of Good Hope—*Ostrich feathers*
 BEVINGTON & MORRIS, London—*Dyed skins* (Class 46)
 WARD, EDWIN, London—*Stuffed animals. Tiger and lion group*
 DEED, JOHN S., & SONS, London—*Dyed skins* (Class 46)
 MITCHELL, CAPTAIN, Madras—*Stuffed fishes*
 WARD, HENRY, London—*Stuffed birds*

BRONZE MEDALS.

KURELLA, Cape Town—*Ostrich feathers*
 BAHAMAS COMMITTEE OF SUPERINTENDENCE—*Sponges*
 COTÉ, O., Quebec—*Furs and skins*

HONOURABLE MENTION.

ANDRADE, M. DE COSTA, & Co., London—*Stuffed birds* (Class 46)

CLASS XLIII.

Agricultural Products (not used as Food) easily preserved.

HORS CONCOURS.

GOVERNMENT OF BOMBAY—*Cotton*
 GOVERNMENT OF BRITISH INDIA—*Jute, &c.*

GRAND PRIX.

BRITISH INDIA—*Cultivation of cotton*

GOLD MEDAL.

TOWNS, R., & Co., Queensland—*Cotton*

SILVER MEDALS.

BELL, JOHN, Victoria—*Wools*
 NEIGHBOUR, G. & SONS, London—*Oils*
 ST. ANNE'S MODEL FARM, Canada—*Collection of products*

BRONZE MEDALS.

LEARMOUTH, T. & S., Victoria—*Wools*
 ROBERTSON, A. S., Victoria—*Wool*
 RUSSEL, P., Victoria—*Wool*
 ORMOND, F., Victoria—*Wool*
 CURRIE, J. L., Victoria—*Wool*
 THOMSON, G., Victoria—*Wool*
 BAYLEY, N. P., New South Wales—*Wool*
 COX, G. H., New South Wales—*Wool*
 COLLYER, DR. R. H., Boulogne-sur-Mer—*Flax*
 DONALDSON, J. A., Toronto—*Flax*
 DAVIS, Queensland—*Cotton*
 WINTER, A., British Guiana—*Cotton*
 MELLER, DR., Mauritius—*Textile fibres*
 TRINIDAD COMMISSION—*Textile fibres*
 WICKS, P., Cape Town—*Fibres*
 NEW SOUTH WALES COMMISSION—*Fibres*
 EVANS & STAFFORD, Leicester—*Cigars*
 COUGET & Co., Mauritius—*Tobacco and cigars*
 DAVIS, SAMUEL, Montreal—*Tobacco and cigars*
 POLITZ & Co., Melbourne—*Tobacco*
 CAMPBELL, New South Wales—*Tobacco for chewing*
 GENAND, DR., Canada—*Tobacco*
 MOHIARA RAY CHOWDREE—*India-Leaf tobacco*
 WINDLE, J. D., Oldham—*Oil for chronometers and watches*
 DAVIS, E. JOHN, London—*Compressed fodder*
 RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, & Co. (LIMITED), Basingstoke—*Collection of seeds* (Class 67)
 BOUTON, LOUIS, Mauritius—*Medicinal plants*
 TOOTH, Queensland—*Wool*
 KIRKWOOD, A., Toronto—*Divers products*

HONOURABLE MENTION.

CAPE OF GOOD HOPE AGRICULTURAL SOCIETY—*Wool and tobacco*
 ANGAS, J. H., South Australia—*Wool*
 SHAW, T., Victoria—*Wool*
 GILL, G. D., Victoria—*Wool*
 DUNMORE, Victoria—*Wool*
 GOLDSBOROUGH & Co., Victoria—*Wool*
 DE GRAVE, HON. W., Victoria—*Wool*

J. H. T., Studley Park, Victoria—*Wool*
 DOUGLAS, A., & Co., Victoria—*Wool*
 KUMMERER, A. R., New South Wales—*Wool*
 COOPER, SIR DANIEL, BART., New South Wales—*Wool*
 BACKER, W. E., Port Natal—*Wool*
 BARRY & NEPHEW, Cape of Good Hope—*Wool, down*
 MORTON & Co., Canada—*Flax*
 PANTON, Queensland—*Cotton*
 ORE, G., Queensland—*Cotton*
 FAIRBAIRN, British Guiana—*Cotton*
 GREGOR, J., New South Wales—*Cotton*
 MICHAEL, J. L., New South Wales—*Cotton*
 EBSWORTH, New South Wales—*Cotton*
 ZANELLI, A., New South Wales—*Cotton*
 BUNING, J.—*Cocoons*
 COOK, J., Cape of Good Hope—*Textile plants*
 MOORE, C., New South Wales—*Fibres*
 BAWDEN, J., New South Wales—*Textile fibres*
 HENDERSON, E., New South Wales—*Fibres*
 SIMMONDS, I., Lagos—*Collection of fibres*
 STARKE, SMITH, & Co., Montreal—*Tobacco*
 BERGICOURT, T., Mauritius—*Tobacco and cigars*
 WHITE & Co., Melbourne—*Tobacco and cigars*
 LAROCHE, E., Canada—*Tobacco*
 BARRY-MUNICK, J., Cape Town—*Tobacco*
 BABOO RUMONEE MOHUNROY, CHOWDREE, Rungpore—*Leaf tobacco*
 FELGATE, J., Queensland—*Tobacco*
 THOMPSON, J., Queensland—*Tobacco*
 PHILLIPS, Natal—*Tobacco and cigars*
 MIDDLETON, W. H., Natal—*Tobacco and cigars*
 GLINISTER, J. E., Natal—*Tobacco and cigars*
 SCHÄFER, RODOLF, New South Wales—*Tobacco*
 WOOLLOTON & SON, London—*Hops* (Class 67)
 BAKERS, WHITE, & MORGAN, London—*Hops* (Class 67)
 KITCHIN, J., Westerham—*Hops* (Class 67)
 CANOVER, Canada—*Hops*
 MALTA AGRICULTURAL SOCIETY—*Honey and wax*
 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY—*Honey and wax*
 EAST INDIES—*Collection of tanning and other substances*
 AUSTEN, G. A., New Zealand—*Wool*

CO-OPÉRATEUR.

SILVER MEDAL.

SIMMONDS, P. L., Agent for Colonies

CLASS XLIV.

Chemical and Pharmaceutical Products.

HORS CONCOURS.

ALLEN & HANBURYS (Mr. D. Hanbury, member of the Jury), London—*Chemical and pharmaceutical products*
 CHANCE BROTHERS & Co. (Mr. H. Chance, member of the Jury), Birmingham—*Alkali manufactures*

GOLD MEDALS.

ALLHUSEN, C., & SONS, Newcastle-on-Tyne—

Preparations of soda and various chemical products

GOSPAGE, W. & SONS, Widnes—*Improvements in preparation of soda*
 MUSPRATT, JAMES, & SONS, Liverpool—*Alkali manufactures*
 JARROW CHEMICAL COMPANY, South Shields—*Alkaline and other chemical products*
 HOWARD & SONS, Stratford—*Salts of quinine*
 PRICE'S PATENT CANDLE COMPANY (LIMITED), London—*Candles, glycerine, and soap*
 YOUNG, JAMES, Bathgate—*Paraffin candles and oils*

SILVER MEDALS.

GASKELL, DEACON, & Co., Widnes—*Products of soda and other products*
 WALKER ALKALI COMPANY, Newcastle-on-Tyne—*Products of soda and ammonia*
 MACFARLAN, J. F. & Co., Edinburgh—*Chemical products, and alkaloids*
 MORSON, THOMAS, & SON, London—*Alkaloids and other chemical products*
 SMITH, T. & H., & Co., Edinburgh and London—*Chemical products*
 JOHNSON, MATTHEY, & Co., London—*Chemical and pharmaceutical products*
 FIELD, J. C. & J., London—*Candles*
 DENTON & JUTSUM, London—*Varnish and oils*
 MANDER BROTHERS, Wolverhampton—*Varnish*
 DEMUTH, LEWIS, & Co., Oldbury—*Coal-tar products*
 WARNE, WM., & Co., London—*Manufactures of india-rubber*
 PARKES, ALEXANDER, Birmingham—*Artificial india-rubber* ('Parkesine')
 ROSE, WM. A., London—*Grease and oil*
 BEWICKE & VINCENT, London—*Varnish*
 CALVERT, F. CRACE, & Co., Bradford—*Carbolic acid, and coralline*
 TUDOR, S. & W., London—*White-lead, and red lead*
 KNIGHT, J. & SONS, London—*Primrose soap* (Class 40)
 LYMAN, CLARE, & Co., Montreal—*Salts of potash, &c.*
 BRITISH SEAWEED COMPANY (LIMITED), Glasgow—*Products from marine plants*
 GIBBS, DAVID & WILLIAM, London—*Manufacturer's and household soap*
 BAILEY, JOHN, Stoke-upon-Trent—*Colours for painting pottery and glass*
 WILKINSON, HEYWOODS, & CLARK, London—*Colours and varnish*
 COW, P. B., HILL, & Co., London—*India-rubber manufactures*
 HOPKIN & WILLIAMS, London—*Chemical products*
 CONDY, HENRY B., London—*Disinfectants* ('Condy's Fluid')
 HURLET & CAMPSIE ALUM CO., Glasgow—*Alum and prussiates*
 COOK, E., & Co., London—*Soaps*
 OGLEBY, CHARLES, & Co., London—*Candles and soap*
 JARDINE, SKINNER, & Co., Bengal—*Indigos*

BRONZE MEDALS.

MAY & BAKER, London—*Chemical products*
 HODGSON & SIMPSON, Wakefield—*Soap*
 TAYLOR, W., & Co., Leith—*Candles and shale oils*
 DAY & MARTIN, London—*Blacking*
 GARROD & Co., London—*Varnish*
 MACKAY, JOHN, Edinburgh—*Varnish*
 MASON, JOSEPH & Co., Derby—*Varnish*
 TURNER, C., & SON, London—*Varnish*
 LOWE, CHARLES, & Co., Manchester—*Carbolic acid and coralline*
 DODGE, G. P., London—*India-rubber objects*
 BRITANNIA RUBBER & KAMPTULICON COMPANY, London—*India-rubber objects*
 PULFORD, G. C., London—*Magnetic paints*
 STEPHENS, HENRY, London—*Stains for dyeing wood*
 WALKER, JOSEPH, PARKER, & Co., Newcastle-on-Tyne—*Red and white lead*
 LANGTON & BICKNELLS, London—*Spermaceti*
 HAAS, J. R., & Co., Leeds—*Pure indigo and carmine of indigo*
 McDougall Brothers, Manchester and London—*Disinfectant products*
 COOK, W., & Co., Newcastle-on-Tyne—*Bicarbonate of soda*
 FRESSON, British Guiana—*Beberine, &c.*
 BURGOYNE, BURBIDGES, & SQUIRE, London—*Raw drugs and chemicals*
 DAVY, YATES, & ROUTLEDGE, London—*Chemical products*
 SQUIRE, PETER, London—*Preparations of the British pharmacopœia*
 DARNEY, J., & SONS, Kinghorn, London—*Glue*
 WINDLE, J. D., Oldham—*Oil for machinery* (Class 43)
 GOODWIN, W., Hanley—*Varnish*
 HOSEGOOD & Co., London—*Paints*
 LAMBE & STERRY, London—*Paraffin and candles*
 HELL, H., & Co., Bengal—*Indigo*
 CLARKE, SAMUEL, London—*Candles and night lights*

HONOURABLE MENTION.

CALLEY, SAMUEL, Brixham—*Iron oxide paints*
 ROGERS, E. S., & Co., Manchester—*Mineral oils* (Class 43)
 BROWN, J., Natal—*Soap*
 HOBSON'S BAY Co., Victoria—*Soap*
 NIMMO, T., & Co., Linlithgow—*Glue*
 HUSKISSON, W., & SONS, London—*Chemical products*
 HOLLAND, W., Market Deeping—*Essential oils*
 BUSH, WM. JOHN, London—*Essential oils*
 RANSOM, WM., Hitchin—*Pharmaceutical products and essential oils*
 TALBOT & ALDER, London—*Colours*
 GREEN—*Gelatin*
 ADAMS, JOHN, Sheffield—*Cleaning powder*
 RUMSEY, WM. S., London—*Cleaning powder*
 BIRDWOOD, DR., India—*Collection of drugs*
 BABOO KANY LALL DEY, Calcutta—*Collection of indigenous drugs*
 LANGE & MOSEL, Cape of Good Hope—*Alkali and grease*
 L'ESPÉRANCE, Canada—*Fish oil*

TILLEY, J., Newfoundland—*Cod-liver oil*
 WARING, E. J., London—*Medical plants of the new India pharmacopœia*
 WARRINGTON, J., Newfoundland—*Cod-liver oil*
 FITZ, J., Melbourne—*Glue and oil*
 HONNENS & Co., Victoria—*Glue*
 SHARON CHEMICAL Co., Derby—*Sulphuric acid and other chemical products*

CO-OPÉRATEUR.

GOLD MEDAL.

NICHOLSON, EDWARD CHAMBERS, London—*Inventor of crisaneline*

CLASS XLV.

Specimens of the Chemical Processes for Bleaching, Dyeing, Printing, and Dressing.

SILVER MEDALS.

RIPLEY, EDWARD, & SON, Bradford—*Textile fabrics dyed in all colours*
 HANDS, SON, & Co., Burges—*Skein silk, dyed and white* (Class 31)

BRONZE MEDALS.

BARLOW, SAMUEL, & Co., Manchester—*Specimens of cotton in all colours dyed and finished* (Class 27)
 DICKINS & Co., Manchester—*Thread, white, dyed, and finished* (Class 27)
 HOWE, JOSEPH, & Co., Coventry—*Skein silk, white and dyed*

HONOURABLE MENTION.

WHINCUP, JOSEPH, London—*Specimens of printed wool*
 MCNAUGHTAN & THOM, Manchester—*Specimens of printed calico*

CLASS XLVI.

Leather and Skins.

SILVER MEDALS.

WILSON, WALKER, & Co., Leeds—*Fancy leathers*
 DIXON, JOHN, London—*Enamelled leather*
 FLITCH, J. J., & SON, Leeds—*Dyed leather*
 PUCKRIDGE, F., & NEPHEW, London—*Gold-beater's skin*
 EVANS, PARKER, SPARKE, & Co., Bristol—*Sole leather*
 WINTER & MASTERS, London—*Skins and leather*
 MOSELEY, RICKERT, & Co., Montreal—*Varnished leather*

BRONZE MEDALS.

DEED, JOHN S., & SONS, London—*Morocco leathers*
 PULLMAN, R. & J., London—*Chamois skins*
 CLARK & SONS, Victoria—*Leather*
 TÊTU, D., Canada—*Porpoise leather*
 VALOIS, N., Canada—*Leather*

HONOURABLE MENTION.

WEBB & SON, Stowmarket—*Leather machine bands*
 PEACOCK, W., & SONS, South Australia—*Skins, leather, &c.*
 BAYLEY, THOMAS, Lenton—*Coloured skivers*

BREARLY BROS., Melbourne—*Leather for soles*
 ALDERSON, Australia—*Leather*
 DUGAL, P., Quebec—*Leather*

GROUP VI.

Apparatus and Processes used in the Common Arts.

CLASS XLVII.

Apparatus and Processes of the Art of Mining and Metallurgy.

HORS CONCOURS.

MUSEUM OF PRACTICAL GEOLOGY AND ROYAL SCHOOL OF MINES—*Model of machinery for making steel by Bessemer's process*
 CAPTAINS BEAUMONT AND LOCOCK, London [Captain Beaumont, Associate Juror]—*Rock-boring Machine*

SILVER MEDALS.

CARRETT, MARSHALL, & Co., Leeds—*Coal cutting machine*
 JONES & LEVICK, Blaina—*Coal cutting machine*

BRONZE MEDALS.

BICKFORD, SMITH, & Co., Tuckingmill—*Safety fuses*
 TOWLER & Co., London—*Block*

HONOURABLE MENTION.

SYMONDS & Co., Nova Scotia—*Crushing machine*

CO-OPÉRATEUR.

BRONZE MEDAL.

JORDAN, THOMAS BROWN, London—*Execution of a model exhibited by the Museum of Practical Geology*

CLASS XLVIII.

Agricultural Apparatus, &c.

GOLD MEDALS.

HOWARD, J. & F., Bedford—*Ploughs, and various agricultural machinery*
 CLAYTON, SHUTTLEWORTH, & Co., Lincoln—*Portable and traction engines, and thrashing machines*
 FOWLER, J., & Co., London—*Steam plough*
 GARRETT, R., & SONS, Leiston Works—*Portable engine, agricultural machinery*
 RANSOMES & SIMS, Ipswich—*Portable engine, agricultural machinery*
 HORNSBY, R., & SONS, Grantham—*Portable engine, thrashing machine, reapers*

SILVER MEDALS.

AVELING & PORTER, London—*Traction engine*
 BENTALL, E. H., Heybridge—*Agricultural implements*
 SAMUELSON & Co., Banbury—*Agricultural implements*

MARSHALL, SONS, & Co. (Limited) Gainsborough—*Portable engine and thrashing machine*
 RICHMOND & CHANDLER, Salford—*Chaff and corn cutting machines*
 ROBEY & Co. (Limited), Lincoln—*Portable engine, thrashing machine*
 TURNER, E. R. & F., Ipswich—*Agricultural machines, locomotive*
 COLEMAN & MORTON, Chelmsford—*Agricultural machinery*
 PICKSLEY, SIMS, & Co. (Limited), Bedford-leigh—*Agricultural machinery*
 READING IRON WORKS, Reading—*Steam machinery and agricultural implements*
 PENNEY & Co. (Limited), Lincoln—*Winnowing machine*
 SMYTH, J., & SONS, Peasenhall—*Sowing machines and manure distributors*

BRONZE MEDALS.

NICHOLSON, W. N., Newark—*Agricultural machines*
 RUSTON, PROCTOR, & Co., Lincoln—*Portable engine, thrashing machines, and agricultural implements*
 SMITH, WM., Kettering—*Agricultural machines*
 WALLIS, HASLAM, & STEEVENS, Basingstoke—*Thrashing machines*
 WOODS & COCKSEGE, Stowmarket—*Agricultural implements*
 ASHEY & JEFFERY, Stamford—*Agricultural implements*
 BAMLETT, A. C., Thirsk—*Reaping and mowing machines*
 KEARSLEY, HENRY & GEORGE, Ripon—*Reaping and mowing machines*

HONOURABLE MENTION.

AMIES, BARFORD, & Co., Peterborough—*Agricultural implements*
 DUNCAN, A., Canada—*Ploughs*
 UNDERHILL, W. S., Newport—*Thrashing machines, horse rakes, cultivators*
 BALL, W., & Son, Rothwell—*Agricultural implements*
 MORGAN, J. & G., Canada—*Extirpators*
 BROWN, W., & MAY, C. N., Devizes—*Thrashing machines and steam engines*
 FOX, WALKER, & Co., Bristol—*Portable steam engine*
 PARKES, PALMER, & HODGKINSON, Birmingham—*Agricultural implements (spades, shovels, etc.)*
 PATERSON, BROTHERS, Canada—*Winnowing machine and straw-cutter*

CO-OPÉRATEURS.

BRONZE MEDALS.

BOUSFIELD, E., Bedford, manager, Messrs. Howard
 BIDDEL, G., Ipswich, manager, Ransomes & Sims
 GREIG, D., London, manager, J. Fowler & Co.
 WILKINSON, GEORGE, Lincoln, manager, Clayton, Shuttleworth, & Co.

CLASS XLIX.

Apparatus used in Shooting, Fishing,
&c.

HORS CONCOURS.

COMMISSIONERS OF IRISH FISHERIES, Dublin—
Models of salmon ladders

SILVER MEDALS.

STUART, J. & W., Musselburgh—*Nets* (Class 33)
KIRBY, BEARD, & Co., London and Paris—*Fish
hooks* (Class 40)

ALDRED, THOS., London—*Fishing rods and lines*

BRONZE MEDALS.

MILWARD, HENRY, & Sons, Redditch—*Fish
hooks* (Class 40)

BARTLEET, WILLIAM, & Sons, Redditch—*Fish
hooks* (Class 40)

HONOURABLE MENTION.

RYDER, WM. H., Birmingham—*Fishing reels*
BUCHANAN, JAMES, Glasgow—*Fish hooks*

CLASS L.

Apparatus and Processes used in Agri-
cultural Works and in Works for the
Preparation of Food.

HORS CONCOURS.

ADMIRALTY, London—*Cooking apparatus and
specimens of food used in the Royal Navy*

SILVER MEDALS.

ATMOSPHERIC CHURN COMPANY, London—
Apparatus for making butter

CLAYTON, H., & Co., London—*Machines for
brick making*

BRADFORD, T., & Co., London—*Washing and
drying machines*

SPENCER, THOMAS, London—*Filters*

BRONZE MEDALS.

COLLIER, LUKE, Rochdale—*Confectioners' ma-
chines*

FLEET, E., & Co., London—*Apparatus for
making soda water; corking machine*

KENT, GEORGE, London—*Apparatus for pastry-
cooks and confectioners*

LYON, A., London—*Mincing and sausage making
machines*

PONTIFEX, H., & Sons, London—*Apparatus for
brewers and distillers*

ROBINSON, WILLIAM, Bridgwater—*Barrel-
cleaning machine*

SILICATED CARBON FILTER Co., London—*Filters
and water purifiers*

TYE, JOHN, Lincoln—*Machinery for flour mills*

PERKINS, LOFTUS, London—*Military portable
oven* (Class 24)

HONOURABLE MENTION.

BARNETT, S., London—*Apparatus for the manu-
facture of mineral waters*

BAWDEN, P., London—*Brick-making machine*
CANADIAN WASHING MACHINE AND AGRICUL-
TURAL IMPLEMENT Co. (Limited), Worcester
—*Washing machine*

CLARKE & DUNHAM, London—*Millstones and
machinery for flour mills*

FARROW & JACKSON, London—*Iron wine bins
and bar fittings*

KEITH, GEORGE, London—*Patent ice safes, and
freezing powders*

SUMMERSCALES, W., & Sons, Keighley—*Wash-
ing, wringing, and mangling machines*

WENHAM LAKE ICE Co., London—*Refrigerators*
WHITMÉE, J., & Co., London—*Corn mills and
ventilating incubators*

WILLIAMSON, W., London—*Scouring, washing,
and calendering machines*

HICKLING, W. E., Leicester—*Bottle-washing
machine* (Class 60)

CARSON & TOONE, Warminster—*Dairy utensils*
(Class 48)

CLASS LI.

Apparatus used in Chemistry, Phar-
macy, and in Tanyards.

GRAND PRIX.

SIEMENS, C. W., London—*Regenerative gas
furnace* (Class 65)

GOLD MEDAL.

JOHNSON, MATTHEY, & Co., London—*Platinum
process*

SILVER MEDALS.

COX, STEPHEN (Stothert & Pitt, the Exhibitors
and Manufacturers of the Machine)—*Tan-
ning process*

PATENT PLUMBAGO CRUCIBLE Co., London—
Plumbago crucibles (Class 47)

BRONZE MEDAL.

PORTER, J. T. B., & Co., Lincoln—*Production
of gas by petroleum*

HYNAM, JOHN, London—*Plumbago crucibles*
(Class 47)

DOULTON & WATTS, London—*Plumbago crucibles
and fire-resisting vases* (Class 47)

HONOURABLE MENTION.

KENT, GEORGE, London—*Mixing machines*
(Class 50)

BOWER, GEORGE, St. Neots—*Gas apparatus*
CLIFF, JOSEPH, & Son, Wortley, Leeds—*Fire-
clay retorts*

HUXHAMS & BROWN, Exeter—*Bark mill*
CARR, THOMAS, Bristol—*Patent disintegrator*
WILSON, JAMES, London—*Hydraulic centre valve
for gas purifiers*

BAKER, WILLIAM J., Wakefield—*Improved gas
apparatus*

TYLER, JOHN H., London—*Apparatus used in
tan-yards*

CLASS LII.

Prime Movers, Boilers, Engines, &c.,
specially adapted to the require-
ments of the Exhibition.

SILVER MEDALS.

PORTER, C. T., Manchester—*Horizontal steam
engine*

GALLOWAY, W. & J., & Sons, Manchester—*Boilers and horizontal steam engine*
 DONKIN, B., & Co., London—*Steam pipes and shafting*
 HICK, HARGREAVES, & Co., Bolton—*Horizontal steam engine*
 FOX, WALKER, & Co., Bristol—*Horizontal steam engine*
 SHANKS, A., & SON, London—*Steam crane*
 APLEYBROTHERS, London—*Steam crane*
 RUSSELL, G., & Co., Glasgow—*Steam crane*
 TAYLOR, JAMES, & Co., Birkenhead—*Steam crane*
 STOTHERT & PITT, Bath—*Steam crane*

BRONZE MEDALS.

SHARP, STEWART, & Co. (Limited), Manchester—*Improved 'Giffard' injector*
 APLEYBROTHERS, London—*Feeders for boilers*

CLASS LIII.

Machines and Apparatus in General.

GOLD MEDAL.

MERRYWEATHER & SONS, London—*Steam fire engines*

SILVER MEDALS.

CARRETT, MARSHALL, & Co., Leeds—*Steam pump*
 DONKIN, B., & Co., London—*Patent horizontal steam engine*
 EADES, W., & SON, Birmingham—*Patent pulley blocks*
 GLOVER, G., & Co., London—*Patent dry gas meters, national standard gasometer*
 GLOVER, THOS., London—*Dry gas meters*
 GWYNNE, & Co., London—*Centrifugal pump*
 LLOYD, CHARLES, London—*Blow fan*
 POOLEY, H., & SONS, Liverpool—*Automatic grain-scale* (Class 63)
 READING IRON WORKS, Reading—*Steam engine* (Class 48)
 SHAND, MASON, & Co., London—*Steam fire engine*
 TANGYE BROTHERS, Birmingham—*Machine for lifting, pulley tackle*
 WESTON, T. A., Birmingham—*Hoisting apparatus*

BRONZE MEDALS.

BAINES, W. N., Glasgow—*Brass fittings for steam engines and boilers*
 ELECTRO-MAGNETIC AND ELECTRO PLATE Co. (Limited), Birmingham—*Electro-motive engine*
 NORTH MOOR FOUNDRY CO., Oldham—*Turbines, centrifugal pumps, fans, etc.*
 DEFRIES, NATHAN, London—*Dry gas meters*
 GAS METER CO., London—*Gas and water meters*
 GREEN, E., & SON, Wakefield—*Fuel economiser for steam boilers*
 KENNEDY'S PATENT WATER METER CO. (Limited), Kilmarnock—*Water meter*
 MARSHALL, SONS, & Co., Gainsborough—*Locomotive machine* (Class 48)
 PAUL, MATTHEW, & Co., Dumbarton—*Steam winch for ship's deck*

ROYAL SOCIETY FOR THE PROTECTION OF LIFE FROM FIRE—*Fire escape*

SUGG, W., London—*Gas meter* (Class 24)

WEST & GREGSON, Oldham—*Gas and water meters*

WILLIAMSON BROTHERS, Kendal—*Ventilator*

HONOURABLE MENTION.

BASTIER, JEAN U., London—*Patent chain pump*
 BERNAYS, J., London—*Improved patent centrifugal pump*

CAMPBELL, S., Canada—*Belts for machinery*
 LONDON & WESTMINSTER METER CO., London—*Water and gas meters*

DENISSON—*Pulley, weighing machine*

DEWRANCE, J., & Co., London—*Pressure gauge*
 DUCKAM, H. A. F., London—*Gas meter* (Class 24)

HILL, J. C., & Co., Newport—*Rotary steam engine*

LAMBERT, T., & SONS, London—*Fittings for pumps and valves*

LEONI, SIGISMUND, London—*Taps*

MACLAREN, J. C., Canada—*Belts*

NEWTON & BRADDOCK, Oldham—*Dry gas meter*

SWANN, J. R., Edinburgh—*Patent safety-valve for steam boilers*

THOMSON, R. W., Edinburgh—*Differential rotary steam engine*

WARNE, T., & Co., London—*India-rubber fittings* (Class 44)

CO-OPÉRATEURS.

SILVER MEDAL.

FOWKE, CAPT., R.E. (the late)—*Fire engine*

BRONZE MEDAL.

WILKINSON, GEORGE, Lincoln, foreman, Clayton & Shuttleworth, & Co.

CLASS LIV.

Machine Tools.

GRAND PRIX.

WHITWORTH CO. (Limited), Manchester—*Machine tools*

GOLD MEDALS.

SHARP, STEWART, & Co. (Limited), Manchester—*Workshop tools*

SHEPHERD, HILL, & Co., Hunslet—*Self-acting machine tools*

SILVER MEDALS.

DAVIES, D., Crumlin—*Steam striker*

THWAITES & CARBUTT, Bradford—*Steam hammers*

WORSSAM, SAMUEL, & Co., London—*Wood-working machine*

DE BERGUE, C., & Co., London—*Punching and shearing machines*

TANNETT, WALKER, & Co., Leeds—*Steam hammer*

BRONZE MEDALS.

NEILSON BROTHERS, Glasgow—*Patent radial drill*

POWIS, JAMES, & Co., London—*Wood-working machines*

MASSEY, B. & S., Manchester—*Steam hammer and steam oliver*

POWIS, C., & Co., London—*Saw mill machinery*
 WHITEHEAD, JOHN, Preston — *Brick-making machine* (Class 50)
 ROBINSON, T., & SON, Rochdale—*Wood-working machinery*
 BASS, J. G., & Co., Workington—*Nail forging machine*

HONOURABLE MENTION.

EASTERBROOK & ALLCARD, Sheffield—*Engineers' hand tools*
 SKETCHLEY, WILLIAM, Weymouth—*Wood-cutting machine*
 RHODES, J., & SONS, Wakefield—*Machine tools*

CLASS LV.

Apparatus and Processes used in Spinning and Rope-making.

GOLD MEDALS.

LAWSON, S., & SONS, Leeds—*Flax spinning machinery*
 PLATT, BROS., & Co., Oldham—*Cotton spinning machinery*

SILVER MEDALS.

WREN & HOPKINSON, Manchester—*Machines for winding*
 COMBE, J., & Co., Belfast—*Flax machinery*
 BROOK, J., & BROTHERS, Huddersfield—*Machine for winding sewing cotton*
 HORSEFALL, WM., Manchester—*Cards and patent card grinder*
 SMITH, JOHN & SAMUEL, Keighley — *Looms* (Class 56)

BRONZE MEDALS.

BOOTH, H., & Co., Preston—*Spindles and flyers*
 DIXON, J., & SONS, Steeton—*Keys, treenails, bobbins, rollers, &c.*
 IRVIN & SELLERS, Preston—*Detached pieces of spinning and weaving machinery, shuttles, bobbins, etc.* (Class 56)
 LEONI, SIGISMUND, London—*Spinning machine*
 WATKINS, T., Bradford—*Porcelain spinning guides, washers, &c.*

HONOURABLE MENTION.

HODGKIN, JOHN E., West Derby—*Flax breaking and scutching machinery*
 MALLINSON, KNAPTON, & Co., Wortley—*Card clothing*

CO-OPÉRATEUR.

BRONZE MEDAL.

FITTON, E. G., Leeds—*Inventor of a movement applicable to carding at S. Lawson & Sons' factory*

CLASS LVI.

Apparatus and Processes used in Weaving.

GOLD MEDAL.

HOWARD & BULLOUGH, Accrington—*Weaving looms* (Class 55)

LEEMING, J., & SONS, Bradford—*Power looms*
 HODGSON, G., Bradford—*Looms*

SILVER MEDALS.

KEIGHLEY, J., & Co., Bradford—*Looms for weaving worsted*
 PARKER, C., & SON, Dundee—*Weaving machinery*
 HATTERSLEY, G., & SONS, Keighley—*Power looms*
 SMITH, W., & BROTHERS, Heywood—*Looms and dressing machines*
 HALL, ROBERT, Bury—*Power looms*

BRONZE MEDALS.

FERRABEE, JAMES, Brinscombe — *Bobbin-making machine* (Class 55)
 SOWDEN & STEPHENSON, Bradford — *Power looms*
 COOK & HACKING, Bury—*Looms*
 URQUHART, LINDSAY, & Co., Dundee—*Patent power loom*

HONOURABLE MENTION.

INGHAM, J., & SONS, Thornton—*Shuttles*
 SALTER, SAMUEL, & Co., Market Drayton — *Portable steam shrinking machine*

CLASS LVII.

Apparatus and Processes for Sewing and Making-up Clothing.

SILVER MEDALS.

THOMAS, W. F., & Co., London—*Sewing machines*
 WANZER SEWING MACHINE Co., London—*Sewing machines*

BRONZE MEDALS.

SIMPSON, R. E., & Co., London—*Sewing machines*
 EUROPEAN SEWING MACHINE Co., Coventry—*Sewing machines*
 WILSON, NEWTON, & Co., London—*Sewing machines*

HONOURABLE MENTION.

PITT, BROTHERS, Cleckheaton—*Sewing machines*
 CLEMENTS, JAMES M., Birmingham—*Machines for working button holes, sail making, etc.*
 ALEXANDRA SEWING MACHINE Co., London—*Sewing machine*
 IRWIN, C., & Co., Canada—*Sewing machines*
 REED & CHILDS, Canada—*Boot-trees*

CLASS LVIII.

Apparatus and Processes used in the Manufacture of Furniture and Objects for Dwellings.

No award.

CLASS LIX.

Apparatus and Processes used in Paper-making, Dyeing, and Printing.

SILVER MEDAL.

DONKIN, B., & Co., London—*Paper making machinery*

BRONZE MEDAL.

ROBINSON, J., & Co., Salford—*Machine for glazing calico and linen*

HONOURABLE MENTION.

STONES, M. V., London—*Wires for paper-making*

BOISSONNAULT, N. F., Canada—*Printing frame*

CLASS LX.

Machines, Instruments, and Processes used in various Works.

No award.

CLASS LXI.

Carriages and Wheelwrights' Work.

HORS CONCOURS.

HOOPER & Co. (Mr. G. N. Hooper, Vice-President and Reporter of the Jury), London—*Carriages*

GOLD MEDAL.

PETERS, T., & SONS, London—*Carriages*

SILVER MEDALS.

LAURIE & MARNER, London—*Carriages*

WYBURN & Co., London—*Carriages*

COLE, WM., London—*Carriages*

MORGAN, E. & G. H., London—*Patent headed carriages*

MASON, W. H., London—*Carriages*

ALDEBERT, ISAAC, London—*Carriages*

ROCK & SON, Hastings—*Automatic carriages*

WARD, J., London—*Invalid carriages*

HOLMES, H. & A., Derby—*Elliptic spring carriages*

WOODALL, J., & SONS, London—*Carriages*

COCKSHOOT, J., JUN., Manchester—*Improved Barouche*

BRONZE MEDALS.

FULLER, J. & A., Bath—*Carriages*

STAREY, T. R., Nottingham—*Carriages*

IVALL & LARGE, London—*Carriage*

HUTTON, J., & SONS, Dublin—*Sociable and Irish car*

THORN, W. & F., London—*Light carriages*

WINDOVER, C. S., London—*Carriage*

MULLINER, H., Leamington—*Carriages*

MCNAUGHT & SMITH, Worcester—*Barouche*

MULLINER, F., Northampton and London—*Carriages*

EVANS, JAMES, Liverpool—*Drag with patent springs*

OFFORD, J. & R., London—*Carriages*

HONOURABLE MENTION.

COOPER, London—*Carriages*

DAVIES & SON, London—*Carriages*

DE WOLFE, J. M., Nova Scotia—*Carriages*

O'BRIEN, Nova Scotia—*Carriages*

STAR MANUFACTURING Co., Nova Scotia—*Axle-trees*

THE MAHARAJAH HOLKAR, Bengal—*Native carriages*

CO-OPÉRATEURS.

BRONZE MEDAL.

LAKE, J. P., London, foreman, Messrs. Hooper & Co.'s

HONOURABLE MENTION.

BOLT, W., London, chief bodymaker, &c., Messrs. Hooper & Co.'s

HEWITT, W., London, chief painter, Messrs. Hooper & Co.'s

MCGRATH, T., London, foreman, Messrs. Peters & Sons'

BOLTON, J. chief painter, Messrs. Peters & Sons'

LEADER, MORGAN J., London, at Messrs. Laurie & Marner's

FRIFT, W., London, chief bodymaker, Messrs. Wyburn & Co.'s

CLASS LXII.

Harness and Saddlery.

SILVER MEDALS.

SWAINE & ADENEY, London—*Whips and canes*

HAYNES & SON, London—*Saddle trees*

BRONZE MEDALS.

SHAMMON, W., Birmingham—*Whips, bridles, and bits*

MARTIN, W. H., London—*Whips and canes*

HAMPSON, J., & Co., Walsall—*Bits, stirrups, and spurs*

BLISS, W., London—*Saddlery and horse-clothing*

HONOURABLE MENTION.

COLLECTION FROM BOMBAY AND BENGAL—*Camel saddles and embroidered harness*

ALDRED, THOMAS, London—*Whips and canes*

JASSMANN, L., London—*Saddles and harness*

ELLAM, B., London—*Harness, saddlery, and whips*

CUFF & SONS, London—*Saddlery and harness*

HEAD, JOHN, London—*Saddlery and harness*

MCCRACKEN, A., Birmingham—*Saddlery*

BLACKWELL, S., London—*Saddlery and harness*

CLASS LXIII.

Railway Apparatus.

HORS CONCOURS.

POSTMASTER-GENERAL, London—*Apparatus, &c., for effecting exchange of despatches whilst the train is in motion (Class 60)*

GOLD MEDALS.

KITSON & Co., Leeds—*Locomotive*
 STEPHENSON, R., & Co., Newcastle-on-Tyne—*Locomotive*
 SAXBY & FARMER, London—*Railway points and signals*

SILVER MEDALS.

LILLESHELL COMPANY, Shiffhall—*Locomotive*
 POOLEY, H., & SONS, Liverpool—*Weighing-machines*
 TURTON, THOMAS, & SONS, Sheffield—*Springs and buffers*

BRONZE MEDALS.

GORDON, ALICE ISABEL, London—*Communication between passengers and guard and between trains in motion and stations*
 PREECE, W. H., Southampton—*Electric signals*
 SPENCER, J., & SONS, Newcastle-on-Tyne—*Railway springs and buffers*
 LIVESEY, E., & EDWARDS, London—*Signal models*

HONOURABLE MENTION.

DERING, G. E., Welwyn—*Improved permanent ways for railways*
 HUGHES, H., & Co., Loughborough—*Small tank locomotive*
 RUSTON, PROCTOR, & Co., Lincoln—*Locomotive* (Class 52)
 FAIRLIE, ROBERT F., London—*Patent duplex locomotives*
 GRAND TRUNK RAILWAY OF CANADA—*Model wagon*

CLASS LXIV.

Telegraphic Apparatus and Processes.

HORS CONCOURS.

SIEMENS BROTHERS, London (Mr. Siemens, member of the Jury)

GRAND PRIX.

FIELD, CYRUS, and the ANGLO-AMERICAN TRANSATLANTIC CABLE COMPANIES, United States and Great Britain—*The Trans-Atlantic cable*

GOLD MEDAL.

HOOPER, W., London—*Telegraph cables*

SILVER MEDAL.

HENLEY, W. T., London—*Telegraph cables*

HONOURABLE MENTION.

NICOLL, D., London—*Wires and cables*

CO-OPÉRATEUR.

BRONZE MEDAL.

MITTEL, HAUSEN, London, manager, Messrs. Siemens Brothers'

CLASS LXV.

Civil Engineering, Public Works, and Architecture.

HORS CONCOURS.

TRINITY HOUSE CORPORATION—*Lighthouses* (Class 66)

COLONEL SCOTT, R.E. (member of the Jury)—*Central Hall of Arts and Sciences*
 MALLET, ROBERT (member of the Jury), London—*Patent buckled iron plates*

GOLD MEDALS.

MINTON, HOLLINS, & Co., Stoke-upon-Trent—*Tiles, mosaics, &c.*
 CHANCE BROTHERS & Co., Birmingham—*Light-house apparatus* (Class 66)

SILVER MEDALS.

BLANCHARD, M. H., London—*Terra cotta*
 PULHAM, JAS., Broxbourne—*Terra cotta* (Mulready's Tomb)
 CHUBB & SON, London—*Locks and safes*
 HOBBS, HART, & Co., London—*Locks and safes*
 CLIFF, JOSEPH, & SON, Wortley, Leeds—*Terra cotta*
 MAW & Co., Benthall—*Encaustic and majolica tiles*
 BLASHFIELD, J. M., Stamford—*Terra cotta*
 DOULTON, H., & Co., London—*Drain-pipes, chimney-pots, &c.*
 COLE, HENRY, C.B., London—*Specimens of enamelled fire-proof ceilings*
 PEAKE, THOMAS, Tunstall—*Tiles*
 JENNINGS, GEORGE, London—*Sanitary appliances*
 WHITE & BROTHERS, London—*Keene's cement*

BRONZE MEDALS.

ROBINSON, A. A., London—*Slates*
 GALLICHAH & Co., Leigh—*Drain pipes and stoneware*
 BROOKE, EDWARD, Huddersfield—*Sanitary pipes, chimney-tops, &c.*
 EASSIE, W., & Co., Gloucester—*Steam pile-driver*
 CLARK & Co., London—*Metal shutter*
 RANSOME, F., London—*Artificial stone*
 WELSH SLATE CO., London—*Slates*
 SISSONS & WHITE, Hull—*Steam pile-driver*
 COLTHURST, SYMONS, & Co., Bridgewater—*Roofing tiles*
 CHATWOOD, S., Bolton—*Safes*
 GREAVES, J. W., Portmadoc—*Roofing slates*
 NORMAN, R. & N., Hurstpierpoint—*Earthenware*
 GOTTO, F., Leighton Buzzard—*Cast-iron self-discharging fluvia trap*
 MACDONALD, FIELD, & Co., Aberdeen—*Stone*

HONOURABLE MENTION.

ROOKE, G., London—*Marble mosaic*
 SANDHAM, HENRY, London—*Coloured cements*
 WILLOUGHBY DE ERESBY, LORD, Little Bytham—*Plain adamantine clinkers*

CO-OPÉRATEUR.

SILVER MEDAL.

HOLMES, F. HALE, London—*Fog-horn*

CLASS LXVI.

Navigation, Marine Engines, Life Boats, &c.

HORS CONCOURS.

ADMIRALTY, London—*Iron-clad fleet, interior arrangement of ships*

TRINITY HOUSE CORPORATION—*Organisation of the system of lighting, by beacons, &c., on the coasts of England*

GRANDS PRIX.

ROYAL NATIONAL LIFE BOAT INSTITUTION—*Organisation of the Society, and appliances for saving life*

NAPIER, R., & SONS, Glasgow—*Models of ships*

PENN, J., & SON, Greenwich—*Marine steam engines*

GOLD MEDALS.

LAIRD, BROS., Birkenhead—*Models of ships*

MAUDSLAY, SONS, & FIELD, London—*Models of marine steam engines*

THAMES IRON WORKS COMPANY (Limited), London—*Models of ships*

RANDOLPH, ELDER, & CO., Glasgow—*Models of ships and machinery*

SAMUDA, BROTHERS, London—*Models of ships*

HUMPHRYS & TENNANT, London—*Models of marine steam engines*

CLARK, EDWIN, London—*Model of hydraulic lift graving dock*

SILVER MEDALS.

COLOMB, COMMANDER P. H., R.N., London—*Warning lights for preventing collisions at sea*

PALMER'S SHIP BUILDING AND IRON COMPANY (Limited), Newcastle-on-Tyne—*Models of steamers*

HALSTED, REAR ADMIRAL E. P., London—*Models of turret ships*

RAVENHILL, HODGSON, & CO., London—*Marine steam engines*

RENNIE, J. & G., London—*Marine steam engines and models of ships and docks*

MITCHELL, C., & CO., Newcastle-on-Tyne—*Models of ships*

DENNY, BROTHERS, Dumbarton—*Models of ships*

WHITE, J. S., East Cowes—*Models of yachts*

GISBORNE, F. N., London—*Electric and pneumatic signals*

MARTIN, CLAUDE, Newcastle-on-Tyne—*Patent self-canting anchor*

BRONZE MEDALS.

BOLTON, CAPTAIN FRANK, London—*Telegraphic signals*

HARFIELD & CO., London—*Cast iron windlass*

OSWALD, & CO., Sunderland—*Models of steamers*

RICHARDSON, DUCK, & CO., Stockton-on-Tees—*Models of ships*

GOURLAY, BROTHERS, & CO., Dundee—*Models of ships*

WARD, CAPTAIN J. R., R.N., London—*Life belts*

HURST, CAPTAIN, J. W., New Cross—*Double pontoon life raft*

CLIFFORD, C., London—*System of lowering boats*

HARVEY, J., & CO., Wivenhoe—*Models of yachts*

PAUL, MATTHEW, & CO., Dumbarton—*Steam capstan*

INGLIS, A. & J., Glasgow—*Models of ships*

TAYLOR, J., & CO., Birkenhead—*Model of a steam windlass*

HUXHAMS & BROWN, Exeter—*Steam capstan*

HONOURABLE MENTION.

TUCKER, J. SCOTT, London—*Balance rudder fastenings*

LUMLEY, CAPTAIN H., London—*Model of Lumley rudder*

DAFT, T. B., London—*Sheathing for iron-clad ships*

HAY, W. J., Southsea—*Varnish for ships' bottoms*

WALKER, W. H., Liverpool—*Models of ships*

RITCHIE, J. H., JUN., London—*Models of ships*

WISHART, THOMAS, Glasgow—*Models of ships*

WALKER, T. & SON, Birmingham—*Log line and mechanical sounder (Class 53)*

CO-OPÉRATEURS.

SILVER MEDAL.

DOUGLAS, JAMES, chief engineer, Trinity House

NISBET, CAPTAIN, engineer, Trinity House

MAKROW, G., naval architect, Trinity House

BRONZE MEDALS.

ROGERS, foreman of carpenters, Trinity House

PIDDINGTON, H., master builder, Trinity House

NATION, JAMES, chief workman, Mr. Penn's, Greenwich

CORNISH, HARRY JOHN, engineer at Lloyd's

LOYD'S REGISTER OF SHIPPING, London—*Construction and drawings of ships*

GROUP VII.

Food (Fresh or Preserved) in various States of Preparation.

CLASS LXVII.

Cereals and other eatable Farinaceous Products, and the Products derived from them.

GOLD MEDAL.

BELL, A., South Australia—*Wheat*

SILVER MEDALS.

BERGER, SAMUEL, & CO., Bromley-by-Bow—*Rice starch*

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, & CO. (Limited), Basingstoke—*Cereals*

RECKITT, I., & SONS, London—*Rice starch*

JONES, ORLANDO, & CO., London—*Rice starch*

COLMAN, J. & J., London—*Rice starch*

BICKLE, J. B., Canada—*Wheat flour*

ROSE, LAWRENCE, Canada—*Flour from buck-wheat and maize*

MCLEAN, Canada—*Flour from oats*

LUKES, W., Canada—*Flour*

ST. ANNE'S AGRICULTURAL SCHOOL, Canada—*Collection of products and cereals*

LOGAN, SIR W., Montreal—*Cereals*

GOVERNMENT OF BENGAL

BRONZE MEDALS.

MITCHELL, J., Canada—*Corn*
 BARCLAY, FRANCIS, Canada—*Corn*
 PATERSON, JOHN, Canada—*Barley*
 BROWN & Co., India—*Cereals, wheat flour and rice flour*
 MARTIN, CAPTAIN E., Penang — *Cereals, wheat flour and rice flour*
 SUTTON & SONS, Reading—*Wheat* (Classes 84 and 85)
 CAPE OF GOOD HOPE AGRICULTURAL SOCIETY—*Collection*
 CAHAGNET, ÉMILE, Mauritius—*Arrowroot*
 SOCIETÀ ECONOMICO-AGRARIA, Malta—*Cereals and other eatable farinaceous products*
 BENGAL GOVERNMENT—*Cereals, wheat flour and rice flour*
 NOVA SCOTIAN COMMISSION—*Cereals*
 QUEENSLAND COMMISSION—*Cereals*
 LODER, G. T., New South Wales—*Cereals*
 MACARTHUR, J. & W., New South Wales—*Cereals*
 TRAPITT, New South Wales—*Cereals*
 FRANKLAND, G. J., New South Wales—*Starch*
 SHIER, DAVID, British Guiana—*Arrowroot*
 McLEAN, Mrs., Barbados—*Starch and arrowroot*
 COWIE, D., St. Vincent—*Starch and arrowroot*
 LABORDE, E., St. Vincent—*Starch and arrowroot*
 STEWART, Canada—*Cereals*
 MALDRUM, J., Canada—*Wheat*
 PEB, Canada—*Rye*
 BOIS, CLEMENT, Canada—*Rye*
 BERGICOURT, T., Mauritius—*Arrowroot* (Class 72)
 MELLER, DR., Mauritius—*Arrowroot*
 ALISON & BAKER, Natal—*Corn*
 LANDSBERG, BARNES, & ROBSON, Natal—*Corn and maize*
 GODDEW, BUTTERY, & DAVIDSON, Natal—*Arrowroot*
 SARBOTON, Natal—*Maize flour*
 MADRAS GOVERNMENT—*Arrowroot and tapioca*
 BOMBAY GOVERNMENT—*Collection*
 BEGUM, Bhothal—*Collection*
 MAHARAJAH BAHADA—*Collection*
 POLLARD, MAJOR, East Indies—*Arrowroot and tapioca*
 CHAMP, T., Brisbane—*Arrowroot*
 MACANDREW, D., Victoria—*Barley*
 COFFEE, J., Victoria—*Corn*
 THOMPSON & Co., Victoria—*Maize*
 WADDEL, J., South Australia
 HACKETT, T. W., South Australia—*Corn*
 SMITH, J., South Australia—*Wheat*
 DAWSON & SONS, South Australia—*Flour*
 MOORE, CHARLES, New South Wales—*Starch*
 MOSS, H., New South Wales—*Starch*
 HILL, E. S., New South Wales—*Starch*
 RUDDER, E. W., New South Wales—*Starch*
 HETHERINGTON, New South Wales—*Starch*
 MERRIMAND, British Guiana—*Arrowroot*
 JOHNSON, British Guiana—*Arrowroot*
 SIMMONDS, E., Lagos—*Starch*
 BUCHANAN, R., Victoria—*Wheat and oats*

ORLEBAR, J., Victoria—*Wheat and oats*
 WARRENHEIP'S DISTILLERY Co., Victoria —
Barley and malt
 GOUGH & Co., Victoria—*Barley, malting*
 WILSON, WILLIAM, Victoria—*Corn*
 DOCKER, G. F., Victoria—*Wheat*

HONOURABLE MENTION.

COLMAN, J. & J.,† London—*Rice starch*
 BARTHOLOMEW, P., Canada—*Oats*
 VAUGHAN, W. H., Canada—*Cereals*
 CARON, E., Canada—*Wheat*
 BROWNIE, Canada—*Wheat*
 VINCENT, R. B., Victoria—*Barley*
 ALLEN, Mrs., Victoria—*Oats*

CLASS LXVIII.

Bread and Pastry.

SILVER MEDALS.

HUNTLEY & PALMER, Reading — *Plain and fancy biscuits*
 PEEK, FREAN, & Co., London—*Fancy and navy biscuits*

HONOURABLE MENTION.

NOVA SCOTIAN COMMISSION—*Navy biscuits and pastry*

CLASS LXIX.

Fatty Substances used in Food.—Milk and Eggs.

HONOURABLE MENTION.

LONGLEY, Nova Scotia—*Cheese*

CLASS LXX.

Meat and Fish.

GOLD MEDAL.

COMMISSION OF NOVA SCOTIA — *Fish and crustacea*

SILVER MEDALS.

MORTON, JOHN THOS., London—*Various preserves*
 CROSSE & BLACKWELL, London—*Various preserves* (Class 72)

BRONZE MEDALS.

BURGESS, JOHN & SON, London—*Various preserves* (Class 72)
 DUNCAN & Co., Southwick—*Various preserves*
 BARNES, BROWN, & BAKER, Natal—*Preserved beef*
 SMITH & CLARK, Melbourne—*Preserved meat*
 AUSTRALIAN MEAT Co., Sydney—*Preserved meat*
 WHITEHEAD & Co., Sydney—*Extract from meat*
 BELL, Sydney—*Extract from meat*
 HONOURABLE MENTION.
 TILLEY, W., Newfoundland—*Preserved fish*
 BLACKLAND & Co., Melbourne—*Salt meat*

CLASS LXXI.

Vegetables and Fruits.

SILVER MEDAL.

CROSSE & BLACKWELL, London—*Preserved fruit of all kinds* (Class 72)

BRONZE MEDALS.

BATTY & Co., London—*Various pickles and preserves* (Class 72)

BURGESS, JOHN, & SON, London—*Collection of preserved fruits and vegetables* (Class 72)

CLASS LXXII.

Condiments and Stimulants—Sugar and Confectionery.

GOLD MEDALS.

ICERY, E., Mauritius—*Sugar*

WIEHÉ, HON. C., & Co., Mauritius—*Sugar*

PITOT, HON. H., Mauritius—*Sugar*

EAST INDIES—

District of Assam

District of Cachar

District of Dehra-Dhoon

District of Kumaon

District of Punjab

District of Neilgherry Hills

} *Teas*

MUNCHIN, F. J. V., Madras—*Sugar*

SILVER MEDALS.

THE NORTHWICH SALT CHAMBER OF COMMERCE—*Salt*

FRY, J. S., & SONS, Bristol—*Chocolate*

ANTELME, HON. C., Mauritius—*Sugar and vanilla*

BELZIM & HAREL, Mauritius—*Sugar*

HEWITSON, W., Mauritius—*Sugar*

COLMAN, J. & J., London—*Mustard*

SANDBRACHER TINNÉ ANNA CATERINA PLANTATION—*Sugar*

CAREW & Co., Bengal—*Sugar*

BRONZE MEDALS.

KEEN, ROBINSON, BELVILLE, & Co., London—*Mustard*

CROSSE & BLACKWELL, London—*Preserves and condiments*

PORTAL, H., Mauritius—*Sugar*

BARLOW, H., Mauritius—*Sugar*

D'ARIFAT BROS. & RAY, A., Mauritius—*Sugar*

CLEMENTON, H., Guiana—*Crude sugar*

WENNING, HILL, & WARE, Montreal—*Liquor and syrups*

PIGEON, N., Montreal—*Sugar of maize*

BATTY & Co., London—*Sauces*

VOLSTIEOT, J. P., Capetown—*Preserved fruits*

BERNARD, London—*Cocoa*

OUCHTERLONY, J., Neilgherry, India—*Coffee*

McFARLANE, Shevaroy Hills, India—*Coffee*
COCQ, C. H. R., Tinnevely, India—*Coffee*
MAYLOR, W., Wynaad, India—*Coffee*
TAYLOR, CAPTAIN, Coorg, India—*Coffee*
ADDERLEY, Tinnevely, India—*Coffee*
SCHOOLING & Co., London—*Confectionery*

HONOURABLE MENTION.

GATTI BROTHERS, London—*Chocolates*

LAVAUD, JULES, Mauritius—*Liqueurs*

MONVOISIN, P., Mauritius—*Liqueurs*

WIRSING & REYNOLDS, Natal—*Sugars*

BRITISH GUIANA COLONIAL COMPANY—*Sugars*

DANIEL, THOMAS, British Guiana—*Sugars*

THIBAUT, O., Canada—*Maple sugar*

MANN, COL., Penang—*Cloves*

THE DEPUTY SUPERINTENDENT, Mysore—*Sugar*

HAYES, J., India—*Sugar*

BROWN & Co., Penang—*Sugar*

HOGAN, E., Penang—*Coffee*

ADDERLEY, Tinnevely—*Coffee*

McFARLANE, Shevaroy Hills, India—*Coffee*

AGRICULTURAL SOCIETY OF BEAUCE, Canada—*Maple sugar*

BURGESS, JOHN, & SON, London—*Sugars and syrups*

MACKAY, JOHN, Edinburgh—*Essences*

CLASS LXXIII.

Fermented Drinks.

GOLD MEDALS.

ALLSOPP, S., & SONS, Burton-on-Trent—*India pale ale*

BASS & Co., Burton-on-Trent—*India pale ale*

SILVER MEDALS.

CLOETE, J. P., Cape of Good Hope—*Wines*

WYNNDHAM, MESSRS., New South Wales—*Red wines*

AITCHISON, JOHN, & Co., Edinburgh—*Scotch ale*

BALLINGALL & SON, Dundee—*Beer*

BURTON BREWERY COMPANY (Limited), Burton-on-Trent and Paris—*India pale ale*

BRONZE MEDALS.

MERTON, New South Wales—*Muscatel*

BAISLING, South Australia—*Wine of 1863*

RANDALL, D., South Australia—*Shiraz, 1865*

GILLARD, J., South Australia—*Mataro, 1861*

PEAKE, E. J., South Australia—*Verdillo, 1864*

BARBER, S., & Co., British Guiana—*Coloured rum*

VAN REUVEN, S., & Co., Cape of Good Hope—*Wines*

HAUPT & Co., Cape of Good Hope—*Wines*

SEDGWICK, Cape of Good Hope—*Wines*

GADPAILLE, C. H., & Co., Jamaica—*Rum*

CANADIAN VINEYARD Co.

HONOURABLE MENTION.

LIGUORA, New South Wales—*Wine*

CARMICHAEL, G. T. & J. B., New South Wales—*Wine*

LINDEMAN, DR. JOHN, New South Wales—*Red wine*
 COOPER, SIR DANIEL, BART., New South Wales
 —*Collection of wines, Roussillon, 1861*
 FISHER, D., South Australia—*Collection of wines, Roussillon, 1861*
 GREEN, W., South Australia—*Shiraz, 1862*
 PEAKE, E. J., South Australia—*Wine*
 WILSON BROTHERS, South Australia—*Amandale, 1865*
 ROOS, PRAART, Cape of Good Hope—*Wines*
 BAM, H. T., Cape of Good Hope—*Wines*
 ROOS, J., Cape of Good Hope—*Wine*
 GREEN, E. C., Cape of Good Hope—*Wines*
 PEIZER, A., Cape of Good Hope—*Wines*
 BAM, E. H., Cape of Good Hope—*Wines*
 MADRAS LOCAL COMMITTEE—*Arrak*
 HENLEY & SON, London—*Sparkling perry and cider*

GROUP VIII.

Live Stock, and Specimens of Agricultural Buildings.

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Agricultural Apparatus and Processes used in the Cultivation of Fields and Forests; Farm Buildings and Agricultural Works.

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RANSOMES & SIMS, Ipswich—*Agricultural machinery*
 HOWARD, J. & F., Bedford—*Agricultural machinery*
 MARKHAM, CLEMENT R., London—*Introduction and development of the cultivation of the Quinine plant in British India*

GOLD MEDALS WITH OBJECTS OF ART.

GARRETT, R. & SONS, Saxmundham—*Agricultural machinery*
 SMYTH, J. & SONS, Peasenhall—*Drills*

GOLD MEDALS.

MARSHALL, SONS & CO., Gainsborough—*Thrashing machines and steam-engines*
 PICKSLEY, SIMS & CO., Bedford Leigh—*Agricultural machinery*
 JAMESON, JAMES, Laharumpore, India—*Cultivation of tea in British India*

SILVER MEDALS.

CLAYTON, SHUTTLEWORTH & CO., Lincoln—*Thrashing machines*
 BENTALL, E. H., Heybridge Works, Maldon—*Root-cutting machines*
 COLEMAN & MORTON, Chelmsford—*Scarifiers*
 NICHOLSON, W. N., Newark—*Haymaking machine and horse rake*
 AMIES, BARFORD & CO., Peterborough—*Rollers*
 BARRETT—*Horse gear thrashing machine.*
 COULTAS, J. JUN., Grantham—*Drill*

HAYES & SON, Stamford—*Waggon*
 ATMOSPHERIC CHURN COMPANY, London—*Atmospheric churn*
 JAMES, ISAAC, Cheltenham—*Liquid manure cart*
 PACKARD, E., & CO., Ipswich—*Materials used in the manufacture of artificial manures*
 BRONZE MEDALS.
 SAMUELSON & CO., Banbury—*Reaping machine*
 ASHBY & JEFFERY, Stamford—*Haymaking machine*
 MUSGRAVE BROTHERS, Belfast—*Stable-fittings*
 SAYNOR & COOKE, Sheffield—*Tools*
 ALLEN, E. E., London—*Steam-engine*
 BARROWS & CARMICHAEL, Banbury—*Thrashing machine*
 ROBIEY & CO., Lincoln—*Thrashing machine*
 RUSTON, PROCTOR & CO., Lincoln—*Thrashing machine*
 MASSEY, Canada—*Mowing machine*
 PAINCHAUD, DR., Canada—*Horse rake*

HONOURABLE MENTION.

TINCKLER, R., Penrith—*Churn*

CO-OPÉRATEURS.

SILVER MEDALS.

MACARTHUR, SIR WILLIAM, Sydney, New South Wales—*Introduction of the vine into Australia (Class 40)*
 HEAD, JOHN, Ipswich, collaborator of Messrs. Ransomes & Sims

CLASS LXXV.

Horses, Asses, Mules, &c.

SILVER MEDALS.

HOWARD, J., Bedford—*Draught horses (Clydesdale breed)*
 DOLLAR, BROS., London—*Exhibition of horse-shoes (Class 40)*

HONOURABLE MENTION.

STANLEY, FREDERICK T.—*Shoeing materials (Class 40)*

CLASS LXXIX.

Poultry.

GOLD MEDAL.

COOPER, JAMES, Limerick—*Turkeys, geese, and fowls*

BRONZE MEDAL.

WHITMÉE & CO., London—*Incubators*

CLASS LXXX.

Sporting Dogs and Watch Dogs.

SILVER MEDAL.

HOWARD, J., Bedford—*Spaniels, retrievers, greyhounds*

CLASS LXXXI.

Useful Insects.

SILVER MEDALS.

NEIGHBOUR, G. & SONS, London—*Exhibition of different kinds of bee-hives*
VALIQUEST, St. Hilaire, Canada—*Beehive*

BRONZE MEDALS.

PETTITT, W. J., Dover—*Bee-hive*.
LOVEY, E., Perran Wharf, Cornwall—*Bee-hive*

GROUP IX.

Plants, and Specimens of Horticultural Works.

CLASS LXXXIII.

Hothouses and Horticultural Apparatus.

SILVER MEDAL.

SHANKS, A. & SON, Arbroath—*Lawn mowing machine*

BRONZE MEDAL.

SAYNOR & COOKE, Sheffield—*Garden tools*

HONOURABLE MENTION.

AMIES, BARFORD & Co., Peterborough—*Lawn roller*

PICKSLEY, SIMS & Co., Bedford Leigh—*Lawn roller*

WELLS, C. T., London—*Construction of hothouses*

CLASS LXXXIV.

Flowers and Ornamental Plants.

GRAND PRIX.

VEITCH, J. & SON, London—*New and ornamental plants, conifers*

SILVER MEDAL.

CARTER, J. & Co., London—*Turf*

BRONZE MEDAL.

DOWNIE, LAIRD & LAING, London—*Pansies*

CLASS LXXXV.

Vegetables.

SILVER MEDAL.

SUTTON & SONS, Reading—*Garden seeds*

CLASS LXXXVIII.

Hothouse Plants.

SILVER MEDAL.

MULLER, F., Melbourne, Australia—*Balanium antarcticum*

HONOURABLE MENTION.

BULL, WILLIAM, Chelsea—*Orchids*

GROUP X.

Articles exhibited with the special object of Improving the Physical and Moral Condition of the People.

CLASS LXXXIX.

Apparatus and Methods used in the Teaching of Children.

SILVER MEDALS.

SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE, London—*Various books*

SUNDAY SCHOOL UNION, London—*Educational works*

HOME & COLONIAL SCHOOL SOCIETY, London—*Apparatus, books, &c.*

CHAUVEAU, P. J. O., Department of Public Instruction, Montreal—*Educational publications*

HULLAH, J., London—*Works on music*

BRONZE MEDALS.

NATIONAL ASYLUM FOR IDIOTS—*Excellence of the Institution (Class 91)*

OLIVER & BOYD, Edinburgh—*Educational works*

WILLIAMS, ALFRED, Windsor—*The Windsor school desk*

HONOURABLE MENTION.

STEVENS, WM., London—*Dried flowers*

ST. ANNE'S SCHOOL, Canada—*Plan in relief*

CLASS XC.

Libraries and Apparatus used in Instruction of Adults at Home, in the Workshop, or in Schools and Colleges.

GOLD MEDALS.

BOOK HAWKING UNION, London—*Reports and documents*

SOUTH KENSINGTON SCHOOL OF ART—*System and models for designs*

SILVER MEDAL.

DEPARTMENT FOR AGRICULTURE, ARTS, AND STATISTICS, Canada—*Reports and documents relative to the College at Quebec and the School of Agriculture at Santa Anna*

HONOURABLE MENTION.

CRONMIRE, J. M. & H., London—*Mathematical and drawing instruments (Class 89)*

WRIGHT, BRYCE, London—*Collection of natural history (Class 89)*

CO-OPÉRATEURS.

SILVER MEDAL.

BURCHETT, R., South Kensington, head master of the school of art

HONOURABLE MENTION.

RAWLE, W., pupil, South Kensington school of art—*Designs*

BOONE, J. S., pupil, South Kensington school of art—*Designs*

CLASS XCI.

Furniture, Clothing, and Food, prepared from all sources, remarkable for useful qualities combined with cheapness.

BRONZE MEDAL.

JACQUES & HAY, Toronto—*Furniture in wood*

HONOURABLE MENTION.

MCGARVY, Montreal—*Chairs and furniture in wood*

TAYLER, HARRY, & Co., London—*Knifeboards*

CLASS XCII.

Specimens of Costumes of Different Countries.

No award.

CLASS XCIII.

Examples of Dwellings characterised by Cheapness combined with the Conditions necessary for Health and Comfort.

GOLD MEDALS.

METROPOLITAN ASSOCIATION FOR IMPROVING THE DWELLINGS OF THE INDUSTRIAL CLASSES, London—*Models of dwellings*

SOCIETY FOR IMPROVING THE CONDITION OF THE LABOURING CLASSES, London—*Drawings of model lodging-houses and renovated dwellings*

BRONZE MEDAL.

DIGBY, LORD, Ireland—*Cottage for agricultural labourers*

CO-OPÉRATEUR.

SILVER MEDAL.

CHADWICK, E., C.B., London, author of a report on which was founded the movement in England to improve the dwellings of the industrial classes

GATLIFF, CHARLES, secretary to the Metropolitan Association for Improving the Dwellings of the Industrial Classes, London

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Barrett	74	29	Bettridge, John, & Co.	7	4
Barrington, G.	38	14	" " " "	14 & 15	7
Barrow Hematite Steel Co.	40	15	Betts & Co.	40	15
Barrows & Carmichael	74	29	Beuley, N., & Sons	7	4
Barry & Nephew	43	18	Bevington & Morris	42	17
" Munick J.	43	18	" & Sons	10	5
" E. M., A.R.A.	4	3	Bewicke & Vincent	44	18
Bartholomew, P.	67	27	Bhaugulpore	34	13
Bartleet, Wm., & Sons	40	15	Bhowanis Hanker Harivulubh	14 & 15	7
" " " "	49	21	" " " "	26	10
Barton, William	24	10	Bhurtapore	34	13
Bastier, Jean U.	53	22	Bickford, Smith, & Co.	47	20
Bass, J. G., & Co.	54	23	Bickle, J. B.	67	26
Bass & Co.	73	28	Biddel, G.	48	20
Batley Chamber of Commerce	30	11	Biddle, Arthur Cumming	33	13
" " " "	72	28	" Mr. Daniel	33	13
Batty & Co.	71	28	" & Haywards	33	13
" " " "	72	28	Bigelow, J. T., & Co.	40	16
Baugh, Benjamin	40	15	Billings	40	16
Bawden, J.	43	18	Bingley & De Becker	34	13
" P.	50	21	Binns, Godfrey, & Son	30	12
Bawool, Rajor	8	5	Birchall, J. D., & Co.	30	12
Bax, Clara	39	14	Birchenough, J.	31	12
Bayley, N. P.	43	17	Birdwood, Dr.	44	16
" Thomas	46	19	Birmingham and North of England Patent Forged Nail and Rivet Company	40	16
Bazin, Miss	18	8	Birmingham Patent Iron and Brass Tube Company	40	15
Bazley, Henry, & Co.	27	10	Birmingham Small Arms Company	37	14
Beard, Ambrose, & Sons	40	15	Bishop	30	12
Beasley, Frederick, Jun.	9	5	Bishops Waltham Clay Co.	17	8
Beau, Adolphe	9	5	Blackie, George	23	9
Beaumont, Capt. R. E.	47	20	" John, & Son	7	4
Beauce Agricultural Society	72	28	Blackland & Co.	70	27
Beck, R. & J.	12	6	Blackwell, S.	62	24
Becker, Carl	12	6	Blaenavon Company	40	15
Bedford, F.	9	5	Blanchard, M. H.	65	25
Begum (Bhoptal)	67	27	" V.	9	5
Belbridge, W. C.	6	3	Blashfield, J. M.	65	25
Belfast Chamber of Commerce	28	11	Bliss, William, & Son	30	11
Bell	70	27	" " " "	32	12
" A.	67	26	" W. " " "	62	24
" & Daldy	7	4	Bodringalt Coal Company	40	15
" John	43	17	Bois, Clement	67	27
Bellows, John	6	4	Boissonault, N. F.	59	24
Belzim & Harel	72	27	Bolt, W.	61	24
Bengal, The Assistant De- puty	34	13	Bolton, Captain Frank	66	26
" Government of	67	26, 27	" J.	61	24
" the Kotal Chief of	34	13	Bombay, Government of	43	17
Benham & Sons	14 & 15	7	" " " "	67	27
"	24	10	Boone, J. S.	90	31
"	40	16	Book Hawking Union	90	30
Benjamin, J.	42	17	Booth, H., & Co.	55	23
Benson, J. W.	23	9	Borg, P. J.	33	13
Bentall, E. H.	48	20	Bosisto,	41	17
"	74	29	Bouchard, Mrs.	28	11
Berger, Samuel, & Co.	67	26	Bouchette, J.	13	6
Bergicourt, T.	43	18	Boulton, William, & Son	40	15
"	67	27	Bousfield, E.	48	20
Bernard	72	28			
Bernays, Joseph	53	22			
Bessemer, H.	40	16			

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Bowan Dost	8	5	Burton Brewery Company . .	73	28
Bower, George	51	21	Burys & Co.	40	15
Bowley & Co.	35	14	Bush, William John	44	19
Bowling Iron Company . . .	40	15	Bussey, Smith, & Co. . . .	38	14
Bowser, W., & Sons	24	10	Butler & Tanner	6	4
Braby, Frederick, & Co. . . .	40	16	Bwlfa Colliery Company . .	40	15
Bradbury, Evans, & Co. . .	6	3	Byers, A., & Son	30	12
" Wilkinson, & Co.	6	3	Byramjee Furdoonjee . . .	6	4
Bradford Chamber of Commerce	29	11	Cachar	72	28
Bradford, T., & Co.	50	21	Cahagnet, Emile	67	27
Bræarly Bros.	46	20	Caithness, Earl of	11	6
Brigham & Bickerton	6	48	Calderon, P. H., R.A. . . .	1 & 2	3
Brigg & Sons	32	12	Caldesi,	9	5
Briggs, Colonel	9	5	Calley, Samuel	44	19
Brinsmead, John	10	5	Calvert, F. Crace, & Co. . .	44	18
Brinton & Lewis	18	8	Campbell,	43	17
Britannia Rubber and Kamp-tulicon Company	18	8	" S.	53	22
" " " " " " " " " " " "	44	19	Cambrian Flannel Company .	30	12
British Guiana Colonial Company	72	28	Cameron, Mrs.	9	5
British Guiana, Government Commission	41	16	Canada, 'Compagnie des Mines'	40	16
British India	18	8	Canada, Compagnie Anglo-Canadienne	40	16
" " Government of	43	17	Canada, Compagnie des Mines de St. François	40	16
" " " " " " " " " " " "	43	17	Canada, Compagnie de la Rivière Moisiel	40	16
British Seaweed Company . .	44	18	Canada, Compagnie des Salines de Godelich	40	16
Broadwood, John, & Sons . .	10	5	Canada, Department of Works	9	5
Brockedon, William, & Co. . .	7	4	Canada, Department for Agriculture, Arts, and Sciences	90	30
Brogden, John	36	14	Canada, Geological Commission	13	6
Brook, J., & Brothers	55	23	" " " " " " " " " " " "	40	14
Brooke, Edward	65	25	" Groupe des Mines de Bolton	40	16
Brookes & Crookes	20	9	Canada, Groupe des Mines d'Ascott	40	16
Brooks, Vincent	6	3	Canadian Government . . .	14 & 15	7
Brotherton, John, & Co. . . .	40	16	Canadian Vineyard Company	73	28
Brough, Nicholson, & Co. . .	31	12	Canadian Washing Machine and Agricultural Implementation Company .	50	21
Broughton Copper Company .	40	15	Canada (Lower), Chamber of Agriculture of	30	11
Brousseau Brothers	6	4	Canover	43	18
Brown & Co. (India)	67	27	Cape Copper Mining Company	40	16
" " (Penang)	72	28	Cape of Good Hope Agricultural Society	41	17
" & Green	24	10	" " " " " " " " " " " "	43	17
" Brothers (Toronto)	7	4	" " " " " " " " " " " "	43	18
" J.	44	19	" " " " " " " " " " " "	67	27
" John S.	28	11	Carew & Co.	72	28
" J. & H., & Co.	30	11	Carington, Lady	14 & 15	7
" Sir John, & Co.	40	14	Carles Brothers	35	13
" Lawrence	41	17	Carmichael, G. T. & J. B. .	73	28
" W., & May, C. N.	48	20	Caron, E.	67	27
" William, & Co.	7	4	Carr, Isaac, & Co.	30	11
Brownbie,	67	27	" Thomas, & Co.	31	12
Brownfield, W.	17	8	" " " " " " " " " " " "	51	21
Browning, Elijah	35	13	Carrett, Marshall, & Co. .	47	20
Brownrigg, Thomas M.	9	5	Carson & Toone	50	21
Brunet, l'Abbé	41	16			
Bryceson, Brothers, & Co. . .	10	5			
Buchanan, James	49	21			
Buchanan, R.	67	27			
Bull, William	88	30			
Buning, J.	43	18			
Burchett, R.	90	30			
Burgess, John, & Son	70	27			
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„ & Phillips	31	12	Collection from Bombay and		
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Causton, Joseph, & Sons	7	4	Collier, Luke	50	21
Cave, Harriet Jane, & Sons	38	14	Collmann, Leonard William	14 & 15	7
Cervalo	34	14	Collyer, R. H., M.D.	43	17
Chadwick, John	31	12	Colman, J. & J.	67	26
„ E. C.B.	93	31	„ „	67	27
Chambers, W. & R.	6	3	„ „	72	28
Champ, T.	67	27	Colomb, P. H., Commander		
Champagne, Isidore	41	17	R.N.	66	26
Chance Brothers & Co.	12	6	Colthurst, Symonds, & Co.	65	25
„ „ „	16	7	Combe, J., & Co.	55	23
„ „ „	44	18	Comfort, Edwin J., & Co.	40	15
„ „ „	65	25	Condy, Henry B.	44	18
„ H. „	44	18	„ „ „	11	6
Chappell & Co.	28	11	Cook & Hacking	56	23
Charley, J. & W., & Co.	28	11	„ Edward, & Co.	44	18
Chatwood, S.	65	25	„ J., „	43	18
Chauveau, P. J. O.	89	30	„ W., & Co.	44	19
Cherrill, Nelson K.	9	5	Cooke, W.	19	9
Chituldroog	34	13	Cooper	61	24
Christy & Co.	35	13	Cooper, James	79	29
„ W. M., & Sons	27	11	„ S.	8	5
Chubb & Son	65	25	„ Sir Daniel	43	18
Clabburn, Mr. W. H.	29	11	„ „	73	29
„ „	32	12	Copeland, W. T., & Sons	17	8
„ Sons, & Crisp	29	11	Copestake, Moore, Crampton,		
„ „	32	12	& Co.	33	13
Clark & Co.	65	25	Cornish	66	26
„ & Sons	46	19	Costa, Andrade, M. de, & Co.	42	17
„ Edwin	66	26	Coté, O.	42	17
„ T. & C., & Co.	40	15	Cottier, D.	16	7
Clarke & Dunham	50	21	Couget & Co.	43	17
„ Samuel	44	19	Coultas, J.	74	29
Claxton, Robert	23	9	Courtauld, S., & Co.	31	12
Clay, J. Travis	30	11	Coventry Elastic Weaving Co.	31	12
Clayton & Bell	14 & 15	7	Cow, P. B., Hill, & Co.	18	8
„ H., & Co.	50	21	„ „ „	44	18
„ Shuttleworth, & Co.	48	20	Cowan, A., & Sons	7	4
„ „	74	29	Cowasjee Muncherjee	26	10
Cleaver, F. S., & Son	25	10	Cowie, D.	67	27
Clementon, H.	72	28	Cox (Adelaide)	6	3
Clements, James M.	57	23	„ & Co.	14 & 15	7
Cliff, Joseph, & Son	51	21	„ & Son	16	7
„ „	65	25	„ Stephen	51	21
Clifford, C.	66	26	„ G. H.	43	17
Cloete, J. P.	73	28	Crace, John Gregory	14 & 15	6
Clowes, W., & Sons	6	3	Craig, Christie, & Co.	35	13
Cockshoot, J., Jun.	61	24	Cramb Brothers	9	5
Cocq, C. H. R.	72	28	Cremer, William Henry, Jun.	39	14
Coffee, J.	67	27	Credwson & Worthington	27	11
Coghill, Sir J. J., Bart.	9	5	Crisp, Edward, M.D.	12	6
Cohen, Barnet S.	7	4	Crompton, J. R.	7	4
Cohn	40	16	Cronmire, J. M., & H.	12	6
Cole, Arthur Charles	12	6	„ „ „	90	30
„ Henry, C. B.	8	4	Cross, Charles	14 & 15	7
„ „	14 & 15	7	Crosse & Blackwell	70	27
„ „ „	65	25	„ „	71	28
„ Miss	8	5	„ „	72	28
„ William	61	24	Crouch & Son	36	14
Coleman & Morton	48	20	Crowther, James, & Sons	30	12
„ „	74	29	Cruttenden	9	5
Coles, William Fletcher	34	13	Cuff & Sons	62	24

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Dabi-Persaud	36	14	Donaldson, J. A.	43	17
Dacca, Commissioner of .	34	13	Donkin, B., & Co.	52	22
Daft, T. B.	66	26	" " " "	53	22
D'Arifat, Bros., & Ray .	72	28	" " " "	59	24
Dallmeyer, J. H.	9	5	Donne, William, & Sons .	21	9
" " " "	12	6	Dorrell, E. R.	6	4
Daniel, Thomas	72	28	Dougall, James Dalziel .	37	14
Dardenne, A.	13	6	Douglas, A., & Co.	43	18
Darney, J., & Sons	44	19	" James	66	26
Date, H. W.	40	16	Doulton, H., & Co.	65	25
Davies & Co.	33	13	" & Watts	17	8
" & Son	61	24	" " " "	51	21
" D.	54	22	Dowlais Iron Works	40	15
" Robert S., & Sons . . .	30	11	Downie, Laird & Laing . .	84	30
Davis	43	17	Downs, Andrew	42	17
" D., & Sons	40	15	Duckham, H. A. F.	53	22
" E. John	43	17	Dudley, Earl of	40	14
" Samuel	43	17	Dugal, P.	46	20
Davy, Yates, & Routledge .	44	19	Duncan & Co.	70	27
Dawes, W.	10	5	" A.	48	20
Dawson & Sons	67	27	Dunlop, Robert	12	6
" J.	40	16	Dunmore, E.	43	17
Day & Son	6	3	Dunnicliff & Smith	33	13
" " " "	7	4	Dury, T.	16	7
" W. J.	6	4	Dyer & Watts	14 & 15	7
" Watkinson, & Co. . . .	30	11			
" Howgate, & Holt	30	12	Eades, W., & Son	53	22
" & Martin	44	19	Eadon, E. C.	41	16
De Becker	34	13	Eagle Iron Works Company .	40	15
De Bergue, C., & Co. . . .	54	22	Eassie, W., & Co.	65	25
Deed, John S., & Sons . . .	18	8	East Indian Exhibition of Arms	37	14
" " " "	42	17	" Indies	43	18
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Defries, Nathan	53	22	East, Samuel	35	13
" J., & Sons	24	10	Easterbrook & Allcard . . .	54	23
De Grave, Hon. W.	43	17	Ebsworth	43	18
Dehra Doon	72	28	Edmundson & Sons	16	7
Demuth, Lewis, & Co. . . .	44	18	Electro-Magnetic and Electro-		
Denisson	53	22	Plate Company	53	22
Denny Brothers	66	26	Elkington & Co.	21	9
Dent, M. F., & Co.	23	9	Ellam, B.	62	24
Denton & Jutsum	44	18	Elliott Brothers	12	6
Department of Public Works			Elliott's Patent Sheathing and		
(Canada)	9	5	Metal Company	40	15
Dering, G. E.	63	25	Ellore	34	13
Desbaratz, J. E.	6	4	Emanuel, Harry	21	9
Deschamps	14 & 15	7	" " " "	36	14
Dewrance, J., & Co.	53	22	England, William	9	5
Dewan Sing	32	12	Engelhart, A.	40	16
De Wolfe, J. M.	61	24	English and Australian Cop-		
Dexter, J.	41	17	per Company	40	15
Diamond, Hugh W., M.D. .	9	5	Erleben, J.	14 & 15	7
Dicks, William	6	3	European Sewing Machine Co.	57	22
Dickins & Co.	45	19	Evans, Joseph B.	17	8
Digby, the Lord	93	31	" & Askin	40	15
Distin, Henry, & Co.. . . .	10	5	" " Stafford	43	17
Dixon, John	46	19	" " Stevens	11	6
" J., & Sons	55	23	" D., & Co.	31	12
" Thomas	11	6	" H. C.	40	16
" Nicholls, & Co.	30	11	" James	61	24
Dobson, J.	16	7	" Parker, Sparke, & Co.	46	19
Docker, G.F.	67	27	Everitt, A., & Sons	40	15

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Fairlie, Robert F. . . .	63	25	Gillott, Joseph, & Sons . . .	7	4
Farrow & Jackson . . .	50	21	Gillow & Co. . . .	14 & 15	7
Faulkner, H., & Co. . . .	27	11	Gilpin, W., Sen., & Co. . . .	40	15
Felgate, J. . . .	43	18	Gisborne, F. N. . . .	66	26
Fenton, Son, & Co. & Fenton, S. G., & Co. . . .	28	11	Glasgow Jute Company . . .	28	11
Fentum, Martin . . .	26	10	Glendinning, John . . .	30	12
Ferrabee, James, & Co. . . .	56	23	Glew, John Henry . . .	35	13
Ferres, J. . . .	6	3	Glinister, J. E. . . .	43	18
Field, Cyrus . . .	64	25	Glover, G., & Co. . . .	24	10
„ J. C., & J. . . .	44	18	„ „ Thomas . . .	53	22
Filmer, Thomas Henry, & Son . . .	14 & 15	7	Glover, W. H., & Co. . . .	27	11
Firth, Edwin, & Sons . . .	30	12	Goddew, Buttery, & Davidson . . .	67	27
„ . . .	18	30	Goding, F., M.D. . . .	40	16
Firth (Bombay) . . .	6	4	Goggin, J. . . .	26	10
Fisher, D. . . .	73	29	Goldsborough & Co. . . .	43	17
Fitton, E. G. . . .	55	23	Goodall, C., & Son . . .	7	4
Fitz, J. . . .	44	19	Goodwin, W. . . .	44	19
Fleet, E., & Co. . . .	50	21	Gopal, Dost . . .	8	5
Flint, G. . . .	40	16	Gordon, Alice Isabel . . .	63	25
Flitch, J. J., & Son . . .	46	19	Gossage, W., & Sons . . .	44	18
Forrest, Messrs. . . .	24	10	Gotto, Frederick . . .	65	25
Fowke, Capt. Francis (the late) . . .	4	3	Gough & Co. . . .	67	27
„ . . .	53	22	Gourlay Brothers & Co. . . .	66	26
Fowler, J., & Co. . . .	48	20	Grand Trunk Railway of Canada . . .	63	25
Fox, Walker, & Co. . . .	48	20	Grant & Gask . . .	31	12
„ . . .	52	22	Graphites de Canada . . .	40	15
Framjee Heerjeebhoy . . .	26	10	Gray, George . . .	17	8
Frankland, G. J. . . .	67	27	Great Britain . . .	31	12
Franklin, William, & Son . . .	31	12	Greaves, J. W. . . .	65	25
Freeman, Thomas . . .	24	10	Green, A. . . .	40	16
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Frift, W. . . .	61	24	„ E., & Son . . .	53	22
Frodsham, Mr. Charles . . .	23	9	„ E. C. . . .	73	29
Frothingham & Workman . . .	40	15	„ Harry . . .	17	8
Fry, J. S., & Sons . . .	72	28	„ James . . .	16	7
„ William, & Co. . . .	31	12	„ W., . . .	73	29
Fuller, J. & A. . . .	61	24	Greene, Henry . . .	16	7
Funnel, John . . .	32	12	Greener, William . . .	37	14
Gadpaille, C. H., & Co. . . .	73	28	Greening, N., & Sons . . .	40	15
Galizia, Emanuele . . .	40	16	Green's Patent Tube Co. . . .	40	15
Gallichan & Co. . . .	65	25	Gregor, J. . . .	43	18
Galloway, W. & J., & Sons . . .	52	22	Gregory, James R. . . .	40	16
Gardner, H. & J. . . .	16	7	Greig, D. . . .	48	20
Garrett, R., & Sons . . .	48	20	Griggs, W. . . .	9	5
„ . . .	74	29	Grout & Co. . . .	31	12
Garrod & Co. . . .	44	19	Gwalior, H.H. the Maharajah of . . .	34	13
Gas Meter Company . . .	53	22	Gwynne & Co. . . .	53	22
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Gatliff, C. . . .	93	31	Haclin, A. . . .	14 & 15	7
Gatti Brothers . . .	72	28	Hackett, T. W. . . .	67	27
Gaunt & Poulter . . .	35	13	Hagar, G., & Co. . . .	41	17
Geissler, H. . . .	30	11	Haigh, George . . .	30	12
Genand, Dr. . . .	43	17	Hall, Joseph Sparkes . . .	35	13
General Iron Foundry Co. . . .	Testing House		„ Robert . . .	56	23
General Mining Association (Nova Scotia) . . .	40	15	„ „ & Samuel . . .	35	13
Geological Survey of Great Britain . . .	13	6	„ & Frater . . .	30	11
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Halsted, Rear-Admiral E.P.	66	26	" & Simpson	44	19
Hamilton Brothers	41	16	Hoff & Sons	18	8
" P. S.	40	15	Hogan, E.	72	28
Hampson, J., & Co.	62	24	Holdsworth, Samuel	23	9
Hancock, C. F., Son, & Co.	21	9	Holkar, H.H. the Maharajah	34	13
"	36	14	"	61	24
Hands, Son, & Co.	45	19	Holland, William	44	19
Hanhart, M. & N.	6	3	" & Sons	14 & 15	7
Hardman & Co.	16	7	Holme, George	31	12
"	21	9	Holmes, F. Hale	65	25
Harfield & Co.	66	26	" H. & A.	61	24
Hargreave & Nusseys	30	12	Home & Colonial School So- ciety	89	30
Harland & Fisher	8	5	Honeyman, Dr.	40	15
Harrison, George, & Co.	30	11	Honnens & Co.	44	19
Hart, James	31	12	Hooghly, the Collector of	34	13
" & Son	40	15	Hooper & Co.	61	24
Hartshorn, James	33	13	" Mr. G. N.	61	24
Harvey, J., & Co.	66	26	" W.	64	25
Haswell Coal Company	40	15	Hopkin & Williams	44	18
Hattersley, G., & Sons.	56	23	Horne, Robert	19	9
Haupt & Co.	73	28	Hornsby, R., & Sons	48	20
Hawkins, J., & Sons	27	11	Horrockses, Miller, & Co.	27	11
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Thorn, W., & F.	61	24	" F.	1 & 2	3
Thwaites & Carbutt	54	22	" John	23	9
Tinckler, R.	74	29	" J., & Sons	30	12
Tilley, J.	44	19	" Joseph, Parker, & Co.	40	15
" W.	70	27	" "	44	19
Tod, Captain A. G.	9	5	" T., & Son	66	26
Tolson, Haigh, & Brooke	30	12	Walker, W. H.	66	26
" William	27	11	Wallaroo Mining Company	40	15
Tonks, William, & Sons	40	15	Wallis, George	6	4
Tooth	43	17	" Haslam, & Steevens	48	20
Toronto Chamber of Arts and Manufactures	12	6	Wanklyn, William	31	12
Towler & Co.	47	20	Wanzer Sewing Machine Company	57	23
Towns, R. & Co.	43	17	War, Secretary of State for	11	5
Townsend, George, & Co.	40	15	" "	24	10
Trapitt	67	27	Ward, Capt. J. R., R.N.	66	26
Travancore, Maharajah of	8	5	" John	14 & 15	7
Treadwin, Charlotte Elizabeth	33	13	" Edwin	42	17
Treloar, Thomas	18	8	" Henry	42	17
Tress & Co.	35	13	" Marcus, & Co.	7	4
Trinidad Commission	40	16	" " "	8	4
" "	43	17	" " "	26	10
Trinity House Corporation	65	25	" J. " "	61	24
" "	66	26	" John	14 & 15	7
Trollope, George, & Sons	14 & 15	7	" & Hughes	16	7
Tucker, J. Scott	66	26	Wardley, George	9	5
Tudor, S., & W.	40	16	Waring, E. J.	44	19
" "	44	18	Warne, William, & Co.	44	18
Tull, William, & Co.	18	8	" " "	53	22
Turnbull Brothers	36	14	Warrenheip's Distillery Co.	67	27
Turner, E. R., & F.	48	20	Warrington, J.	44	19
" C., & Son	44	19	Waterston, G., & Son	7	4
" Barrs, & Tookey	31	12	Watherston & Son	21	9
Turton, Thomas, & Sons	40	15	" "	36	14
" "	63	25	Waterhouse, Alfred	4	3
Twinberrow & Son	11	6	Watkins, R.	23	10
Tye, John	50	21	" T.	55	23
Tyler, John H.	51	21	Watson, Rhodes, & Co.	30	12
			" John, & Sons	40	16
Underhill, W. S.	48	20	Way, Mr. H. S.	30	11
Urquhart, Lindsay, & Co.	56	23	Webb & Son	46	19
			Webster, Richard	23	10
Valois, N.	46	19	" & Horsfall	40	15
Valiquet	81	30	Wedgwood, Josiah, & Sons	14 & 15	7
Van Ruen, S., & Co.	73	28	" " "	17	8
Vanderbyl, P.	31	12	Welch & Sons	35	13
Vane, Earl	40	16	Wells, C. T.	83	30
Vaughan, W. H.	67	27	" C. Tennant	7	4
Veitch, J. & Son	84	30	Welsh Slate Company	65	25
Verschoyle, Lieut-Col. Henry			Wenham Lake Ice Company	50	21
William	9	5	Wenning, Hill, & Ware	72	28
Vickerman, B., & Sons	30	12	West Cumberland Hematite Iron Company	40	15
Vickerman & Co.	40	16			

	Class	Page		Class	Page
Wertheimer, Samson	14 & 15	7	Wilson, John J., & William	30	12
West of England Cloth Ma- nufacturers	30	11	„ Newton, & Co.	57	23
West & Gregson	53	22	„ Walker, & Co.	46	19
Westlake, Samuel	41	17	„ William	67	27
Weston, T. A.	53	22	„ William, & Co.	35	13
Wheal Coglin Mining Co.	40	16	Windle, J. D.	43	17
Wheatley, James	36	14	„ „	44	19
Whincup, Joseph	18	8	Windover, C. S.	61	24
„ „	45	19	Winfield, R. W. & Co.	24	10
White & Brothers	65	25	Winter, A.	43	17
„ & Co.	43	18	„ & Masters	46	19
„ Edward	23	9	Wirsing & Reynolds	72	28
„ Henry	9	5	Wishart, Thomas	66	26
„ J. S.	66	26	Wolff, E., & Son	7	4
Whitehead, John	54	23	Woodall, J., & Son	61	24
„ & Co.	70	27	Woodbury, Walter Bentley	9	5
Whiteley, T. R.	18	8	Woodcock, W.	24	10
Whiteway & Co.	40	16	Woods & Cocksedge	48	20
Whitley, Joseph, & Co.	40	15	Woodward, J. B.	14 & 15	7
Whitmée, J., & Co.	50	21	„ & Grosvenor	18	8
„ „	79	29	Woodward, Palmer, & Rad- ford	18	8
Whitworth Company (limited)	37	14	Woollams, John, & Co.	19	9
„ „	54	22	„ H. W., & Co.	19	9
Whytock, Richd., & Co.	14 & 15	7	Woolloton & Son	43	18
Wicks, P.	43	17	Wornum, Robert, & Sons	10	5
Wiehé, Hon. C., & Co.	72	28	Worssam, Samuel, & Co.	54	22
Wigan Coal & Iron Co.	40	15	Wortley, Col. Stuart	9	5
Wildey & Co.	18	8	Wren & Hopkinson	55	23
Wiley, William Edward	7	4	Wright, Arthur	17	8
„ „	36	14	„ Bryce	90	30
Wilheline, Jun.	35	13	„ George	14 & 15	7
Wilks, Edwin	38	14	„ Henry G., M.D.	11	5
Wilkinson George	48	20	„ & Mansfield	14 & 15	7
„ „	53	22	Wyatt, J. H.	14 & 15	7
„ Heywoods, & Clark	44	18	Wyburn & Co.	61	24
„ John, Son, & Co.	18	8	Wyndham, Messrs.	73	28
Willett, Edward, Nephew, & Co.	29	11	Wyon, J. S. & A. B.	3	3
Williams, Alfred	89	30	„ „	8	4
Williamson, W.	50	21	Young Brothers	24	10
„ Brothers	53	22	„ James	44	18
Willis, H. R., & Co.	18	8	Ystalyfera Iron & Tin-Plate Company	40	16
Willoughby d'Eresby, Right Hon. Lord	65	25	Zaehnsdorf, J.	7	4
Willms, A.	21	9	Zanelli, A.	43	18
Wilson Brothers	73	29	Zobel, Julius	40	15
„ G. W.	9	5			
„ James	51	21			

ILLUSTRATED
A P P E N D I X,

CONTAINING

DETAILED NOTICES OF MANY OF THE OBJECTS
EXHIBITED.

[The Notices in this Appendix have been arranged in the order of the Groups and Classes to which the various objects described belong.]

GROUP I.

CLASS II.

ENGLISH EARTHENWARE MOSAICS.

Most of the Mosaics exhibited in the British department have been worked with materials, and in a mode, different from the ancient, or those other processes now practised. The material consists of tesserae of earthenware, which have been manufactured by Messrs. Minton & Co., Stoke-on-Trent.

They are, in fact, diminutive bricks, and, if used in the open air, are less liable to lose their colour by oxidation than tesserae made of glass or enamel. It may also be expected, that the cement used to bind them together will be more durable than putty or a mastic.

The scales of colour at present are more

limited than in tesserae made of glass, but daily experiments are increasing the variety. They seem well adapted for reproducing pictures in fresco, distemper, or painted in any medium which does not reflect.

They require little cutting, as they can be made of any shape; but when cutting is necessary, it is easily done by a small machine or by the hand. The process of working is quicker than with glass tesserae. The face of the tesserae is gummed down on paper. Portions can be worked separately by different persons, and afterwards easily brought together. They are then joined and backed with cement, and thus become one block.

GROUP II.

CLASS VI.

MACLURE, MACDONALD, & MACGREGOR, *Lithographers and Ornamental Printers to Her Britannic Majesty, London, Liverpool, Manchester, and Glasgow.*

Obtained the Prize Medal of the International Exhibition, London, 1862, for 'Lithographic Printing by Machinery.'

THE specimens exhibited represent every description of *Lithography*, produced by MACLURE, MACDONALD, & MACGREGOR, namely, 'chromo,' chalk, line, transfer, and engraving on stone; *portraits in ink*, a new, powerful, and wonderfully rapid process; also, reduced fac-similes of same by elastic method. *Engraving on steel and copper*, viz. landscape, portrait, medallion, microscopic, engine turning, and commercial. *Bank-notes and designs*; postage stamps, &c. *Die-sinking and embossing*; medals and coins; and *Machine printing from stone by steam power*, approximating to type in rapidity of production.

Ont obtenu la Médaille de l'Exposition Internationale, Londres, 1862, pour Impression lithographique au moyen de machines.

Les spécimens exposés représentent toutes les variétés de *Lithographie* exécutées par MACLURE, MACDONALD, et MACGREGOR, savoir: chromolithographie, lithographie aux crayons, linéaire, autolithographie, et gravure sur pierre; *portraits à l'encre*, un procédé nouveau à puissants effets et d'une rapidité merveilleuse; et aussi fac-similés réduits des mêmes

par méthode élastique. *Gravure sur acier et cuivre* de paysages, portraits, médaillons; gravure au microscope, en guillochés, et commerciale. *Billets de banque et dessins ad hoc*; timbres de poste, etc. *Gravure en creux et en relief*; médailles et monnaies; enfin, *Impression mécanique à vapeur d'après la pierre*, égalant presque en rapidité celle à caractères.

Erlangten die Preis-Medaille der internationalen Industrie-Ausstellung zu London, in 1862, für 'lithographischen Maschinendruck.'

Die ausgestellten Proben vertreten jede Art der von MACLURE, MACDONALD & MACGREGOR producirten *lithographischen Arbeiten*, nämlich: 'Chromo,' Kreide, Linie, Ueberdruck und Gravirung auf Stein; *Portraits in Tinte*, ein neuer, effectiver und ausserordentlich rascher Process; ebenso reducirte Facsimile derselben durch die elastische Methode. *Landschafts-, Portrait-, Medallion-, microscopischer, Maschinen- und commercieller Stahl- und Kupferstich. Banknoten und Entwürfe*; Postmarken u. s. w. *Stempelschneiden und erhabene Arbeit*; Medaillen und Münzen; und *Maschinendruck von Stein bei Dampfkraft*, dem Buchdruck in Schnelligkeit der Herstellung ziemlich gleichkommend

HOUSE OF LORDS AND PARLIAMENT.

FACSIMILES OF PUBLIC AND PRIVATE ACTS, PATENTS, &c.; JOURNALS OF THE HOUSE OF LORDS AND ACTS OF PARLIAMENT.

The following documents and books are transmitted in order to exhibit and illustrate some of the principal proceedings in the House of Lords and Parliament, and especially the mode in which the business of the House, and the Acts of Parliament are recorded:—

1. Facsimile of a Commission for opening Parliament.
2. Facsimile for proroguing Parliament.
3. Facsimile for authorising the Royal Assent to be given to Bills.
4. Original Commission for proroguing Parliament in 1864, sealed with the Great Seal.
5. Facsimile of an Act of Parliament for granting supplies to Her Majesty, as recorded on vellum.
6. Facsimile of an ordinary public Act.
7. Facsimile of a local and personal Act.

8. Facsimile of a private Act.
9. Facsimile of Letters Patent, creating a peerage.
10. Facsimile of the Writ of Summons of the peer to attend Parliament.
11. A volume of the Minutes of the Proceedings of the House of Lords in 1865, in which the business transacted at each day's sitting is briefly entered.
12. A volume of the Journals of the House of Lords, in which the same business is entered more formally and in greater detail, and which, is regarded as the authentic record of the proceedings of the House.
13. The printed Acts of Parliament of the session 1865, which being printed by Her Majesty's printers, are received in evidence in the courts of justice (8 volumes).

HOUSE OF COMMONS.

PARLIAMENTARY PAPERS, FOR THE USE OF THE HOUSE OF COMMONS.

The fifty-eight volumes of so-called Parliamentary Papers, printed for the use of the House of Commons during the Session of 1865, afford a general insight into the operations of the Government in its various branches, and into the labours of the House of Commons itself, and comprise, under the three general heads of (1) 'Reports and Papers,' (2) 'Bills,' (3) 'Papers presented by command of Her Majesty,' a large amount of information respecting matters of public interest.

These documents are either periodical returns and accounts rendered annually by public departments and public officials, in pursuance of Acts of Parliament, or are printed by special order of the House upon the motion of individual members, or else are presented to the House by order of the Queen.

A select committee is appointed at the beginning of each session to assist the Speaker in all matters relating to the printing executed by order of the House, and for the purpose of selecting and arranging for printing returns and papers presented in pursuance of motions made by members. All papers are referred to this committee, and it is the usual practice for the House not to order papers to be printed until they have been examined by the committee.

A copy of every paper printed by the House is furnished to each member, and copies may be obtained by the public by purchase. A reference to the list of papers contained in these volumes will show that a considerable amount of the business of the public offices consists in framing returns, and supplying information for

Parliament. A consecutive record is thus maintained of the progress of the country in its social, commercial, and industrial relations, by the statistical accounts prepared at the Board of Trade, by the Annual Reports of the Postmaster-General, of the Commissioners of Customs, of the Registrar-General, of Her Majesty's Consuls abroad, and many others. But besides these departmental reports, it is usual to communicate to the House the reports of all Royal Commissions appointed to enquire into matters of public interest, which are printed generally with the evidence in extenso taken before the Commissioners. Similar in some respects to these latter are the Reports and Proceedings of Select Committees appointed by the House of Commons itself.

At the end of each session the papers are systematically arranged in volumes, with a proper index; and to facilitate reference to the transactions of past years, general indexes are occasionally published. There is one such index extending over the period 1801-52, and a later one from 1853 to 1857.

It may be mentioned that parliamentary papers may be sent through the Post Office to all places in the United Kingdom, at a rate of postage not exceeding 1*d.* for every four ounces in weight, provided they be sent uncovered, or with a cover open at the sides, and with the words 'Parliamentary Proceedings' written on printed on the cover.

Parliamentary papers may also be sent, under the 'book post' privilege, to all the colonies, and to those foreign states between which and this country there is a book post.

TABLE SHOWING MUSICAL WORKS WHICH HAVE BEEN

NAMES OF PUBLISHERS	VOCAL										
	SACRED					SECULAR					
	Solos	Duets	Trios	Quartetts, Choruses, &c.	Oratorios	Solos	Duets	Trios	Quar- tetts, &c.	Comic	Re- prints
Addison & Co. . .	...	...	...	...	2	1	...	...	...	...	...
Augener & Co. . .	...	...	...	3	...	45	4	1	2	6	15
Beuler . . .	...	...	...	...	...	3	...	...	...	18	...
Blockley . . .	14	...	...	...	...	19	...	...	...	1	...
Boosey & Co. . .	1	...	...	3	...	44	...	...	12	4	7
Brewer & Co. . .	5	1	1	...	...	50	10	1	1	1	5
Campbell & Co. . .	...	...	...	...	...	5	...	...	...	1	3
Chappell & Co. . .	12	...	...	...	...	40	...	...	3	20	7
Cock, Lamborn, & Co. . .	3	...	...	...	...	37	7	5	14	...	...
Cocks & Co. . .	3	...	...	...	...	37	6	...	2	3	2
Cramer & Co. . .	5	...	...	3	...	31	2	...	3	3	4
D'Alcorn . . .	...	...	...	...	...	...	...	3	...	100	...
Davidson Duncan & Co. . .	...	...	...	1	...	8	3	...	...	3	...
Dearle & Co. . .	1	...	...	...	...	6	...	...	3	...	1
Duff & Stewart . . .	...	...	...	...	...	12	1	...	...	5	1
Emery . . .	1	...	...	...	...	16	6	...	...	...	...
Ewer & Co. . .	...	...	...	...	...	5	2	...	...	...	...
Hammond & Co. . .	...	...	...	1	...	4	...	...	...	...	3
Hime & Co. . .	...	...	...	...	...	2	...	...	...	2	...
Hopwood & Crewe . . .	...	...	...	...	...	...	...	...	...	38	...
Hutchings & Romer . . .	6	...	2	...	...	29	5	7	1	3	1
Jeffery & Co. . .	6	...	...	...	...	7	...	...	...	1	...
Lonsdale & Co. . .	7	...	...	3	...	8	...	...	1	...	44
Metzler & Chappell . . .	...	...	...	...	...	...	...	...	...	2	...
Mills . . .	...	...	...	...	...	10	...	...	1	...	1
Music Library Co. . .	...	...	...	...	...	...	...	...	...	...	...
Music Publishing Co. . .	...	...	...	...	...	12	...	...	...	...	...
Novello & Co. . .	1	...	1	20	19	...	...	...	110	...	...
Oetzmann . . .	2	...	...	...	...	2	...	...	...	3	3
Ollivier & Co. . .	...	...	...	...	...	20	3	...	...	...	...
Rola . . .	...	...	...	...	...	...	...	...	...	...	...
Rudall, Rose, & Co. . .	...	...	...	...	...	2	...	...	...	...	...
Sinclair & Co. . .	1	...	...	...	...	33	1	...	...	17	1
Whittingham, A. . .	...	...	...	...	...	...	...	...	...	...	...
Williams, B. . .	1	...	...	...	...	2	...	...	1	5	...
Williams, W. . .	...	...	...	...	...	12	...	...	...	...	...
TOTAL . . .	69	1	4	34	21	502	50	17	154	236	98

* These divisions are bound in cases which are invente

PUBLISHED IN 1866, AND EXHIBITED BY THE PUBLISHERS.

INSTRUMENTAL													NAMES OF PUBLISHERS
PIANOFORTE					ORGAN AND HARMONIUM	PIANO AND OTHER INSTRUMENTS*		Instruction Books	COMPLETE WORKS	ORCHESTRAL PARTS*	FULL SCORES	TOTALS	
Fantasias, Caprices, &c.		Dance		Reprint		Duets	Trios, Quar- tetts, &c.						
Solos	Duets	Solos	Duets										
...	...	...	...	...	...	...	...	...	...	...	...	3	Addison & Co.
116	9	20	2	13	13	4	4	4	3	...	...	264	Augener & Co.
...	...	...	...	...	...	...	...	...	...	...	...	21	Beuler
2	...	16	...	...	...	...	...	...	...	...	...	52	Blockley
28	3	14	1	...	...	...	...	...	12	...	...	129	Boosey & Co.
129	13	42	1	4	1	1	...	17	8	...	...	291	Brewer & Co.
4	...	2	...	...	...	...	...	...	...	29	...	44	Campbell & Co.
77	11	13	7	77	38	6	...	5	11	8	...	335	Chappell & Co.
...	...	...	...	...	...	...	...	...	11	...	1	78	Cock, Lamborn, & Co.
93	24	15	...	7	...	...	...	7	...	...	...	199	Cocks & Co.
58	1	12	8	1	1	...	...	...	...	...	...	135	Cramer & Co.
...	...	14	...	...	...	...	...	...	...	...	...	114	D'Alcorn
7	...	4	...	...	...	...	...	...	1	...	...	27	Davison Duncan & Co.
12	...	6	2	1	...	...	...	...	...	...	...	32	Dearle & Co.
9	15	3	...	...	...	...	...	...	...	...	...	46	Duff & Stewart
23	...	...	...	...	...	...	...	...	...	...	...	46	Emery
33	...	1	...	...	...	...	...	...	...	...	...	41	Ewer & Co.
11	...	27	...	...	...	...	...	...	...	...	...	46	Hammond & Co.
2	...	4	...	...	...	...	...	...	...	...	...	10	Hime & Co.
...	...	30	...	...	...	...	...	...	...	...	...	68	Hopwood & Crewe
33	7	18	3	...	...	...	...	2	...	...	...	117	Hutchings & Romer
35	...	11	...	...	...	...	...	...	...	...	...	60	Jeffery and Co.
26	3	1	...	10	...	3	...	...	14	...	...	120	Lonsdale & Co.
...	...	...	...	...	...	...	...	...	5	...	...	7	Metzler & Chappell
7	...	...	...	...	...	...	...	...	...	...	...	19	Mills
...	...	1	...	...	...	...	...	...	...	...	...	1	Music Library Co.
1	...	2	...	...	...	...	...	...	2	4	...	21	Music Publishing Co.
...	...	...	...	...	29	...	...	1	29	1	2	213	Novello & Co.
10	...	6	...	...	...	...	...	...	...	...	...	26	Oetzmann
8	...	4	...	1	...	...	...	...	...	...	...	36	Ollivier & Co.
...	...	...	...	...	...	...	...	1	...	...	...	1	Rola
...	...	3	...	...	...	2	1	...	...	...	...	8	Rudall, Rose, & Co.
18	...	11	...	...	1	...	...	...	1	...	...	84	Sinclair & Co.
...	...	...	...	...	4	...	...	...	2	...	...	6	Whittingham, A.
2	...	4	2	1	18	Williams, B.
4	16	Williams, W.
748	86	284	24	114	87	18	5	37	100	42	3	2734	TOTAL

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Pak Angil Men sey, Dilgir key wastey oomed aor Sookh Key Sookhoon. Shooro men khoob achée taswir rangin kinaree. Bunanewali, *Mrs. Martindale*. Ek jild, imperial folio. Kimut, panch guinea. Khoobsoort gild men bundhee hey. MR. MITCHELL, Ranee ka Kheetabwalla, London.

CATALOGUE OF THE PUBLICATIONS

Authorised by the Lords Commissioners of Her Majesty's Treasury, under the direction of the Master of the Rolls.

CHRONICLES AND MEMORIALS, ETC.

In the year 1822 the House of Commons presented an address to the Crown, stating that the ordinary editions of the works of our ancient historians were inconvenient and defective; that many of their writings still remained in manuscript, and, in some cases, in a single copy only. They added, 'that an uniform and convenient edition of the whole, published under His Majesty's royal sanction would be an undertaking honourable to His Majesty's reign, and conducive to the advancement of historical and constitutional knowledge; that the House therefore humbly besought His Majesty, that he would be graciously pleased to give such directions as His Majesty, in his wisdom, might think fit for the publication of a complete edition of the ancient historians of this realm, and assured His Majesty that whatever expense might be necessary for this purpose would be made good.'

The Master of the Rolls, being very desirous that effect should be given to the resolution of the House of Commons, submitted to Her Majesty's Government in 1857 the plan already referred to for the publication of the ancient chronicles and memorials of the United Kingdom, and it was adopted accordingly. In selecting these works it was considered right, in the first instance, to give preference to those of which the manuscripts were unique, or the materials of which would help to fill up blanks in English history for which no satisfactory and authentic information has hitherto

existed in any accessible form. The Master of the Rolls desired to form a *corpus historicum*, which should be as complete as possible, within reasonable limits. In a subject of so vast a range it was important that the historical student should be able to select such volumes as his own peculiar tastes and studies required, and should not be put to the expense of purchasing the whole collection; an inconvenience inseparable from any other plan than that which has been in this instance adopted.

Of the Chronicles and Memorials 80 volumes have been published. They embrace the period from the earliest time of British history down to the end of the reign of King Henry VII.

Recueil des Croniques et Anchiennes Istories de la Grant Bretaigne a present nomme Engleterre, par Jehan de Waurin. From Albina to 688. Edited by William Hardy, Esq., F.S.A.

This curious chronicle extends from the fabulous period of history down to the return of Edward IV. to England in the year 1471, after the second deposition of Henry VI. The manuscript from which the text of this work is taken is believed to be the only complete and nearly contemporary copy now in existence. It is in 12 volumes folio maximo vellum, bound in morocco, and is illustrated with exquisite miniatures, vignettes, and initial letters. It was written towards the end of the fifteenth century, having been expressly

executed for Louis de Bruges Seigneur de la Gruthuyse and Earl of Winchester, from whose cabinet it passed into the library of Louis XII. at Blois. The work, as originally bound, was comprised in six volumes, but it has since been rebound in twelve, and is now in the Imperial Library at Paris.

This work has also been translated into English, and published under the direction of the Master of the Rolls.

Ricardi de Cirencestria Speculum Historiale de gestis Regum Angliæ, ab anno 449 usque ad annum 1066. Edited by John E. B. Mayor, M.A.

Of the compiler of this work, which is in four parts, very little is known. In the prologue he calls himself Richard a Monk of Westminster, and at the end of the first part, Richard of Cirencester a Monk of St. Peter's Westminster. One volume only, containing the first three books, has at present been published; the remainder is in the press, and will shortly appear. There is a continuation of the work down to the year 1348, which in due time will also be printed.

Leechdoms, Wortcunning, and Star-craft of Early England: a collection of documents illustrating the history of science in this country before the Norman Conquest. By the Rev. Oswald Cockayne, M.A.

This work illustrates not only the history of science, but the history of superstition. In addition to the information bearing directly upon the medical skill and medical faith of the times, there are many passages which incidentally throw light upon the general mode of life and ordinary diet. The volumes are interesting not only in their scientific, but also in their social aspect.

The manuscripts from which they have been printed are valuable to the Anglo-Saxon scholar for the illustrations they afford of the Anglo-Saxon orthography.

Life of Edward the Confessor—I. La Estoire de Seint Aedward le Rei. II. Vita Beati Edvardi Regis et Confessoris. III. Vita Æduuardi Regis qui apud Westmonasterium requiescit. Edited by the Rev. H. R. Luard, M.A.

The first of these biographies is a poem in Norman French, containing 4,686 lines. It is addressed to Alianor, Queen of Henry the Third, and was probably written in the year 1245, on the occasion of the restoration of the church of Westminster. Nothing is known of the author.

The second, also by an anonymous author, was apparently written for Queen Edith, between the years 1066 and 1074, during the pressure of the suffering brought on the Saxons by the Norman conquest. It notices many facts not found in other writers, and some which differ considerably from the usual accounts.

The third is an anonymous poem, containing

536 lines, written between the years 1440 and 1450, by command of Henry VI., to whom it is dedicated. Though it does not throw any new light on the reign of Edward the Confessor, yet it is valuable as a specimen of the Latin poetry of the time.

The Anglo-Saxon Chronicle. Edited and translated by Benjamin Thorpe, Esq.

This Chronicle, extending from the earliest history of Britain to the year 1154, is justly the boast of England; for no other nation can produce any history, written in its own vernacular, at all approaching it, either in antiquity, truthfulness, or extent, the historical books of the Bible alone excepted. There are at present six independent manuscripts of the Saxon Chronicle, ending in different years, and written in different parts of the country. In the present edition the text of each manuscript is printed in columns on the same page, so that the student may see at a glance the various changes which occur in orthography, whether arising from locality or age.

Alexandri Neckam de Naturis Rerum Libri Duo. With the poem of the same author, *De Laudibus Divinæ Sapientiæ.* Edited by Thomas Wright, Esq., M.A., F.S.A. 1 vol.

Neckam was a man who devoted himself to science, such as it was in the twelfth century.

In the 'De Naturis Rerum' are to be found what may be called the rudiments of many sciences mixed up with much error and ignorance. Neckam was not thought infallible, even by his contemporaries, for Roger Bacon remarks of him, 'this Alexander in many things wrote what was true and useful; but he neither can nor ought by just title to be reckoned among authorities.'

Neckam, however, had sufficient independence of thought to differ from some of the schoolmen who in his time considered themselves the only judges of literature. He had his own views in morals, and in giving us a glimpse of them, as well as of his other opinions, he throws much light upon the manners, customs, and general tone of thought prevalent in the twelfth century.

The poem entitled 'De Laudibus Divinæ Sapientiæ,' appears to be a metrical paraphrase or abridgment of the 'De Natura Rerum.' It is written in the elegiac metre; and though there are in it many lines which violate classical rules, it is, as a whole, above the ordinary standard of mediæval Latin.

Chronicon Monasterii de Abingdon. Vols. I. and II. Edited by the Rev. Joseph Stevenson, M.A., of University College, Durham, and Vicar of Leighton Buzzard.

This Chronicle traces the history of the great Benedictine monastery of Abingdon in Berkshire, from its foundation by king Ina of Wessex, to the reign of King Richard I., shortly after

which period the present narrative was drawn up by an inmate of the establishment. The author had access to the title-deeds of the house, and incorporates into his history various charters of the Saxon kings, which are of great importance as illustrating not only the history of the locality, but that of the kingdom at large. The work is now printed for the first time.

Letters and Papers illustrative of the Wars of the English in France during the Reign of Henry VI., King of England. Vol. I., and Vol. II. (in two Parts.) Edited by the Rev. Joseph Stevenson, M.A., of University College, Durham, and Vicar of Leighton Buzzard.

The letters and papers contained in these volumes are derived chiefly from originals or contemporary copies extant in the Bibliothèque Impériale, and the Dépôt des Archives, in Paris. They illustrate the line of policy adopted by John Duke of Bedford and his successors during their government of Normandy, and such other provinces of France as had been acquired by King Henry V. We may here trace, step by step, the gradual decline of the English power, until we are prepared to read of its final overthrow in the narrative of Blondel.

Historia Monasterii S. Augustini Cantuariensis. By Thomas of Elmham. Edited by Charles Hardwick, M.A.

This history extends from the arrival of St. Augustine in Kent until 1191. Prefixed is a chronology as far as 1418, which shows in outline what was to have been the character of the work when completed. The only copy known is in the possession of the Master and Fellows of Trinity College, Cambridge. The author's name does not occur; but the internal evidence in the Chronicle shows that he was a monk of St. Augustine's, Canterbury, and treasurer of that foundation. He was connected with Norfolk, and most probably with Elham, whence he derived his name.

Magna Vita Sancti Hugonis Lincolnensis Episcopi. Edited by the Rev. James F. Dimock, M.A.

This work contains a number of very curious and interesting incidents, is very valuable, not only as a truthful biography of a celebrated ecclesiastic, but as the work of a man who, from personal knowledge, gives notices of passing events, as well as of individuals, who were then taking active part in public affairs.

The author, in all probability, was Adam Abbot of Evesham. He was domestic chaplain and private confessor of Bishop Hugh, and in these capacities he was admitted to the closest intimacy. Bishop Hugh was Prior of Witham for eleven years before he became Bishop of Lincoln. His consecration took place on the 21st September, 1186; he died on the 16th of November, 1200; and was canonised in 1220.

Chronicles and Memorials of the Reign of Richard the First. Vol. I. *Itinerarium Peregrinorum et Gesta Regis Ricardi.* Edited by William Stubbs, M.A., Vicar of Navestock, Essex, and Lambeth Librarian.

The authorship of this Chronicle, hitherto ascribed to Geoffrey Vinesauf, is now more correctly attributed to Richard, Canon of the Holy Trinity of London. The narrative extends from A.D. 1187 to 1199; but its chief interest consists in the minute and authentic narrative with which it furnishes us of the exploits of King Richard I., from his departure from England, in December 1189, to his death in 1199. The author states, in his prologue, that he was an eye-witness of much that he records; and various incidental circumstances which occur in the course of the narrative confirm this assertion.

Chronicles and Memorials of the Reign of Richard I. Vol. II. *Epistolæ Cantuarienses, the Letters of the Prior and Convent of Christ Church, Canterbury,* from 1187 to 1199. Edited by William Stubbs, M.A., Vicar of Navestock, Essex, and Lambeth Librarian.

These letters, written between 1187 and 1199, are of value as furnishing authentic materials for the history of the ecclesiastical condition of England during the reign of Richard I. They had their origin in a dispute which arose from the attempts of Baldwin and Hubert, archbishops of Canterbury, to found a college of secular canons—a project which gave great umbrage to the monks of Canterbury, who saw in it a design to supplant them in their function of metropolitan chapter. These letters are printed, for the first time, from a MS. belonging to the archiepiscopal library at Lambeth.

Giraldi Cambrensis Opera. Vols. I. II. and III. Edited by J. S. Brewer, M.A.

These volumes contain the historical works of Gerald du Barry, who lived in the reigns of Henry II., Richard I., and King John, and attempted to re-establish the independence of Wales, by restoring the see of St. Davids to its ancient primacy. His works are of a very miscellaneous nature, both in prose and verse, and are remarkable chiefly for the racy and original anecdotes which they contain relating to contemporaries. He is the only Welsh writer of any importance who has contributed so much to the mediæval literature of this country, or assumed, in consequence of his nationality, so free and independent a tone. His frequent travels in Italy, in France, in Ireland, and in Wales, gave him opportunities for observation which did not generally fall to the lot of mediæval writers in the 12th and 13th centuries; and of these observations Giraldus has made due use.

Only extracts from these treatises have been

printed before; and almost all of them are taken from unique manuscripts.

Royal and other Historical Letters Illustrative of the Reign of Henry III., from the Originals in the Public Record Office. Vols. I. and II. Selected and edited by the Rev. W. W. Shirley, Tutor and late Fellow of Wadham College, Oxford.

The letters contained in these volumes are derived chiefly from the ancient correspondence formerly preserved in the Tower of London, and now deposited in the Public Record Office. They illustrate the political history of England during the growth of its liberties, and throw considerable light upon the personal history of Simon de Montfort. The affairs of France form the subject of many of these letters, more especially in regard to the province of Gascony. The entire collection consists of nearly 700 documents, the greater portion of which are now printed for the first time.

Letters of Bishop Grosseteste, illustrative of the Social Condition of his Time. Edited by Henry Richards Luard, M.A., Fellow and Assistant Tutor of Trinity College, Cambridge.

The letters of Robert Grosseteste (131 in number) are here collected from various sources, and arranged in chronological order. They range in date from about A.D. 1210 to 1253, and relate to various matters connected not only with the political history of England during the reign of Henry III., but with its ecclesiastical condition. They refer especially to the diocese of Lincoln, of which Grosseteste was bishop. These letters have not hitherto been collected, and the greater portion of them are now printed for the first time.

Rogeri Bacon Opus Tertium. Edited by J. S. Brewer, M.A.

This is the celebrated treatise—which, up to this time, had never been printed—so frequently referred to by the great philosopher in his works. It contains the fullest details we possess of the life and labours of Roger Bacon. The volume also contains a fragment by the same author, supposed to be unique, the '*Compendium Studii Theologie*.'

Monumenta Franciscana. Edited by J. S. Brewer, M.A.

This volume contains the original materials for the history of the settlement of the order of St. Francis in England, the letters of Adam de Marisco, and other papers connected with the foundation and diffusion of this great body. It has been the aim of the editor to collect whatever historical materials could be found in this country, in the British Museum, or elsewhere, towards illustrating a period of the national history for which only scanty materials exist. None of these works have been printed before.

Brut y Tywysogion. Edited and translated by the Rev. J. Williams Ab Ithel.

This 'Chronicle of the Princes of Wales' has been attributed to Caradoc of Llancarvan, who flourished about the middle of the twelfth century. It is written in the ancient Welsh language, and begins at the abdication and death of Cadwalader at Rome, in the year 681, and continues the history down to the subjugation of Wales by King Edward I., about the year 1282.

Annales Cambriae. Edited by the Rev. J. Williams Ab Ithel.

These Annals, which are in Latin, commence in the year 447, and come down to the year 1288. The earlier portion appears to be taken from an Irish Chronicle, which was also used by Tigemad, and by the compiler of the Annals of Ulster. During its first century, it contains scarcely anything relating to Britain; the earliest direct concurrence with English history is relative to the mission of Augustine. Its notices throughout, though brief, are valuable. These Annals were probably written at St. David's, by Blegewryd Archdeacon of Llandaff, the most learned man in his day in all Cymru.

Annales Monastici. Vol. I. *Annales de Mar-gan*, 1066-1232; *Annales de Theokesberia*, 1066-1263; *Annales de Burton*, 1004-1263. Vol. II. *Annales Monasterii de Wintonia*, 519-1277. *Annales Monasterii de Waverleia*, 1-1291. Vol. III. *Annales prioratus de Dunstaplia*, 1-1297; *Annales Monasterii de Bermundeseia*, 1042-1432. Edited by Henry Richards Luard, M.A., Fellow of Trinity College, and Registry of the University, Cambridge.

The present collection of Monastic Annals embraces all the more important chronicles compiled in the different religious houses in England during the thirteenth century. These distinct works are seven in number, and the extreme period which they embrace ranges from A.D. 1 to 1432, although they refer more especially to the reigns of King John, Henry III., and Edward I. Some of these narratives have already appeared in print, but others are now printed for the first time.

Chronica Johannis de Oxenedes. Edited by Sir Henry Ellis, K.H.

Although this Chronicle tells of the arrival of Hengist and Horsa in England, in the year 449, yet it substantially begins with the reign of King Alfred, and comes down to the year 1292, where it ends abruptly. The history is particularly valuable for its notices of events in the eastern portions of the kingdom, which are not to be elsewhere obtained, and some curious facts are mentioned relative to the floods in that part of England, which are confirmed in the Friesland Chronicle of Anthony Heinrich, pastor of the Island of Mohr.

Bartholomæi de Cotton, Monachi Norwicensis, Historia Anglicana, 449-1298. Edited by Henry Richards Luard, M.A., Fellow and Assistant Tutor of Trinity Col., Cambridge.

The author, a monk of Norwich, has here given us a Chronicle of England from the arrival of the Saxons in 449 to the year 1298, in or about which year it appears that he died. The latter portion of this history (the whole of the reign of Edward I. more especially) is of great value, as the writer was contemporary with the events which he records. An Appendix contains several illustrative documents connected with the previous narrative.

The Year Books of the Reign of Edward I.
Edited and translated by Alf. J. Horwood,
of the Middle Temple, Barrister-at-Law.

The volumes known as the 'Year Books' contain reports in Norman French of cases argued and decided in the courts of Common Law. They may be considered to a great extent as the 'lex non scripta' of England, and have been held in the highest veneration by the ancient sages of the law, and were received by them as the repositories of the first recorded judgments and dicta of the great legal luminaries of past ages. They are also worthy of the attention of the general reader on account of the historical information and the notices of public and private persons which they contain, as well as the light which they throw on ancient manners and customs.

Historia et Cartularium Monasterii S. Petri Gloucestrie. Edited by W. H. Hart, Esq., F.S.A., Membre Correspondant de la Société des Antiquaires de Normandie. Vols. I. and II.

This work consists of two parts, the History and the Cartulary of the Monastery of St. Peter, Gloucester.

The history furnishes an account of the monastery from its foundation, in the year 681, to the early part of the reign of Richard II., together with a calendar of donations and benefactions.

It treats principally of the affairs of the monastery, but occasionally matters of general history are introduced. Its authorship has generally been assigned to Walter Froucester, the twentieth abbot, but without any foundation.

Eulogium Historiarum sive Temporis. Edited by Frank Scott Haydon, B.A., formerly Scholar of Jesus College, Cambridge.

This is a Latin Chronicle extending from the creation to the latter part of the reign of Edward III., and was written by a monk of the Abbey of Malmesbury, in Wiltshire, about the year 1367. A continuation carrying the history of England down to the year 1413 was added, in the former half of the fifteenth century, by an author whose name is not at present known. The original Chronicle is divided into five books. It contains a history of the world generally, but more especially

of England down to the year 1366. The continuation extends the history down to the coronation of Henry V. The Eulogium itself is chiefly valuable as containing a history by a contemporary of the period between 1356 and 1366. The notices of events appear to have been written very soon after their occurrence. Among other interesting matter the Chronicle contains a diary of the Poitiers campaign, evidently furnished by some person who accompanied the army of the Black Prince. The continuation of the Chronicle is also the work of a contemporary and gives a very interesting account of the reigns of Richard II. and Henry IV. It is believed to be the earliest authority for the statement that the latter monarch died in the Jerusalem Chamber at Westminster.

Polychronicon Ranulphi Higden Monachi Cestrensis; together with the English Translations of John Trevisa, and of an unknown writer of the fifteenth century. Edited by Churchill Babington, B.D. Only 1 vol. published.

This is one of the many mediæval chronicles which assume the character of a history of the world. It begins with the creation, and is brought down to the author's own time, the reign of Edward III. Prefixed to the historical portion of the work is a chapter devoted to geography, in which is given a description of every known land.

To say that the Polychronicon was written in the fourteenth century is to say that it is not free from inaccuracies. It has, however, a value apart from its intrinsic merits. It enables us to form a very fair estimate of the knowledge of history and geography which well-informed readers of the fourteenth and fifteenth centuries possessed, for it was then the standard work on general history.

The two English translations, which are printed with the original Latin, afford interesting illustrations of the gradual change of our language, for one was made in the fourteenth century, the other in the fifteenth. The differences between Trevisa's version and that of the unknown writer are often considerable.

The Chronicle of England, by John Capgrave.
Edited by the Rev. F. C. Hingeston, M.A.,
of Exeter College, Oxford.

John Capgrave was prior of Lynn, in Norfolk, and provincial of the order of the Friars Hermits of England shortly before the year 1464. His Chronicle extends from the creation of the world to the year 1417. As a record of the language spoken in Norfolk (for it is written in English) it is of considerable value.

Johannis Capgrave Liber de Illustribus Henricis. Edited by the Rev. Francis Charles Hingeston, M.A. of Exeter College, Oxford.

This work is dedicated to Henry VI. of England, who appears to have been in the

author's estimation the greatest of all the Henries. It is divided into three distinct parts, each having its own separate dedication. The first part relates only to the history of the Empire, and extends from the election of Henry I., the Fowler, to the end of the reign of the Emperor Henry VI. The second part is devoted to English history, and extends from the accession of Henry I., in the year 1100, to the year 1446, which was the twenty-fourth year of the reign of King Henry VI. The third part contains the lives of illustrious men who have borne the name of Henry in various parts of the world.

Capgrave was born in 1393, in the reign of Richard II., and lived during the Wars of the Roses, for the history of which period his work is of some value.

Royal and Historical Letters during the Reign of Henry IV. Edited by the Rev. F. C. Hingeston, M.A. of Exeter College, Oxford.

This volume like all the others in the series containing a miscellaneous selection of letters, is valuable on account of the light it throws upon biographical history, and the familiar view it presents of characters, manners and events of the time. The period (1399 to 1413) required much elucidation; and this volume will materially contribute to that desirable end.

Chronicon Abbatie de Evesham ad Annum 1418. Edited by the Rev. W. D. Macray, M.A., Bodleian Library, Oxford.

The Chronicle of Evesham, here first printed, illustrates the history of that important monastery, from its foundation by Egwin, about A.D. 690, to the year 1418. Its chief feature is an autobiography, which makes us acquainted with the inner daily life of a great abbey, such as but rarely has been recorded. Interspersed are many notices of general, personal, and local history, which will be read with much interest. This work exists in a single MS., and is now for the first time printed.

Memorials of Henry V. I. Vita Henrici Quinti, Roberto Redmanno Auctore. II. Versus Rhythmici in laudem Regis Henrici Quinti. III. Elmhami Liber Metricus de Henrico V. Edited by C. A. Cole, Esq.

This volume contains three treatises which more or less illustrate the history of the reign of Henry V., viz.: A Life by Robert Redman; a Metrical Chronicle by Thomas Elmham, prior of Lenton, a contemporary author; Versus Rhythmici, written apparently by a monk of Westminster Abbey, who was also a contemporary of Henry V. These works are printed for the first time in the present volume.

Chronica Monasterii Sancti Albani. Edited by Henry Thomas Riley, M.A. 6 vols.

We have here a History of England, from the death of Henry III. to the death of Henry

V., written by Thomas Walsingham, precentor of St. Alban's and prior of the Cell of Wy-mundham, belonging to that abbey. Walsingham's work is printed in two vols. from MS. VII. in the Arundel Collection in the College of Arms, London, a manuscript of the fifteenth century, collated with MS. 13 E. IX. in the King's Library, in the British Museum, and MS. VII. in the Parker Collection of Manuscripts at Corpus Christi College, Cambridge.

In the third volume is a Chronicle of English History, from A.D. 1259 to 1306, attributed to William Rishanger, monk of Saint Albans, who lived in the reign of Edward I. This has been printed from the Cottonian Manuscript, Faustina B. IX. (of the fourteenth century) in the British Museum, collated with MS. 14 C. VII. (fols. 219-231) in the King's Library, British Museum, and the Cottonian Manuscript Claudius E. III. fols. 306-331.

In the same Volume—Annales Regni Scotiæ.

An account of transactions attending the award of the kingdom of Scotland to John Balliol by King Edward I. A.D. 1291-2. From MS. Cotton. Claudius D. VI. attributed to William Rishanger, above mentioned, but on no sufficient ground.

In the same Volume—Annales Angliæ et Scotiæ.

A short Chronicle of English History, from A.D. 1292 to 1300 by an unknown hand. From MS. Cotton Claudius D. VI.

In the same Volume—Willelmi Rishanger Gesta Edwardi Primi, Regis Angliæ.

A short Chronicle from A.D. 1297 to 1307. From MS. 14 C. I. in the Royal Library, and MS. Cotton Claudius D. VI. With an addition of Annales Regum Angliæ, probably by the same hand.

In the same Volume—Annales Regis Edwardi Primi (Fragmentum I.)

A fragment of a Chronicle of English History, A.D. 1299, 1300. From MS. Cotton Claudius D. VI.

Annales Regis Edwardi Primi (Fragmentum II.)

A fragment of a Chronicle of English History, A.D. 1295-1300. From MS. Claudius D. VI.

Annales Regis Edwardi Primi (Fragmentum III.)

A fragment of a Chronicle of English History, A.D. 1285-1307. From MS. 14 C. I. in the Royal Library.

In the fourth volume is a Chronicle of English History, by an anonymous writer, A.D. 1259-1296. From MS. Cotton Claudius D., VI.

In the same Volume. Johannis de Trokelowe Annales.

Annals of King Edward II., A.D. 1307-1323, by John de Trokelowe, a monk of St. Albans. From MS. Cotton Claudius D. VI.

In the same Volume. Henrici de Blaneforde Chronica.

A continuation of Trokelowe's *Annales*, A.D. 1323, 1324. From MS. C. Cotton Claudius D. VI.

In the same Volume. Annales Ricardi Secundi et Henrici Quarti, Regum Angliæ.

A full chronicle of English history, by an anonymous writer of St. Albans, A.D. 1392-1406. From MS. VII. in the Library of Corpus Christi College, Cambridge.

In the same Volume. Liber de Benefactoribus Monasterii Sancti Albani.

An account of the past benefactors of St. Albans, written in the early part of the 15th century. From MS. VII. in the Library of Corpus Christi College, Cambridge.

In the fifth volume begins a history of the Abbots of St. Albans, from A.D. 793 to the close of the fourteenth century, compiled by Thomas Walsingham, precentor of St. Albans. From MS. Cotton Claudius E. IV. in the British Museum.

Fasciculi Zizaniorum Magistri Johannis Wyclif cum Tritico, ascribed to Thomas Netter of Walden. Edited by the Rev. Walter Waddington Shirley, M.A. 1 vol.

This work derives its principal value from the fact that it is the only contemporaneous account of the rise of the Lollards. At the time when it was written, the disputes of the schoolmen had been extended to the field of theology, and they appear both in the writings of Wyclif and in those of his adversaries.

Wyclif's little bundles of tares are not less metaphysical than theological, and the conflict between Norminalists and Realists rages side by side with the conflict between the different interpreters of Scripture. The 'Fasciculi Zizaniorum' gives a good idea of the controversies which were carried on at the end of the fourteenth and the beginning of the fifteenth centuries.

Munimenta Gildhallæ Londoniensis. Liber Custumarum. Edited by Henry Thomas Riley, M.A., &c., &c., with translations of the passages in Norman-French, and glossaries. 2 vols.

This was compiled probably by various hands in the early part of the fourteenth century during the reign of Edward II. The manuscript, a folio volume, is preserved in the Record Room of the City of London; though some portion of it, in its original state, borrowed from the City in the reign of Queen Elizabeth, and never returned, now forms part of the Cottonian MS. Claudius D. II. in the British Museum. This work gives an account of the laws, regulations, and institutions in the City of London in the twelfth, thirteenth, and early part of the fourteenth centuries.

Munimenta Gildhallæ Londoniensis—Liber Albus; compiled by John Carpenter, Common Clerk of the City of London in the year 1419. Edited by Henry Thomas Riley, M.A. 2 vols.

The manuscript, a large folio volume, is preserved in the Record Room of the City of London. This work gives an account of the laws, regulations, and institutions of that City in the twelfth, thirteenth, fourteenth, and early part of the fifteenth centuries.

The Repressor of over much blaming of the Clergy. By Reginald Pecock, D.D., sometime Lord Bishop of Chichester. Edited by Churchill Babington, B.D., 2 vols.

The 'Repressor' may be considered the earliest piece of good theological disquisition of which our English prose literature can boast. The author was born about the end of the fourteenth century, was consecrated bishop of St. Asaph in the year 1444, and translated to the see of Chichester in 1450. While Bishop of St. Asaph he zealously defended his brother prelates from the attacks of those who censured the bishops for their neglect of duty. He maintained that it was no part of a bishop's functions to appear in the pulpit, and that his time might be more profitably spent, and his dignity better maintained, in the performance of works of a higher character.

Among those who thought differently were the Lollards, and it is against their general doctrines that the 'Repressor' is directed. Pecock took up a position midway between that of the Roman Church and that of the modern Anglican Church; but his work is interesting chiefly because it gives a full account of the views of the Lollards and of the arguments by which they were supported, and because it assists us to ascertain the state of feeling which ultimately led to the Reformation.

Apart from religious matters, the light thrown upon contemporaneous history is very small, but the 'Repressor' has very great value for the philologist, as it tells us what were the characteristics of the language in use among the cultivated Englishmen of the fifteenth century.

Pecock, though an opponent of the Lollards, showed a certain spirit of toleration, for which he received, towards the end of his life, the usual mediæval reward—persecution.

Narratives of the Expulsion of the English from Normandy, 1449-1450. Robertus Blondelli de Reductione Normannie. Le Recouvrement de Normandie, par Barry, Herault du Roy. Conférences between the Ambassadors of France and England. Edited, from MSS. in the Imperial Library at Paris, by the Rev. Joseph Stevenson, M.A., of University College, Durham.

We have here the narrative of an eye-witness who details with considerable power and

minuteness, the circumstances which attended the final expulsion of the English from Normandy in the year 1450. The history commences with the infringement of the truce by the capture of Fougères, and ends with the battle of Formigny and the embarkation of the duke of Somerset. The whole period embraced is less than two years.

Political Poems and Songs relating to English History, composed during the period from the Accession of Edw. III. to that of Ric. III. Edited by Thomas Wright, Esq., M.A., F.S.A. 2 vols.

These poems are perhaps the most interesting of all the historical writings of the period, though they cannot be relied on for accuracy of statement. They are very various in character; some of them are upon religious subjects, some may be called satires, and some give no more than a court scandal; but as a whole they present a very fair picture of society, and of the relations of the different classes to one another.

The period comprised is in itself very interesting, and brings us, through the decline of the feudal system, to what may be considered the beginning of our modern history. The songs in old English are of considerable interest to the philologist.

The Buik of the Chroniclis of Scotland; or, a Metrical Version of the History of Hector Boece. By William Stewart. Edited by William B. Turnbull, Esq. of Lincoln's Inn, Barrister-at-Law.

This is a metrical translation of a Latin Prose Chronicle, and was written in the first half of the sixteenth century. The narrative begins with the earliest legends, and ends with the death of James I. of Scotland, and the 'evil ending of the traitors that slew him.' Strict accuracy of statement is not to be looked for in such a work as this; but the stories of the colonisation of Spain, Ireland, and Scotland, are interesting, if not true; and the chronicle is valuable as a reflection of the manners, sentiments, and character of the age in which it was composed.

The peculiarities of the Scottish dialect are well illustrated in this metrical version of Boece's work, and the student of language will here find ample materials for comparison with the English dialects of the same period, and with modern lowland Scotch.

Letters and Papers illustrative of the Reigns of Richard III. and Henry VII. Edited by James Gairdner. Two vols. A collection of unpublished letters, state papers, and other documents referring to the transactions of these two reigns.

The papers are derived from MSS. in the British Museum, the Public Record Office, and other repositories, and were brought together by the editor after a protracted search. The period to which they refer is unusually desti-

tute of chronicles and other sources of historical information, so that the light obtained from these documents is of special importance. The principal contents of the volumes are some diplomatic papers of Richard III.; correspondence between Henry VII. and Ferdinand and Isabella of Spain; documents relating to Edmund de la Pole, Earl of Suffolk; and a portion of the correspondence of James IV. of Scotland.

Memorials of King Henry VII.: Bernard Andræ Tholosatis, de vita Regis Henrici Septimi Historia; necnon alia quædam ad eundem Regem spectantia. Edited by James Gairdner.

The contents of these volumes are—(1) a life of Henry VII., by his poet laureate and historiographer, Bernard André, of Toulouse, with some compositions in verse, of which he is supposed to have been the author; (2) the journals of Roger Machado during certain embassies on which he was sent by Henry VII. to Spain and Brittany, the first of which had reference to the marriage of the King's son, Arthur, with Catharine of Arragon; (3) two curious reports by envoys sent to Spain in the year 1505 touching the succession to the crown of Castile, and a project of marriage between Henry VII. and the Queen of Naples; and (4) an account of Philip of Castile's reception in England in 1506. Besides these, other documents of interest in connection with the period are given in an appendix.

Le Livre de Reis de Britannie e le Livre de Reis de Engleterre. Edited and translated by John Glover, M.A.

These two treatises, though they cannot rank as independent narratives, are nevertheless valuable as careful abstracts of previous histories, especially 'Le Livre de Reis de Engleterre.' Some various readings are given which are interesting to the philologist as instances of semi-Saxonised French.

It is supposed that Peter of Ickham must have been the author, but no certain conclusion on that point has yet been arrived at.

Chronicum Scotorum: A Chronicle of Irish Affairs. Edited by William M. Hennessy, M.R.I.A.

There is, in this volume, a legendary account of the peopling of Ireland and of the adventures which befell the various heroes who are said to have been connected with Irish history. The details are, however, very meagre both for this period and for the time when history becomes more authentic. The plan adopted in the chronicle gives the appearance of an accuracy to which the earlier portions of the work cannot have any claim. The succession of events is marked, year by year, from A.M. 1599 to A.D. 1150. The principal events narrated in the later portion of the work are the invasions of foreigners, and the wars of the Irish among themselves. The text has been printed from a

MS. preserved in the library of Trinity College, Dublin, and written partly in Latin, partly in Irish.

Liber Monasterii de Hyda; and a Chartulary of the Abbey of Hyde, in Hampshire, A.D. 455-1023. Edited by E. Edwards, Esq.

The 'Book of Hyde,' is a compilation from much earlier sources, which are usually indicated with considerable care and precision. In many cases, however, the Hyde chronicler appears to correct, to qualify, or to amplify—either from tradition or from sources of information not now discoverable—the statements which, in substance, he adopts. He also mentions, and frequently quotes from, writers whose works are either entirely lost or at present known only by fragments.

There is to be found, in the 'Book of Hyde,' much information relating to the reign of King Alfred which is not known to exist elsewhere. The volume contains some curious specimens of Anglo-Saxon and Middle English.

The War of the Gaedhil with the Gaill, or the Invasions of Ireland by the Danes and other Norsemen. The original Irish text. Edited, with translation and introduction, by James H. Todd, D.D., M.R.I.A., F.S.A.

The work, in its present form, is, in the editor's opinion, a comparatively modern version of an undoubtedly ancient original. That it was compounded from contemporary materials has been proved by curious incidental evidence. It is stated in the account given of the battle of Clontarf that the full tide in Dublin Bay on the day of the battle (April 23, 1014) coincided with sunrise; and that the returning tide in the evening aided considerably in the defeat of the Danes. The fact has been verified by astronomical calculations, and the inference is that the author of the chronicle, if not himself an eye-witness, must have derived his information from those who were.

The contents of the work are sufficiently described in its title. The story is told after the manner of the Scandinavian Sagas, with poems and fragments of poems introduced into the prose narrative.

Matthæi Parisiensis, Monachi Sancti Albani, Histøria Anglorum, sive ut vulgo dicitur Historia Minor. Item ejusdem Abbreviatio Chronicorum Angliæ. Edited by Sir Frederick Madden, K.H., F.R.S.

This work was written, as the chronicler tells us, in the year 1250. The history is of considerable value as an illustration of the period during which the author lived, and contains a good summary of the events which followed the Conquest. This minor chronicle is, however, based on another work (also written by Matthew Paris), which gives fuller details, and which has been called the 'Historia Major.' The chronicle now published, nevertheless, gives some information which is not to be found in the greater history.

Chronica Monasterii de Melsa a fundatione usque ad annum 1396, Auctore Thoma de Burton, Abbate. Accedit continuatio ad annum 1406, a Monacho quodam ipsius domus. Edited by Edward A. Bond, Egerton Librarian in the British Museum.

The Abbey of Meaux was a Cistercian house, and the work of its abbot is both curious and valuable. It is a faithful and often minute record of the establishment of a religious community, of its progress in forming an ample revenue, of its struggles to maintain its acquisitions, and of its relations to the governing institutions of the country. In addition to the private affairs of the monastery, some light is thrown upon the public events of the time, which are however kept distinct, and appear at the end of the history of each abbot's administration.

Only one volume of the work is at present published. It ends with the death of Richard of Ottringham, the seventh abbot, in the year 1225. The text has been printed from what is said to be the autograph of the original compiler, Thomas de Burton, the nineteenth abbot.

The Chronicle of Pierre de Langtoft, in French Verse. Edited by Thomas Wright, M.A., F.S.A., &c. Vol. i.

It is probable that Pierre de Langtoft was a canon of Bridlington, in Yorkshire, and that he lived in the reign of Edward I., and during a portion of the reign of Edward II. This chronicle is divided into three parts; in the first of which is an abridgment of Geoffrey of Monmouth's 'Historia Britonum,' in the second a history of the Anglo-Saxon and Norman kings, down to the death of Henry III., in the third a history of the reign of Edward I. The principal object of the work was apparently to show the justice of Edward's Scottish wars.

The language in which the chronicle is written is singularly corrupt, and is a curious specimen of the French of Yorkshire.

Descriptive Catalogue of Materials relating to the History of Great Britain and Ireland to the end of the Reign of Henry VII. By Thomas Duffus Hardy, Deputy Keeper of the Public Records.

The object of this work is to publish notices of all known sources of British history, both printed and unprinted, in one continued sequence. The materials, when historical (as distinguished from biographical), are arranged under the year in which the latest event is recorded in the chronicle or history, and not under the period in which its author, real or supposed, flourished. Biographies are enumerated under the year in which the person commemorated died, and not under the year in which the life was written. This arrangement has two advantages: the materials for any given period may be seen at a glance; and if the reader knows the time when an author

wrote, and the number of years that had elapsed between the date of the events, and the time the writer flourished, he will generally be enabled to form a fair estimate of the comparative value of the narrative itself. A brief analysis of each work has been added, when deserving it, in which the original portions are distinguished from those which are mere compilations. When possible, the sources are indicated from which such compilations have been derived. A biographical sketch of the author of each piece has been added, and a brief notice has also been given of such British authors as have written on historical subjects.

CALENDARS OF STATE PAPERS.

As early as the year 1800 a Committee of the House of Commons recommended that indexes and calendars should be made to the public records, and thirty-six years afterwards another Committee of the House of Commons reiterated that recommendation in more forcible words than those of the first Committee; but it was not until the incorporation of the State Paper Office with the Public Record Office that the present Master of the Rolls, Lord Romilly, found himself in a position to take the necessary steps for carrying out the wishes of the House of Commons.

On December 7, 1855, he stated to the Lords of the Treasury that although 'the records, state papers, and documents in his charge constitute the most complete and perfect series of the kind in the civilised world,' and although 'they are of the greatest value in an historical and constitutional point of view, yet they are comparatively useless to the public, from the want of proper calendars and indexes.'

Acting upon the recommendation contained in the Report of the House of Commons referred to above, he suggested to the Lords of the Treasury that to effect the object which he had in view it would be necessary for him to select from the literary world a few persons fully qualified to perform the work which he contemplated.

Their Lordships recognised the necessity of having these calendars prepared and printed, and they further empowered the Master of the Rolls to take such steps as might be necessary for this purpose.

The following calendars have been already published under his Lordship's directions:—

Letters and Papers, Foreign and Domestic of the Reign of Henry VIII., preserved in the Public Record Office, the British Museum, and elsewhere in England. Arranged and catalogued by J. S. Brewer, M.A. Vol. I., & Vol. II. (in two parts), from 1509 to 1518 inclusive.

These volumes contain summaries of all state papers and correspondence relating to the

reign of Henry VIII. now in the Public Record Office (formerly in Her Majesty's State Paper Office), and in the British Museum, the Libraries of Oxford and Cambridge, and other public libraries; and of all letters that have appeared in print in the works of Burnet, Strype, and others. In short, whatever authentic original material exists in England relative to the religious, political, parliamentary, or social history of the country during the reign of Henry VIII., whether despatches of ambassadors, or proceedings of the army, navy, treasury, or ordinance, or records of parliament, or appointments of officers, or grants from the crown, will be found in these volumes.

The Calendars of State Papers (Foreign Series) of the Reigns of Edward VI. and Queen Mary, from 1547 to 1558, in two volumes, by W. B. Turnbull, Esq., of Lincoln's Inn, barrister-at-law.

These volumes exhibit the negotiations of the English Ambassadors with the Courts of the Emperor Charles V. of Germany, of Henry II. of France, and of Philip II. of Spain. The affairs of several of the minor continental states here find various incidental illustrations of much interest.

The valuable papers descriptive of the circumstances which attended the loss of Calais merit a special notice. The progress of the wars in the north of France, into which England was dragged by her union with Spain, is narrated at some length. The domestic affairs of England are of course passed over in these volumes, which treat only of our relations with foreign powers.

A Calendar of the Domestic Papers of the Reigns of Edw. VI., Mary, and Elizabeth. Edited by Robert Lemon, Esq., F.S.A.

The first and second volumes are published, extending from 1547 to 1590.

Calendar of State Papers (Foreign Series), of the Reign of Elizabeth. Edited by the Rev. Joseph Stevenson, M.A., of University College, Durham.

These four volumes contain a descriptive catalogue of the foreign correspondence of Queen Elizabeth, from her accession, in 1558, to 1562, of which the originals, drafts, or contemporary copies, are deposited in the Public Record Office in London. These documents are of the greatest value as exhibiting the position of England at one of the most interesting periods of our history, in regard to our relations with France, Scotland, Spain, and Germany. They are also of especial importance as illustrating not only the external but also the domestic affairs of France during the period which immediately preceded the outbreak of the first great war of religion under the prince of Condé and the duke of Guise.

Mrs. Everett Green has completed *A Calendar of the Domestic Papers of the reign of James I.* in four volumes. The mass of historical matter thus rendered accessible to investigation is large and important. It throws new light on the following subjects—the Gunpowder-plot; —the rise and fall of Somerset; the particulars connected with the Overbury murder; the disgrace of Sir Edward Coke; and other matters connected with the reign of James I.

Calendar of State Papers (Domestic Series) of the Reign of Charles I., 1625–1636.
Edited by John Bruce, Esq., F.S.A. (9 vols., 1858–1866.)

This Calendar is in continuation of that of the Domestic State Papers of James I. It at present comprises only the first twelve years of the reign of Charles I., but is in active progress towards completion. It will extend to the Restoration of Charles II. It presents notices of a large number of original documents of great value to all inquirers into the history of the period to which it relates. Many of these documents have been hitherto unknown to men of letters.

The Calendar of the Domestic Papers of the Reign of Charles II., was commenced by Mrs. Everett Green in 1859.

Seven volumes, embracing the period between 1660 and 1667, have been published.

The Calendars above-mentioned relate to England. The following works has been undertaken for Scotland:—

Two volumes of State Papers relating to that portion of the United Kingdom, and embracing the period between 1509 and 1603, were edited by Mr. Markham Thorpe in 1858. In the second volume are notices of all the State Papers relating to Mary Queen of Scots now in the Public Record Office.

For Ireland the following works has been undertaken:—In the Series of the Calendars of State Papers published under the direction of the Master of the Rolls, one volume, embracing the period between 1509 and 1573, has been published under the editorship of Mr. Hans Claude Hamilton; and another volume, extending from 1574 to 1585, is nearly ready, and will be shortly published.

Mr. W. Noel Sainsbury is engaged on a Calendar of Colonial Papers. The first volume, relating to America and the West Indies from 1574 to 1660, was published in 1860. The second volume, relating to the East Indies, China, and Japan, from 1513 to 1616, appeared in 1862, and the third volume is now in preparation. This Calendar includes an analysis of all papers from the three great archives in the Public Record Office, the India Office, and the British Museum. The East India Papers in the Public Record Office are calendared to the year 1623; those relating to the same subject in the Domestic Correspondence to 1625; and in the Foreign Correspondence to 1620;

the Court Minutes of the East India Company to 1618, and the Original Correspondence in the India Office to 1617. A vast number of undated papers have likewise been dated and arranged.

Besides the works already mentioned, the attention of the Master of the Rolls has been called at various times to the extreme importance of certain documents in the archives and libraries of foreign countries.

It is well known that valuable papers are preserved at Simancas, at Venice, and at Paris, containing the correspondence of ambassadors in England with their respective courts—a correspondence without the knowledge of which no satisfactory history of this country could be written.

In the year 1861, Mr. Bergenroth was appointed to compile a Calendar of Papers at Simancas, and Mr. Rawdon Brown, in 1862, at Venice. The importance of their researches, and the favour with which they have been received by the public, justify the belief that the small annual grant placed by the Treasury at the disposal of the Master of the Rolls for these purposes has been most judiciously applied.

Mr. Bergenroth is engaged in compiling a Calendar of the Papers relating to England preserved in the archives of Simancas in Spain, and the corresponding portion removed from Simancas to Paris. It has been deemed essential to the completion of his work that Mr. Bergenroth should visit Madrid, and examine the papers there bearing on the reign of Henry VIII. Mr. Bergenroth's first volume, published in 1862, contains the Spanish papers of the reign of Henry VII., and his second volume will embrace the papers of the first portion of the reign of Henry VIII.

Of the papers in the Venetian archives, Mr. Rawdon Brown has already published one volume of his *Calendar*, extending from 1202 to 1509, and has made considerable progress in his second volume. Mr. Brown's researches have brought to light a number of important documents relating to the various periods of English history, and his contributions to our historical literature are of the most interesting and important character.

Two volumes of a *Calendarium Genealogicum* have also been published under the editorship of Mr. Charles Roberts. It is a work of great value for elucidating the early history of our nobility and landed gentry.

Liber Censualis, commonly called *Domesday Book*.

This important and unique survey of the greater portion of England* is the oldest and

* For some reason left unexplained, many parts were left unsurveyed; Northumberland, Cumberland, Westmoreland, and Durham, are not described in the survey; nor does Lancashire appear under its proper name; but Furness, and the northern part of Lancashire, as well as the south of Westmoreland, with a part of Cumber-

most valuable record in the national archives. It was commenced about the year 1084, and finished in 1086. Its compilation was determined upon at Gloucester by William the Conqueror, in council, in order that he might know what was due to him, in the way of tax, from his subjects, and that each at the same time might know what he had to pay. It was compiled as much for their protection as for the benefit of the sovereign. The nobility and people had been grievously distressed at the time by the king bringing over large numbers of French and Bretons, and quartering them on his subjects, 'each according to the measure of his land,' for the purpose of resisting the invasion of Cnut, King of Denmark, which was apprehended. The commissioners appointed to make the survey were to enquire the name of each place; who held it in the time of King Edward the Confessor; who was the present possessor; how many hides were in the manor; how many ploughs in demesne; how many homagers; how many villeins; how many cottars; how many serving men; how many free tenants, how many tenants in soccage; how much wood, meadow, and pasture; the number of mills and fish-ponds; what had been added or taken away from the place; what was the gross value in the time of Edward the Confessor; the present value; how much each free-man or soc-man had; and whether any advance could be made in the value. Thus could be ascertained who held the estate in the time of King Edward; who then held it; its value in the time of the late king; and its value as it stood at the formation of the survey. So minute was the survey, that the writer of the contemporary portion of the Saxon Chronicle records, with some asperity—'So very narrowly he caused it to be traced out, that there was not a single hide, nor one virgate of land, nor even, it is shame to tell, though it seemed to him no shame to do, an ox, nor a cow, nor a swine was left, that was not set down.'

Domesday Survey is in two parts or volumes. The first, in folio, contains the counties of Bedford, Berks, Bucks, Cambridge, Chester and Lancaster, Cornwall, Derby, Devon, Dorset, Gloucester, Hants, Hereford, Herts, Huntingdon, Kent, Leicester and Rutland, Lincoln, Middlesex, Northampton, Nottingham, Oxford, Salop, Somerset, Stafford, Surrey, Sussex, Warwick, Wilts, Worcester, and York. The second volume, in quarto, contains the counties of Essex, Norfolk, and Suffolk.

Domesday Book was printed *verbatim et literatim* during the last century, in consequence of an address of the House of Peers to King George III. in 1767. It was not, how-

land, are included within the West Riding of Yorkshire. That part of Lancashire which lies between the Ribbles and Mersey, and which at the time of the survey comprehended 688 manors, is subjoined to Cheshire. Part of Rutland is described in the counties of Northampton and Lincoln.

ever, commenced until 1773, and was completed early in 1783. In 1860 Her Majesty's government, with the concurrence of the Master of the Rolls (Lord Romilly), determined to apply the art of photozincography to the production of a facsimile of the whole of the Domesday Survey, under the superintendence of Colonel Sir Henry James, R.E., director of the ordnance survey at Southampton, who had devoted himself to the improvement of that scientific process. The work was completed in 1863.

Facsimiles of National Manuscripts.

The first part extends from William the Conqueror to Henry VII., and contains autographs of the kings of England, as well as of many other illustrious personages famous in history, and some interesting charters, letters patent, and state papers. The second part, for the reigns of Henry VIII. and Edward VI., consists principally of holograph letters and autographs of kings, princes, statesmen, and other persons of great historical interest, who lived during those reigns.

Reports of the Deputy Keeper of the Public Records.

By Act of Parliament made and passed 14th August, 1838, entitled 'An Act for keeping safely the Public Records,' it is enacted that 'the Deputy Keeper of the Records, under the direction of the Master of the Rolls, shall once in every year report to Her Majesty the proceedings had in the execution of this Act; and every such report shall be signed by the Deputy Keeper of the Records, and Master of the Rolls, and shall be laid before both Houses of Parliament.'

In compliance with this Act, the Reports of the Deputy Keeper have been annually made and laid before Parliament. They usually include, in addition to the statement of proceedings in the Public Record Office, appendices containing inventories and calendars of records made during each year to which they relate, and refer to documents interesting and useful to the public generally. They have been found especially valuable in assisting persons engaged in genealogical, topographical, and antiquarian pursuits, and are of great practical use to Government departments having papers deposited in the Public Record Office.

The volume sent to the Paris Exhibition contains the Reports of the present Deputy Keeper of the Public Records, with an index, extending from 1862 to 1865 both inclusive.

Report of the Deputy Keeper of the Public Records to the Master of the Rolls, upon the Venetian Archives.

Report of the Deputy Keeper of the Public Records and the Rev. J. S. Brewer to the Master of the Rolls, upon the Carte and Carew Papers in the Bodleian and Lambeth Libraries.

ROMILLY, M.R.

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BOOKS AND NEW EDITIONS OF BOOKS PUBLISHED IN GREAT BRITAIN DURING 1866.

A few observations may, perhaps, be permitted here, as introductory to an exhibition unique, it is believed, in its character, and of singular significance. It consists of the books printed in Great Britain and Ireland during the year 1866.

It was a suggestion of the Imperial Commission that Her Britannic Majesty's Commissioners should cause to be prepared for exhibition some sort of compendious history of the social progress of Great Britain during the past ten years. If this proposal had been as practicable in its nature as it was vast and comprehensive in its design, or if Her Majesty's Commissioners had had already enlisted and awaiting their command, a staff of encyclopedists as rarely gifted as that celebrated corps whose genius once shed a dazzling glare upon the illustrious country which produced them—the result might, perhaps, have been (but scarcely in time for the Exhibition) a series of volumes exhibiting—in order to be even portable—a phenomenon of compression to achieve which some application of intellectual hydraulics has yet to be contrived. The history of a nation's progress is the history of its mechanical arts and manufactures; of its sciences abstract and applied; of its railroads and its telegraphs; its commerce, its finance, its laws; its ever varying social customs; its literature, its amusements, its religion, and a thousand other elements in civil life, for the enumeration of which time and space are not enough. The accomplishment, therefore, of the proposed compilation within anything like convenient limits was held to be impracticable. But, forasmuch as all the topics just adverted to, and which in fact constitute a nation's history, are more or less directly dealt with by the various emanations of the press, it was believed that to submit for exhibition the entire produce of the British press in the last completed year would be no inconsiderable contribution towards, or substitute for, the compendium suggested. From one year's books it is not difficult to draw the most important historical inferences respecting the preceding decade; and there can be scarcely a more trustworthy or intelligible evidence and index of the progress a nation has been making than the books it is producing. Hence the collection of near 5,000 volumes here presented.

For securing this collection in the readiest and most effective way, recourse was naturally had in the first instance to persons eminent in the trade. From various causes, however, needless to detail, difficulties were found to interpose themselves in the way of concerted professional action by the publishers. But as no such hindrance betrayed itself as likely to embarrass their co-operation with the state, the charge of making the collection devolved upon

the department which, from its relations with the Paris Exhibition, could most conveniently sustain it.

From the preceding remarks it will have been gathered that the object of this collection was not so much to make a typographical display in its merely mechanical and industrial sense as to present at one view, accessible to closer and individual inspection, if required, the entire *supply*, inferring therefrom, proximately at least, the entire *demand* in this department of British enterprise within the limits of a single year. The object is intellectual, material, literary, and commercial. Accordingly the endeavour has not been to secure books of the cleanest, the clearest, and the most conspicuous types; illustrated by the most exquisite embellishments, and dressed in the most decorated bindings—though there will be found in the collection not a few specimens of binding, of embellishment, and typography such as, perhaps, no other country can excel—but the aim has been to secure a copy of every publication whatever, however imposing and however trivial (excepting periodicals, which have been otherwise and most competently provided for), the only condition of acceptance being, that it should be the *bonâ fide* produce of the year specified.

In fulfilment of this project, towards the close of the past year proposals were addressed—so far as it was possible to obtain their names and addresses—to every publisher in Great Britain and Ireland, inviting their sympathy and co-operation in this which was represented to them, not as a commercial scheme, but as a national enterprise. It was suggested to them to promote the purpose of Her Majesty's Commissioners by contributing, each publisher for himself, the loan, for exhibition, of a copy of every work which he had published during the year prescribed.

There is no section of the commercial—or, indeed, of any other department of the community—which has more largely enjoyed, or more honourably merited, that respect, esteem, and pride, with which England regards her mercantile denominations than the guild of publishers. Amply consistent with their high repute was the promptitude, the courtesy, the substantial liberality of their response to this appeal. They fully understood that the particular exhibition proposed was to be not so much a trade display as a national phenomenon. As a commercial body they had comparatively little interest (in the less exalted sense of the word interest) in this miscellaneous method of presenting their productions to the eyes of the world. The pride of each firm in its own mercantile celebrity appeared to be extinguished by that of the printer in his craft. The contributions to the collection, which

poured in from every House, almost without exception, were overwhelming in number, valuable in amount, and, it must be added, for the most part very handsome in appearance; and it was gratifying to observe that of the 184 contributors to this loan of books, many of which were of very costly character, not one requested or suggested any special prominence of position for his own contingent; not one appeared to regard the British book display of 1866 as anything more contracted in its scope and dimensions than an exhibition of national intellect, intelligence, and enterprise.

It might seem invidious to select names for special mention where all have behaved with indistinguishably obliging liberality. But it would be almost the prudery of impartiality to decline allusion to the varied and valuable loans of Messrs. Blackie and Son; or Messrs. Bell & Daldy; or those from the long-renowned emporium of social romance in Burlington-street. Nor is it anything less than a phenomenon of the 19th century which we discern in the indescribably miscellaneous, but exceedingly interesting popularities issuing from Belle Sauvage-yard; from the neighbouring press of Messrs. Routledge; from the three firms of Messrs. Nelson and Son; Nimmo; and Oliver & Boyd of Edinburgh, with those of Messrs. Duffy, and Messrs. Richardson of Dublin. The classical batch of Messrs. Whittaker can scarcely escape observation; nor that of Messrs. Macmillan, whose name may indicate every kind of publication excepting what is worthless. The consignments—not more various than valuable and important, of Messrs. Chapman & Hall; Smith & Elder; Sampson Low & Son; of the Religious Tract Society; and of the Society for Promoting Christian Knowledge, were amongst those most courteously and promptly sent. The loan of Mr. Hotten is distinguished as one of the most quaint and curious, as is that of Messrs. Day & Son for its artistic brilliancy. The ponderous and costly Bibles and Prayer Books from the Oxford Press, from Messrs. Eyre & Spottiswoode, and from Messrs. Bagster, present magnificent specimens of typography; and the Faculties of Law and Physic are liberally represented, the latter by Messrs. Churchill, and the former by Messrs. Stevens. Want of space compels the suppression of several names which it seems a kind of injustice to omit; but nobody will grudge a grateful allusion to the contribution of Messrs. Longman—exceeding in magnitude and importance even what might have been expected—or to that from Albemarle Street more celebrated through the larger part of a century for its famous publishing House than for its palatial hotels and its patrician mansions.

It will be observed that the contributing publishers amount in number to 184; of these 141 are metropolitan, and 43 provincial. Of the metropolitan, Dublin furnishes 2; Edinburgh 6; London 133. The volumes contributed from the provinces amount to 335; those from Dublin to

129; from Edinburgh to 279; and from London 4,009. The aggregate number of volumes is 4,752 and their value at selling prices about 1,500*l*.

In disposing of the 4752 volumes lent by 184 contributors, it would obviously have been impracticable that works of such exceedingly miscellaneous size and character, should be arranged so as to exhibit them severally as the productions of their respective publishers. Most of the groups, moreover, thus discriminated would have been too small for such separate and independent exhibition without a disregard of symmetry which would have been an eyesore. They have been sorted, therefore, according to subject; keeping together those of every individual publisher so far as was practicable; but not sacrificing all propriety of appearance to the fancy of maintaining an unbroken fellowship and proximity for the productions of the same press.

The subjoined classification of the subjects of the exhibited volumes of the year, although not, perhaps, absolutely and perfectly complete as an exact exposition of what that year has produced, indicates, probably, with tolerable correctness and even with proximate precision, the proportions of the various departments of publication upon which the Press has been employed. Thus, though some very few or very obscure volumes of history, of science, of poetry, or of prose-fiction, published during the year may not have been received, it is not likely that such omissions in any single branch should be so numerous as to disturb its relative position with regard to others, or lead to any seriously fallacious estimate as to their respective proportions to the rest. But when it is considered that the generally computed number of publications in the year was about 4,200, and that, after the careful exclusion of duplicates and volumes bearing an earlier date, we have accumulated not fewer than 4,752, it seems hardly likely that many of the year's productions can have been withheld. It would be rash to guarantee that where several duplicates and works of previous date have attracted attention and so have been rejected, a very few may not have *escaped* it, and so have been admitted; but it may safely be asserted that the number of such volumes accidentally retained and included in the above total, must be so exceedingly small as not appreciably to affect any statistical inferences which might be desired.

In computing any such statistics in connection with the literary activity of Great Britain, it may be superfluous to remark that a considerable number of the volumes hereafter classified must be eliminated before a residuum of literature properly so called can be arrived at. Educational works, for instance, which from the baby's picture book to the most recent treatise on the Differential Calculus, are only the mechanism and the means and preparation for literature and science can with no more

propriety be called literature than the text books and reports of law and physic can be called the actual practice and administration of those faculties. It not unfrequently occurs, indeed, that in able hands the dryest scientific subject becomes bedewed by the humour of genius, and the line of distinction referred to is consequently sometimes difficult to trace. But, generally speaking, if we strike out mechanical arts, commerce, directories, agriculture, and all that claims but slender connexion with literature proper, it is probable that of 4,752 volumes not more than half will remain to be classed with History, Biography, Travels, Prose-Fiction, Poetry, a small proportion of religious writing and a few other kinds to which we usually ascribe the name of literature.

An observation will be afterwards made upon the importance and the difficulty of ascertaining the proportion of reprints to new publications. There is one subject, however, in which the difficulty is somewhat less and the interest perhaps, somewhat greater of attaining this proportion than in others. In poetry the new publications are so very few that of 500 volumes attributed to the past year, 5 per cent. new ones would be a liberal calculation, leaving 475 reprints. Of the reprints of deceased authors in a single year it is a little curious to observe the proportions:—

Chaucer	2	editions
Shakspeare's plays	15	"
" smaller poems . . .	6	"
Dryden	2	"
Butler	2	"
Milton	8	"
Pope	5	"
Thomson	4	"
Goldsmith	7	"
Gray	3	"
Cowper	13	"
Wordsworth	8	"
Scott	12	"
Southey	1	"
Rogers		
Crabbe		
Campbell		
Moore	8	"
Shelley	3	"
Byron	11	"

Of living poets, or of those but recently deceased, such a return as the above would be alike invidious and fallacious.

With regard to reprints generally it may be observed that while a precise and trustworthy estimate would be exceedingly difficult—without other means, at least, than those at immediate command—considerable pains have been taken to arrive at some proximate conclusion; and it is believed that the following will not be far from correct for the past year.—

New publications	3399
Reprints	1353
Total publications . . .	4752

It would be interesting if the difficulty just

adverted to could be so far surmounted as to ascertain the circulation of different classes of books in different classes of society, as an element in judging of the prevailing taste and intellectual condition of the community. But since it is the reprints alone which indicate the actual demand for books, except so far as it may be vaguely inferred from the supply, and since it would be laborious to a degree almost impracticable, to distinguish with precision republications from first editions, no pretension is here made to any minute and unimpeachable conclusion of this kind. It may, however, be stated generally that large numbers of readers are found for standard works of poetry and fiction, and that well known books of devotion command a ready and a steady sale. Among poets, Shakspeare, Milton, Pope, Goldsmith, Thomson, Cowper, Burns, Moore, Wordsworth, Scott—and, notwithstanding an impression in some quarters to the contrary, Byron, appear to be perused, if perusal may safely be inferred from purchase, by each successive generation. That great series of Romances which have now survived their wondrous author five-and-thirty years, continue to sustain an undisputed celebrity, which more recent competitors are generous enough to emulate without envy. They are now republishing in an extraordinarily cheap form, and appear to be penetrating into a lower stratum of society than that for which they were originally intended; and sixpence will now procure, printed in pleasantly legible type, the entire story of Waverley, of Jeanie Deans, of Old Mortality, or Ivanhoe, which less than 'sixty years since' was eagerly purchased at a guinea and a half. It may be conjectured that in theological literature the old and well known works still enjoy a popular preference. Of the large number of original compositions included in the present list, many are collections of sermons written for the purpose of delivery and only incidentally printed. Printed, it is true, "by desire"; a desire, no doubt, within its professed range, in every case, sincerely and affectionately entertained; but purchased,—if such an inference from the apparently scanty proportion of reprints be not unwarrantable,—more out of local and personal considerations than from any vehement impatience in the general public to possess them. To this conjecture there are, of course, several brilliant, admirable and obvious exceptions. But apart from such exceptions this is a case of artificial cause for a supply which may be supposed considerably to exceed the demand. The much smaller number of books of controversial divinity is addressed to a limited audience; and many of them originate in zeal for the propagation of particular doctrines rather than the hope of profit or of literary fame. Prayers, hymns, and generally manuals of devotion, scarcely fall within the category of literature. New publications in verse represent a craving for fame or for sympathy on the part of the writers

rather than a general appetite for poetry. It is well known that excepting in the case of a few eminent writers, volumes of poems are printed at the expense of the author, as publishers have no sufficient hope of remuneration to induce them to undertake the risk. Thus theology—especially controversial theology—and poetic composition prove the intellectual activity of writers; but excepting when new editions are required, the number of such works is but an uncertain or even a fallacious clue to the taste and appetites of readers.

The lighter branches of literature are fortunate in a nearer approach to an equilibrium between demand and supply, so that either may be regarded as a pretty correct exponent of the other. History, and the materials of history, consisting of biographical memoirs and recollections, are generally written or compiled in order to be read. The same remark applies to voyages and travels, and especially to fiction. Novels, tales, and romances (including those adapted to more youthful readers) form about one *fifth* part; and, even independently of the juvenile portion, they form a *ninth* part of the total publications of the year; and the number of copies *circulated*, and presumably, therefore, read, would bear a much larger proportion than this to the entire issue of books. If this were the place for discussing the comparative value of different kinds of literature, it might probably appear that the appetite for fiction is the simplest, as it is the earliest and most universal form of the appetite for knowledge; and that novels, in teaching something of life and character through the attractive auxiliaries of plot and incident, reach a superficial audience that very likely would read nothing else. As has already been remarked, the commercial activity of publishers is most spirited and enterprising; especially when it is considered not only that newspapers and other periodicals exceed the rank and file of books in circulation, as much as novels outnumber philosophical discourses—but that the average newspaper is now itself a volume of history, biography, social incident, and miscellaneous information—possibly sometimes of fiction—of no inconsiderable bulk. Even the books which are not strictly literary works are interesting as modes of intercommunication among classes or professions which have in many cases intellectual interests. The conversation of multitudes can only be carried on in print, and the rapidity and variety of their utterances bear a certain relation to spontaneous energy on one side and to receptive intelligence on the other. Silence is no doubt divine. But its throne is on the alpine granite peaks, or among the stars; or, in any case, at some considerable altitude above the children of Eve and their busy working world; and rigorously maintained as a persistent habit here below, this sublime reticence would conduce little to the sympathy or to the mutual improvement of mankind. Books are our greatest and most effective speakers; their

audiences are the largest and their voices reach the farthest.

As in political economy the distribution of wealth is not less important than its creation, the diffusion of knowledge by numerous publications, adapted to all degrees of intelligence, may be as useful as discovery or original thought. Criticism censures plagiarists, and holds up to unsparing ridicule the dealers in common place: but for the great purposes of popular instruction, second-hand learning is as good as if it were derived immediately from the source. There is not one of the 4,752 volumes in this Exhibition which is not capable of teaching some reader something; and the range of human apprehension is so varied and extensive, that it is possible that each book, the most childish or the most abstruse, would communicate with some individual mind in the most intelligible way by which that mind is accessible. Food for mind as well as food for body requires bulk as well as nutritive essence; and the quality of the vehicles in which that essence will be most effectively conveyed to the various tastes, and appetites, and digestions, and assimilations of the *tot sententiæ* of mankind will vary—perhaps infinitely; but certainly it will vary to a degree incalculably exceeding the variety—the contrasts—the heterogeneity of the 4,572 volumes herewith presented as the substantial representative of the produce of the British Press in the year 1866.

W. H. BROOKFIELD.

South Kensington Museum,
March, 1867.

*Summary of Books lent by the Publishers for
the Paris Exhibition of 1867.*

	No. of vols.
Architecture	25
Classical	44
Commercial	114
Directories, Dictionaries, Lists, and Guides	101
Education	657
Essays and Didactic	71
Prose-fiction	1007
History, Memoirs, and other Narrative professing to be true	294
Illustrated Works	164
Law	34
Mechanical Arts and Engineering	36
Miscellaneous	185
Natural History	82
Naval and Military; Politics and Social Science	53
Pastime	69
Poetry	500
Religion	932
Science; Medicine, &c.	189
Tillage, Live-stock, and Domestic Economy	95
Voyages, Travels, and Topography	100
Total volumes of 1866 lent for } exhibition	4752

ARCHITECTURE.		No. of vols.
Plans for Farm Homesteads, Cottages, &c.		8
Accounts of celebrated Edifices		7
Various		10
		25

CLASSICAL.		
Latin (exclusive of School Books)		13
Greek		17
Translations		14
		44

COMMERCIAL.		
Tables—Tariffs—and Almanacs		29
Banking and Currency		4
Marine		5
Insurance—Dilapidations—Compensa- tions, &c.		4
On Financial Bubbles		3
Forms of Diary—Stock Books—Cellar Books, &c.		67
Iron and Builders' Circulars		2
		114

DIRECTORIES, DICTIONARIES, LISTS, AND
GUIDES.

Concordances and Bible Dictionaries	8
Dictionaries—English	10
„ Scottish	1
„ French	5
„ Latin, Hebrew, Syriac, and various	16
„ of Classical Quotations	1
„ of Slang	1
„ of Dates, Geography, Sci- ence, and various	24
„ Geographical	5
Directories—London, Provincial, and Local	19
Peerage, Baronetage, Gentry, Clergy, Public Schools, and other Calendars	12
Hand-Books, Year-Books, and Guides, Local and General	63
Philology—Archbishop Trench, Müller's Lectures, &c.	7
	101

EDUCATION.		
Stitched 132 (20 counted to a volume)		6
Nursery Picture Books, Ornamental Alphabets, &c.		229
Religious Narrative and Inculcation		40
Arithmetic, Geometry, &c.		36
French		36
English Grammar, Composition, and Reading Books		95
Latin		34
German		14
Greek		20
Italian		6
Spanish		4
Industrial		1

ESSAYS AND DIDACTIC.

	No. of vols.
General Information, Natural History, &c.	57
School Registers	4
Poetry and Music	10
Deaf and Dumb Vocabulary	1
History	64
Moral Philosophy, Logic, &c.	34
Various	37
	187

PROSE-FICTION.

Novels and other fiction for adult readers	528
Juvenile fiction	479
	1007

HISTORY, MEMOIRS, AND OTHER NAR-
RATIVE PROFESSING TO BE TRUE.

British and general History	108
Colonial	12
Continental	8
Ecclesiastical	23
Ancient	12
Local	18
Biographies	98
Diaries and Letters	25
	294

ILLUSTRATED WORKS OR RELATING TO

THE FINE ARTS.

Sacred	19
Landscape and Topography	10
Plants, Animals, and Natural History	18
Antiquarian, Gems, &c.	7
Poems, Drama, and Prose Legends	28
Ballads and Domestic	7
On Wood Engraving and Painted Glass	5
Heraldry	12
History of, and Lectures on Painting	6
Oriental	3
Costumes	2
Central Italian Architecture	2
Fac-similes from M. Angelo and Raphael	2
Decorative, Illuminating, Monograms, &c.	10
Humorous	10
Miscellaneous	23
	164

LAW.

Law	34
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MECHANICAL ARTS AND ENGINEERING.

Cyclopedias	3
Steam Engine	2
Coal and Gas	4
Engineering	17
Various	11

MISCELLANEOUS.

	No. of vols.
The Miscellaneous works of Washington Irving, of Professor Wilson, and of J. W. Gilbert, &c.	28
Magazines, Year Books, and selections for oral reading	18
The original Joe Miller, and other Jest Books	34
Books of Quotations, Proverbs, &c.	5
Complete Letter Writers, both commercial and sentimental; Books on Freemasonry, Stamp Collecting, and Etiquette; and 'Barnum on Humbugs'	13
Sign Boards; Antiquarian	6
Phonography	6
Pocket Books	3
Various	72
	185

NATURAL HISTORY.

(Exclusive of School Books.)

Animal	35
Vegetable	20
Precious Stones	1
Colonial Flora	4
Various	15
Tabulated Systems	7
	82

NAVAL AND MILITARY, POLITICS AND SOCIAL SCIENCE.

Speeches, &c.	8
Politics (general)	14
Political Economy	3
Social Science	14
Various	13
Pamphlets (counting 14 to the volume)	1
	52

PASTIME.

Sport and Out-door Amusements	27
Domestic Games, &c.	42
	69

POETRY.

Earlier than present Century	171
Present Century	198
Sacred	32
Various	84
Song-Books, Extracts, Books of Quotations, &c.	15
	500

RELIGION.

Bibles with or without Commentary	25
New Testaments " "	8
Books of Common Prayer	35
" " " in French	5

Commentaries on Holy Scripture; illustrations geographical and historical, extracts, digests, and paraphrases	95
Chant-Books and Hymns, with or without Music	49
Meditations and Devotions for Public or Private Use	52
Memoirs, Travels, and other Narratives	29
Fiction	46
Lectures and Sermons	77
Juvenile	18
Missionary	17
Temperance	17
Pilgrim's Progress	7
Sewed Librettes, counting 20 to the vol. (200)	10
Pamphlets, counting 10 to the vol. (150)	15
Roman Catholic	109
Miscellaneous, impossible to class	243
Almanacs and Pocket-Books	3
	932

SCIENCE.

Medicine and Pathology	87
Anatomy	4
Chromolithograph of Morbid Skin	1
Veterinary	5
Medical Jurisprudence	1
Mathematics and Mechanics	18
Chemistry	12
Astronomy and Geography	15
Meteorology	11
Light, Electricity, Magnetism, and Pneumatics	9
Geology	8
Man	3
Miscellaneous	15
	189

TILLAGE, LIVE-STOCK, AND DOMESTIC ECONOMY.

Garden, Fruit and Flowers	31
Agriculture	5
Live-Stock	8
Bees	2
Housekeeping	17
Domestic Medicine	3
Cookery	23
Children	4
Toilette	1
Brewing	1
	95

VOYAGES, TRAVELS, AND TOPOGRAPHY.

Voyages, Travels, and Adventures	70
Topography—British	4
" —Colonial, &c.	10
" —Continental	5
" —Sacred	4
" —Various	7
	100

SCIENCE AND ART DEPARTMENT.

REPORTS PUBLISHED BY THE CHARITABLE, BENEVOLENT, AND VOLUNTARY SOCIETIES AND INSTITUTIONS OF GREAT BRITAIN AND IRELAND.

A collection of these Reports will be found arranged under Group X. Class 89.

SOUTH KENSINGTON MUSEUM, LONDON.

SPECIMENS OF THE PERIODICAL AND EPHEMERAL LITERATURE PUBLISHED IN THE UNITED KINGDOM DURING THE YEAR 1866.

There has been no attempt made, up to this time, to represent literature in any of the great exhibitions which have been held in London and Paris. Typography merely, natural produce, manufactures, and art, have all figured on such occasions, but literature (perhaps because of its being a thing the essential part of which it was so difficult to exhibit) has till now invariably been omitted on every occasion when an exhibition of the sort has been held.

On November 8, 1865, the French Minister of Public Instruction, addressed a report to the Emperor, in which he urged strongly that some attempt should be made, on the occasion of the Paris exhibition of 1867, to represent those less material results of our civilisation which, though not so brilliant and startling to the eye as the achievements of science or the productions of art, are, perhaps in some respects, as important as either the one or the other. Acting upon the suggestion contained in these words, The Committee of Council on Education decided that, on the occasion of this great exhibition at Paris, an attempt should be made to show, practically, and by that strongest of all appeals, an appeal to the senses, what literature has done, and is doing, towards advancing the civilisation of the English people.

The Collection of Books has been made by the Rev. W. H. Brookfield. The present collection is one of periodicals of all kinds. It would have been possible, no doubt, within the limits of a report such as this to have given in figures the statistics of our periodical literature. It would have been possible to state that so many newspapers were published weekly or daily within the limits of the British dominions, or that such and such were the numbers of our religious, scientific, commercial, or other periodicals. But would this have given to any one of us so distinct an idea of the scale on which the periodical literature of this country has developed itself as is conveyed by this exhibition of the printed sheets themselves, displayed in numbers before our eyes?

It is believed that this is the first time that such a collection as this has been made, or at any rate exhibited. No doubt it fails in some

respects of being complete, but no pains have been spared to make it so, and the result is, it will be admitted, sufficiently remarkable. Of newspapers alone there are here between 1100 and 1200 different specimens, all in active circulation at the same time. Of these about 700 are provincial, that is to say they are newspapers published in our country towns. Many of these towns support more than one journal. In Liverpool for instance there are no less than 15 newspapers published. There are 7 in Birmingham and the same number in Bristol and Brighton. In addition to these there are 42 Welsh papers, about 135 Scotch, and about 125 Irish. The London newspapers, daily and weekly, are about 45 in number; but in making this statement it must be understood that the word newspaper is used only in its strictest sense, and that immense numbers of journals which deal with some special subject, or appeal to some special section of the public are not included. Theological papers such as the Record, the Guardian, or the Tablet; Commercial newspapers as the Economist or the Money Market Review; Sporting and Theatrical periodicals such as Bell's Life or the Era; Local journals representing the different districts of London and the suburbs, the Islington Times, for instance, or the Bayswater Chronicle, none of these, nor even such political and general periodicals as the Spectator or the London Review, are included among what are here spoken of as the London Newspapers. If a large interpretation were given to the term and such class-journals as have been alluded to above were included among the regular newspapers, the numbers of these last would be swelled to three or four times the amount at present set down under that heading. It has appeared, however, more advisable in classifying the present collection of newspapers and periodicals to remove those journals which treat of special topics from among the ordinary newspapers and to place them according to the subjects to which they relate—Religious, Scientific, Artistic, and the like. Cases containing all the periodical publications on each of these subjects which it has been possible to collect from all parts of the British dominions, will be found in the space

devoted to English Literature. These cases are numbered and on referring to the corresponding number in this appendix, the contents of each will be found set down in order, the title of every work exhibited being given at length. The collection has been made on an essentially non-exclusive plan, and it will be found to contain as nearly as may be, everything, from the most richly illustrated work on hot-house flowers to the street ballad and from the Quarterly Review to the halfpenny journal.

In each department, the whole of the literature which refers to the subject treated of will be found. In the religious department, e.g. all forms of religion are represented. Here are Church of England publications, Roman Catholic periodicals, and Religious journals of all kinds. Baptists, Methodists, Independents, even the followers of Swedenborg, and Lady Huntingdon have specimens of their literature here. The same principle applies to each one of the classifications in medicine, philosophy, political economy; all sorts of antagonistic factions have contributed the organs which contain their opinions. Homeopaths, Allopaths, Vegetarians, Tee-totallers, Slave Emancipators, Spiritualists, are all exhibitors in this department. Children, even, have a literature of their own, and are richly provided with periodicals published for their exclusive benefit. Some of these are addressed to mere infants, there is an 'Infant's Magazine,' a 'Child's Own Magazine,' a 'Child's Friend,' and some others, obviously intended for the youngest of literary students. There are nearly fifty magazines and other periodicals kept up exclusively for the benefit of boys and girls. Many, indeed, are the curious and interesting particulars which are brought to light by such a collection. Few people, probably, know that many of our different trades are represented by their own newspapers. There is a bakers' journal; there are exclusive newspapers published for the benefit of the grocer; the oilman; the draper; the ironmonger; the chemist and druggist. There exists, moreover, a 'Pawnbrokers' Gazette,' and a journal of Gas-lighting, and an Anti-tobacco Protest periodically issued. Curiously organised systems for the distribution of periodical literature are revealed also in the course of such investigations. Numerous associations for the publication of serials intended to improve mankind are in existence in various parts of England. Institutions such as the 'Wesleyan Conference Society,' the 'Young Man's Christian Association,' the 'Army Scripture Reader's and Soldier's Friend Society,' the 'London Society for Promoting Christianity among the Jews,' the Religious Tract and the Peace Societies send out all sorts of 'Sundays at Home,' 'Heralds of Peace,' 'British Flags,' 'Christian Sentinels,' and 'Jewish Intelligencers.' And then for the practical work of disseminating such periodicals there are such bodies as the 'Book Hawking Society,' by means of which people are supplied with cheap literature at their own houses. And

here seems the proper place to make some brief mention of a little-known publishing agency called the Number Trade, some of whose publications are included in this collection. It is represented by some three or four houses, and is somewhat peculiarly constituted. They seek no publicity for the works they issue, which are mainly republications, elaborately got up and illustrated, of standard works; they never advertize, and intrust the sale of their publications exclusively to certain persons, who act as a kind of commercial travellers to the trade, and who carry specimens of the publications of the Number Trade about with them, soliciting subscriptions in every town in Great Britain.

In preparing this collection, particular attention has been given to the department of 'low' literature, if the term may be allowed. The purlieus of St. Giles', such regions as the New Cut, or the Waterloo-road, have been made to give up their stores, and it is a curious but somewhat satisfactory fact that the amount of distinctly pernicious and indecent literature which such researches have revealed is very small, and is found to be continually on the decrease. High flown tales, abundantly seasoned with mysterious and exciting incidents; tales of rapine and bloodshed, dazzling descriptions of luxurious banquets, and stimulating accounts of midnight revels, mixed up with various charnel-house details, no doubt abound. Not wholesome reading, perhaps, but not so degrading or injurious as they might be. It must be remembered that we are dealing exclusively with periodicals. Detached publications of an immoral tendency are unhappily not uncommon, but the public will not support such when issued at regularly recurring intervals, and any attempt to introduce a newspaper or magazine of this kind is soon found to be unsuccessful. Nor has London alone been ransacked for curiosities of literature; many of our provincial towns having also, been made to supply us with specimens of their local publications. There are no longer now any periodicals, properly so called, printed in the Lancashire dialect, nor in Gaelic, though both have existed very recently, but there are several in the Welsh language, and Ireland has supplied us with some strange specimens of literature, such as the 'Ghost of Watty Cox,' and 'Paddy Kelly's Diary' and other characteristic eccentricities.

In concluding this preliminary notice, it should be mentioned that this collection is much indebted for any completeness it may have attained to the exertions of Mr. John Francis, a gentleman whose name is well-known in connection with periodical literature, and who has co-operated with me very zealously.

CHARLES ALSTON COLLINS.

Annexed are the lists of the contents of each of the cases.

CASE No. 1.—LONDON DAILY NEWSPAPERS.

Commercial Daily List	International	Pall Mall Gazette
Daily News	Lloyd's List	Public Ledger
Daily Telegraph	Mitchell's Morning Shipping	Royal Evening Mail
Evening Standard	News	Shipping and Mercantile
Evening Star	Morning Advertiser	Gazette
Express	Morning Herald	Standard
Globe	Morning Post	Sun
Glowworm	Morning Star	The Times

CASE No. 2.—LONDON WEEKLY NEWSPAPERS.

Albion	London and Provincial News	Sunday Times
Atlas	Lloyd's Weekly Newspaper	Train
Bell's Weekly Messenger	Mercury	Weekly Dispatch
British Journal	News of the Week	Weekly Herald
Chronicle	News of the World	Weekly Standard
Empire	Observer	Weekly Telegraph
General Observer	Reynold's Newspaper	Weekly Times
London Gazette	Saturday Guardian	World
London Advertiser	St. James's Chronicle	
London Examiner	Sunday Gazette	

CASE No. 3.—LONDON ILLUSTRATED NEWSPAPERS.

Illustrated London News	Illustrated Times	Penny Illustrated News
Illustrated Police News	Illustrated Weekly News	Queen

CASE No. 4.—LONDON NEWSPAPERS FOR SPECIAL CLASSES.

Bee-Hive	Freeman's Magazine	Record
British Standard	Forrester's Reporter	Tablet
Civil Service Gazette	Guardian	Universal News
Commonwealth	Inquirer	Universe
Constitution	Jewish Chronicle	Watchman
County Chronicle	Magnet	Weekly Budget
Court Circular	Orb	Weekly Register
Court Journal	Overland Mail	Wesleyan Times
Freeman	Patriot	Working Man

CASES Nos. 5 & 6.—LONDON LOCAL NEWSPAPERS.

Bayswater Chronicle	Hackney and Kingsland Ga-	Paddington Times
Bethnal Green Times	zette	Peckham Argus and Camber-
Borough of Marylebone News-	Hampstead and Highgate Ex-	well News
paper	press	Shoreditch Observer
Camberwell News	Holborn and Bloomsbury	South London Chronicle
Chelsea News	Journal	South London Journal
City Gazette	Hornsey Hornet	South London Press
City Press	Islington Gazette	St. Pancras News
Clapham Gazette	Islington Times	St. Pancras Reporter
Clerkenwell News	Marylebone Mercury	Tower Hamlets Express
Courier	Middlesex Chronicle	West End News
East End News	North London News	West London Observer
East London Observer	Notting Hill and Bayswater	West London Times
Hackney Independent	Times	West Middlesex Advertiser

CASES Nos. 7-32.—PROVINCIAL NEWSPAPERS.

Alcester Chronicle	Banbury Advertiser	Bath Express
Alnwick Mercury	" Beacon	" Gazette
Altrincham Guardian	" Guardian	" Journal
Andover Advertiser	" Herald	Beccles News
Ashbourne Chronicle	Barnet Press	Bedale Times
Ashton Weekly Reporter	Barnsley Record	Bedfordshire Mercury
" Standard	" Times	Bedford Times
Auckland Times	Barnsley Chronicle	Belper Weekly Times
Axbridge Gazette	Barrow Herald	Berks Advertiser
Bacup Times	" Times	Berkshire Chronicle
Bakewell Standard	Bath Chronicle	" Standard

Berkshire Telegraph	Burton-on-Trent Times	Cumberland Advertiser
Berwick Advertiser	" Weekly News	" Pacquet
" Journal	Bury (Lanc.) Free Press	Darlington Mercury
" Warder	" Guardian	" Times
Beverley Guardian	" Times	" Telegraph
" Weekly Recorder	" St. Edmund's and Nor-	Dartmouth Chronicle
Bicester Herald	wich Post	Dawlish Local Press
Bideford Weekly Gazette	" Suffolk Free Press	" Times
Birkenhead Advertiser	Buxton Advertiser	Deal Telegram
Birmingham Gazette (daily)	" Herald	Derby Gazette
" Daily Post	Cambridge Chronicle	" Mercury
" Gazette	" Independent Press	" Reporter
" Journal	Campden Herald	" Telegraph
" Saturday Even-	Canterbury Journal	Derbyshire Advertiser
ing Post	Carlisle Examiner	" Chronicle
" District News	" Express	" Courier
Blackburn Standard	" Journal	" News
" Patriot	" Patriot	" Times
" Weekly Times	Castle Donnington Telegraph	Devizes Advertiser
Blandford Express	Castleford Free Press	" Gazette
Bognor Express	Central Gazette (Glastonbury)	Devon Weekly Times
Bolton Chronicle	Chard Weekly Chronicle	Devonport Independent
" Guardian	Chatham News	Dewsbury Chronicle
Boston Gazette	Chelmsford Chronicle	" Reporter
Bournemouth Directory	Cheltenham Chronicle	Diss Express
Brackley Observer	" Examiner	Doncaster Chronicle
Bradford Advertiser	" Free Press	" Gazette
" Observer	" Journal	Dorking Journal
" Review	" Looker-on	Dorset County Chronicle
" Times	" Mercury	" Express
Braintree Advertiser	" Times	Dover Chronicle
Bridgewater Mercury	Chepstow Weekly Advertiser	" County Express
" Standard	" Express	" Telegraph
Bridgenorth Journal	" Mercury	Driffeld Times
Bridlington Free Press	Chertsey Mail	" Observer
Bridport News	Cheshire Observer	Dudley Gazette
" Telegram (Lyme Re-	Chester Chronicle	" Guardian
gis)	" Courant	Dunstable Borough Gazette
Brierly Hill Advertiser	" Record	Durham County Advertiser
Brighton Examiner	Chester-le-Street Liberal	" Chronicle
" Fashionable Visitors'	Chichester Express	East Kent Gazette
List	Christchurch Times	" Somerset Telegraph
" Gazette	Cinderford Journal	" Sussex News
" Guardian	Cinque Ports Pilot (Dover)	" Journal
" Herald	Cirencester Times	Eastern Morning News
" Observer	Clevedon Mercury	" Weekly do.
" Times	Clifton Chronicle	" Times
Bristol Gazette	Coleford Times	Eastbourne Express
" Daily Post	Congleton Advertiser	" Gazette
" " Times and Mirror	" Mercury	" Chronicle
" Mercury	Consett Guardian	Eccles Advertiser
" Observer	Cornish Telegraph (Penzance)	Eddowes' Shrewsbury Journal
" Western Daily Press	" Times	Epsom Journal
" " Estates Ga-	" Weekly News	Essex Gazette
zette	Cornwall Royal Gazette	" Herald
Bromley Record	County Chronicle (Guildford)	" Standard
Bromsgrove Weekly Messenger	County Times (Chertsey)	" Telegraph
Buckingham Advertiser	Coventry Herald	" Times
Buckinghamshire Advertiser	" Standard	" and Suffolk News
Bucks Advertiser	" Times	" Weekly News
" Chronicle	Craven Weekly Pioneer	" Journal
" Herald	Crewe Guardian	Evesham Journal
Burnham Times	Croydon Chronicle	Exeter Flying Post
Burnley Advertiser	" Journal	" and Plymouth Gazette
" Gazette	" Observer	" Gazette Daily Telegram
Burton Chronicle	" Times	Exmouth Mercury

Falmouth Packet	Huddersfield Times	Liverpool Daily Courier
" Times	Hull Advertiser	" " Post
Farmers' Gazette	" Eastern Counties Herald	" European Times
" Herald	" Morning Telegraph	" General Advertiser
Farnworth Observer	" News	" Herald
Faringdon Advertiser	" Packet	" Journal
Faversham Mercury	" Times	" " of Commerce
Filey Advertiser	Huntingdonshire News	" Mail
" Post	Ilfracombe Chronicle	" Mercantile Gazette
Fleetwood Chronicle	Ilkestone Pioneer	" Mercury
Folkestone Chronicle	Ikley Gazette	" Observer
" Observer	Ipswich Express	" South End News
Forester (Coleford)	" Journal	" Telegraph
Framlingham Weekly News	" Times	Loughborough Monitor
Frome Times	Ironville Telegraph	" News
Gainsburgh News	Isle of Wight Observer	Louth Advertiser
Gateshead Observer	" " " Herald	Ludlow Advertiser
Glossop Record	" " " Times	Luton Advertiser
" Dale Chronicle	Jackson's Woolwich Journal	" Times
Gloucester Journal	Keighley News	Lydney Journal
" Mercury	Kendal Herald	Lymington Chronicle
Gloucestershire Chronicle	" Mercury	Lynn Advertiser
Goole Weekly Times	" Times	" Record
Gosport Free Press	Kent Herald	Macclesfield Courier
" Times	" Mail	" Weekly Observer
Grantham Journal	Kentish Gazette	Maidstone Journal
Gravesend Free Press	" Chronicle	" Telegraph
" Journal	" Express	Malton Messenger
" Reporter	" Independent	" Gazette
Greenwich Chronicle	" Mercury	Malvern Advertiser
Grimsby Advertiser	" Observer	" News
" Guardian	" Standard	Man of Ross
" Free Press	Kidderminster Telegraph	Manchester City News
" Gazette	Kingsbridge Gazette	" Courier
Guildford Journal	Knaresborough Post	" Examiner
Halesworth Times	" Times	" Guardian
Halifax Courier	Lancaster Gazette	" Weekly Times
" Guardian	" Guardian	" Alliance News
Halstead Gazette	" Observer	Mansfield Reporter
Hampshire Advertiser	Langport Herald	Market - Harborough Advertiser
Hampshire Chronicle	Leamington Advertiser	"
" Independent	" Spa Courier	" Rasen Weekly Mail
" Telegraph	" Chronicle	Marlborough Times
Harrogate Advertiser	" Times	Marlburian
" Herald	Leeds Express	Maryport Advertiser
Harrow Gazette	" Intelligencer	Matlock Advertiser
Hartlepool Free Press	" Mercury	" Bath Telegraph
Hastings Chronicle	" Times	Middlesborough News
" Express	Leicester Advertiser	Middlesex Times
" Herald	" Chronicle	Midland Counties Herald
" News	" Guardian	" Counties Express
Hemel Hempstead Gazette	" Journal	" Saturday Express
Hereford Journal	" Mail	" Free Press
" Mercury	Leigh Chronicle	" Gazette
" Times	Leighton Buzzard Observer	Middleton Albion
Herts and Essex Observer	Lichfield Record	Monmouth Telegraph
Hertford Guardian	Lincolnshire Chronicle	Monmouthshire Beacon
" Mercury	" News	" Merlin
Hertfordshire Express	Lincoln Gazette	Moreton Free Press
Hexham Courant	" and Stamford Mercury	Morpeth Herald
Heywood Advertiser	Lincoln Guardian	Nantwich Guardian
Horncastle Weekly Observer	" Standard	Newark Advertiser
Hornsea Gazette	Lincolnshire Herald	Newcastle-on-Tyne Chronicle
Horsham Express	Liskeard Gazette	" Courant
Huddersfield Chronicle	Liverpool Albion	" Guardian
" Examiner	" Chronicle	" Journal

North of England Advertiser	Reigate Journal	Stockport Advertiser
Northern Daily Express	Richmond and Ripon Chronicle	" News
" Weekly Express	Ringwood Telegram	Stockton Gazette
Newnham Chronicle	Rochdale Observer	" Herald
Newport Advertiser	" Pilot	" Mercury
" Gazette	" Spectator	Stony Stratford Newspaper
" Advertiser (Salop)	Rochester Gazette	Stourbridge Mercury
Newport Pagnell Standard	" Journal	" Observer
Newton Abbott Journal	Rotherham Advertiser	Stratford Express
Norfolk Chronicle	Rugby Advertiser	" Times
" Herald	" Gazette	Stratford-on-Avon Chronicle
" News	Runcorn Free Press	" Herald
North Cheshire Herald	" Guardian	Stroud Journal
" Devon Advertiser	" Observer	Suffolk Chronicle
" " Journal	Salford Weekly News	" Free Press
" Hants Telegraph	Salisbury Examiner	" Mercury
" Shields Gazette	" Journal	Sunderland Shipping News
" Wilts Herald	Scarborough Gazette	" Daily News
Northampton Herald	" Express	" Herald
" Advertiser	" Mercury	" Times
" Mercury	" Times	Surrey Advertiser
" Free Press	Selby Times	" Comet
Norwich Argus	Sevenoaks Express	" Gazette
" Dispatch	Shaftesbury Gazette	" Mail
" Mercury	Sheerness Guardian	" News
Northwich Guardian	Sheffield Daily Telegraph	" Standard
Nottingham Daily Express	" Independent	" Times
" " Guardian	" Times	" and Hants News
" " Journal	Sheldrake's Aldershot Gazette	Sussex Advertiser
" Review	Shepton Mallet Journal	" Agricultural Express
Nottinghamshire Guardian	Sherborne Journal	Sutton Journal
Oldham Chronicle	Shields Daily News	Swindon Advertiser
" Standard	Shrewsbury Chronicle	" Observer
Ormskirk Advertiser	" Free Press	Sydenham Times
Ossett Observer	Shropshire News	Tadcaster Post
Oswestry Advertiser	" Times	Tav' stock Gazette
Oxford Chronicle	Sidmouth Journal	Taunton Courier
" University Herald	Sleaford Gazette	Teesdale Mercury
" Journal	Somerset Central Gazette	Teignmouth Gazette
" Times	" County Gazette	" Times
" Undergraduate's Journal	" Herald	Tewkesbury Record
Oxfordshire Telegraph	" Journal	" Register
Pateley Bridge Herald	South Bucks Free Press	Thame Gazette
Penrith Observer	" Durham Mercury	Thanet Advertiser
People's Journal (Norwich)	" Eastern Advertiser	Tiverton Gazette
Peterborough Advertiser	" " Gazette	" Times
" Times	" Essex Independent	Todmorden Times
Petersfield Express	" Hants Gazette	Torquay Directory
Plymouth Herald	" Yorkshire Advertiser	" Recorder
Pontefract Advertiser	Southampton Times	" Times
" Telegraph	Southern Times	Trowbridge Advertiser
Pontypool Free Press	Southport Independent	" Chronicle
Poole Herald	" Visitor	Tottenham Herald
Portsmouth Guardian	Spalding Free Press	Tonbridge Chronicle
" Times	St. Alban's Times	" Telegraph
Prescot Reporter	St. Helen's Standard	Tunbridge Wells Gazette
Preston Chronicle	" " Newspaper	" " Express
" Guardian	St. Leonard's Gazette	" " Journal
" Herald	St. Neot's Chronicle	" " Standard
Preston Pilot	Staffordshire Advertiser	Tyneside Herald
Radcliffe Times	Staffordshire Chronicle	Ulverston Advertiser
Redcar Gazette	" Sentinel	" Mirror
Redruth Times	" Times (New-castle - under-Lyne)	Usk Observer
Reading Mercury	Star of Gwent	Uttoxeter Era
Redditch Indicator		Ventnor Times
		Wakefield Express

Wakefield Free Press	Western Daily Press	Wirksworth Advertiser
" Journal	" Flying Post	Wisbech Advertiser
Walsall Advertiser	" Gazette	" Chronicle
" Free Press	" Herald	Wolverhampton Advertiser
" Guardian	" News	" Chronicle
" News	" Times	" Herald
Waltham Abbey Telegraph	" Morning News	" Journal
Warminster Herald	" Weekly News	" Spirit of the Times
Warrington Advertiser	Westmoreland Gazette	Woodbridge Reporter
" Guardian	Weston Mercury	Woolwich Gazette
Warwick Advertiser	Weston-super-Mare Gazette	Worcester Herald
" Times	Wetherby News	" Journal
Wednesbury Advertiser	Weymouth Guardian	" News
Weekly Express	" Telegram	Worcestershire Advertiser
" News	Whitby Gazette	" Chronicle
Wellington Journal	" Times	" Express
" Times	Whitehaven Herald	Worthing Express
" Weekly News	" News	Wymondham Observer
Wells Journal	" Times	Yarmouth Chronicle
West Briton	Whitstable Times	" Independent
" Bromwich Reporter	Wigan Examiner	Yeovil Times
West Kent Guardian	" Observer	York Herald
" Recorder	Wigton Advertiser	Yorkshire Advertiser (York)
" Middlesex Herald	Wilts Standard	" (Hull)
West Somerset Free Press	Wiltshire Independent	" Gazette
" Sussex Gazette	" County Mirror	Yorkshireman's News
" Sussex Journal	Wiltshire County Telegram	
Western Daily Mercury	Windsor Express	

CASES Nos. 33 & 34.—WELSH NEWSPAPERS.

Aberdare Times	Cronich Cymru	Newtown Express
Aberystwith Observer	Denbighshire Telegraph	North Wales Chronicle
Banerac Amserau Cymru	Dewsland Guardian	Pembrokeshire Herald
Brecon Journal	Flint County Chronicle	Penny Visitor
Bridgend Chronicle	Flintshire Observer	Potter's Electric News
Brynmaur Chronicle	Haverfordwest Telegraph	Radnorshire Observer
Byd Cymreig	Herald Cymreig	Rhyle Record
Cambria Daily Leader	Llandudno Register	Seren Cymru
Cambrian	Llanelli Guardian	Swansea Herald
Cardiff Guardian	" Telegraph	" Journal
" Shipping Gazette	Llangollen Advertiser	Tenby Observer
" Times	Llanidloes Telegraph	Welshman
Caermarthen Journal	Merionethshire Standard	Wrexham Advertiser
" Weekly Reporter	Merthyr Express	
Caernarvon Herald	" Telegraph	

CASE No. 34.—MANX NEWSPAPERS.

Isle of Man Times	Mona's Herald	Weekly Advertising Circular
Manx Sun		

CASES Nos. 35-39.—SCOTCH NEWSPAPERS.

Aberdeen Free Press	Ayr Express	Dalkeith Advertiser
" Herald	" Observer	Dumbarton Herald
" Journal	" Weekly News	Dumfries Bulletin
" Weekly News	Banffshire Journal	" Courier
Airdrie Advertiser	" Reporter	" Standard
Alloa Advertiser	Blairgowrie Advertiser	Dumfriesshire Herald
" Journal	Border Advertiser	Dundee Advertiser
Annan Observer	Brechin Advertiser	" Courier and Daily
Annandale Herald	Bridge of Allan Reporter	" Argus
Arbroath Guide	Buchan Journal	Dundee People's Journal
" Saturday Guide	" Observer	" Weekly News
Ardrossan Herald	Buteman	Dunfermline Free Press
Argyllshire Herald	Crieff Journal	East of Fife Record
Ayr Advertiser	Christian Times (Airdrie)	Edinburgh Caledonian

Edinburgh Daily Review	Glasgow Morning Journal	Lennox Herald
" Evening Courant	" North British Daily	Moffat Times
" Farmer	" Mail	Montrose Review
" Gazette	" Penny Post	" Standard
Edinburgh North Briton	" Property Circular	Morayshire Advertiser
" Scotsman	" Saturday Post	Nairnshire Telegraph
" Weekly Herald	" Sentinel	Northern Advertiser
" Ladies' Journal	" Times	" Ensign
" North British Advertiser	" Weekly Herald	" Journal
" North Agricultural Journal	" Mail	" Telegraphic News
	Greenock Advertiser	" Warder
	" Herald	Orcadian
Elgin Courant	" Telegraph	Orkney Herald
" Courier	Haddington Courier	Paisley Gazette
Eskdale Advertiser	Hamilton Advertiser	" Herald
Falkirk Herald	Hawick Advertiser	Peebleshire Advertiser
Fife Herald	Huntly Express	Perthshire Advertiser
Fifeshire Advertiser	Invergordon Times	" Courier
" Journal	Inverness Advertiser	" Journal
Farrer Gazette	" Courier	Portobello Advertiser
Galloway Advertiser	John o'Groat's Journal	Renfrewshire Independent
" Post	Kelso Chronicle	Reporter
Glasgow Advertising Sheet	" Mail	Saturday Herald
" Christian News	Kilmarnock Standard	Selkirk Southern Reporter
" Citizen	Kinross-shire Advertiser	St. Andrew's Citizen
" Daily Express	Kirkcaldy Circular	" Gazette
" Evening Citizen	Kirkcudbright Advertiser	Stirling Journal
" Free Press	" Times	" Observer
" Herald	Lanark Examiner	Stonehaven Journal
" League	Leith Commercial List	Strathern Herald
" Mercantile Advertiser	" Burgh's Pilot	Teviotdale Record
	" Herald	

CASES Nos. 40-44.—IRISH NEWSPAPERS.

Anglo-celt	Dublin Agricultural Review	Galway Express
Armagh Guardian	" Builder	" Vindicator
Ballymena Observer	" Christian Examiner	Gorey Correspondent
Ballymony Free Press	" Commercial Journal	Guy's Limerick Advertiser
Ballyshannon Herald	" Daily Express	Irish Land Schedule
Banner of Ulster	" Evening Freeman	Kerry Evening Post
Belfast Mercantile Journal	" Mail	Kilkenny Journal
" Morning News	" Post	" Moderator
" News Letter	" Farmer's Gazette	King's County Chronicle
" Northern Whig	" Freeman's Journal	Leinster Express
" Weekly News	" Gazette	" Reporter
" Press	" General Advertiser	Leitrim Gazette
" Northern Whig	" Irish Ecclesiastical	" Journal
" Illustrated Advertiser	" Gazette	Limerick Chronicle
Bray Gazette	" Jurist	" Reporter
Carlow Post	" Times	Londonderry Guardian
" Sentinel	" Irishman	" Journal
Champion	" Nation	" Sentinel
Clare Advertiser	" Penny Dispatch	" Standard
" Freeman	" Saunders's News Letter	Longford Journal
" Journal	" Shipping Gazette	Mayo Constitution
Clonmel Chronicle	" Telegraph	" Telegraph
Coleraine Chronicle	" Warder	Meath Herald
Connaught Patriot	" Weekly Freeman's	Midland Counties Advertiser
Cork Constitution	" Journal	Munster Express
" Examiner	Dundalk Democrat	" News
" Herald	" Express	Nenagh Guardian
" Southern Reporter	Enniscorthy News	Newry Commercial Telegraph
Downpatrick Record	" Watchman	" Examiner
Drogheda Argus	Enniskillen Advertiser	Northern Standard
" Conservative	Fermanagh Mail	Omagh News
Dublin Advertising Gazette	" Reporter	People

Portadown News	Tipperary Advocate	Waterford News
Protestant Watchman	„ Free Press	„ News Letter
Roscommon Gazette	Tralee Chronicle	„ Standard
„ Herald	Tyrawley Herald	„ Mail
„ Journal	Tyrone Constitution	Western Star
„ Weekly Messenger	Tuam Herald	Westmeath Independent
Skibbereen Eagle	Ulster Gazette	„ Guardian
Sligo Chronicle	„ General Advertiser	Wexford Constitution
„ Independent	„ Observer	„ Independent
Southern Chronicle	Waterford Chronicle	Wicklow News Letter
	„ Citizen	Weekly Herald

CASE No. 45.—COLONIAL NEWSPAPERS AND NEWSPAPERS IN FOREIGN LANGUAGES PUBLISHED IN ENGLAND.

Allen's Indian Mail	Brussels Express	Homeward Mail
Anglo-American Times	Canadian News	London and China Express
Australian and New Zealand Gazette	Cape and Natal News	London and China Telegraph
Australian Mail	Courier de L'Europe	Londoner Anzeiger
Boulogne Express	English News	New Zealand Examiner
Brazil and River Plate Mail	Hermann	Oriental Circular
	Home News	Paris Times

CASE No. 46.—NEWSPAPERS PUBLISHED IN THE COLONIES.

(Only so far as they have been forwarded.)

PRINCE EDWARD'S ISLAND :	ADELAIDE :	JERSEY :
Royal Gazette	Süd-Australische Zeitung	British Press
Patriot		Chronique de Jersey
Herald	MELBOURNE :	
Examiner	Germania	GUERNSEY :
Ross's Weekly		Star
Islander	JERSEY :	Guernsey Mail and Telegraph
Prince Edward Island Calendar	Weekly Express	Comet
	Nouvelle Chronique de Jersey	Gazette de Guernsey
TANUNDA, SOUTH AUSTRALIA :	Jersey Express	
Tanunda Deutsche Zeitung	Jersey Independent	RIO DE JANEIRO :
	Le Constitutionnel	Anglo-Brazilian Mail

CASES Nos. 47 & 48.—COMMERCIAL NEWSPAPERS AND PERIODICALS.

Bakers' Journal	Insurance Gazette	Oil Trade Review
„ Record	„ Record	Paper Trade Review
Bankers' Magazine	„ Times	Paternoster's Monthly Advertiser
Belfast Linen Trade Circular	Inventors' Monthly Manual	Pawnbrokers' Gazette
Bookseller	Ironmonger	Post Magazine
Brewers' Journal	Iron Trade Circular (Ryland)	Press News
Builders' Trade Circular	Knight's Official Advertiser	Prince's Price Current
Bullionist	Letts' Post Office Official Monthly Director	Printers' Journal
Chemist and Druggist	London Commercial Record	„ Register
Colliery Guardian	„ „ Times	Produce Markets Review
Commercial Weekly Statement	„ Mercantile Journal	Public Companies Journal
Co-Operative Directory	„ New Price Current	Publishers' Circular
Cotton Supply Association	Mercantile Express	Railway Gazette
„ „ Reporter	„ Marine Magazine	„ News
Draper	Mining Journal and Supplement	„ Record
Economist	Mitchell's Maritime Register	„ Times
Estates Gazette	„ Steam Shipping Journal	Reporter
Financial Reformer	Money Market Review	Scott's Advertiser, Time Table, &c.
Gaslighting Journal	Monthly Statement of Stocks, Imports, Drugs, &c.	Stationer
General Weekly Shipping List, Postal and Mercantile Directory	Morgan's British Trade Journal	Universal Corn Reporter
Grocer	Newspaper Press	Weekly Chronicle & Register
Hairdressers' Journal		Weekly Report of Iron Trade (Ryland)
Herapath's Railway and Commercial Journal		Wine Trade Review

MAGAZINES AND PERIODICALS CLASSIFIED.

RELIGION.	Frame		Frame		Frame
Armourer	7	Christians' Monthly News	3	Girdle of Truth	8
Athraw, Yr., (Welsh Baptist	10	Christians' Penny Magazine	2	Golden Hours	3
Banner of the Truth in Ireland	7	Church	6	Good News (Stirling)	2
Baptist College Report	10	Church Builder	11	Good News for Young and Old	8
Baptist Magazine	10	Church Magazine	11	Good Words	6
Baptist Messenger	10	Church Missionary Gleaner	4	Gospel Evangelist	10
Baptist Missionary Society's Annual Report	10	Church Missionary Intelligencer	4	Gospel Guide	3
Bible Christian's Calendar	2	Church Missionary Record	4	Gospel Herald	10
Bible Christian's Magazine	2	Church Monitor Magazine	4	Gospel Magazine	4
Bible Class Magazine	9	Church of England Magazine	4	Gospel Missionary	11
Bible Subjects for the Household of Faith	5	Church of Scotland Home and Foreign Missionary Record	6	Gospel Standard	2
Bible Treasury	3	Church of the People	4	Gospel Trumpet	8
Biblical Treasury	9	Church Opinion	1	Happy Home	9
Black-Down Tracts	9	Church Review	1	Harbinger (Lady Huntingdon)	10
Book-Hawking Circular	11	Church Times	1	Heath Press	9
British and Foreign Bible Society, Abstract of Rep.	9	Church Work	7	Herald of Mercy	6
British and Foreign Bible Society, brief view of plan, &c.	9	Churchman	1	Home Mission Field	11
British and Foreign Bible Society, claims of do.	9	Churchman's Companion	4	Home Visitor	11
British and Foreign Bible Society, facts and figures	9	Churchman's Family Magazine	4	Homilist	4
British and Foreign Bible Society, facts for the young	9	Churchman's Monthly Penny Magazine	4	Illustrated Christian Times	12
British and Foreign Bible Society, Monthly Reporter of	9	Clerical Journal	1	Intellectual Repository	2
British Friend	3	Clifton Sermons	8	Irish Congregational Magazine	7
British Harbinger	7	Colonial Church Chronicle	11	Jewish Herald	7
British Herald	11	Coral Missionary Magazine	11	Jewish Intelligence	7
British Messenger	8	Cottager and Artizan	5	Kitto's Cyclopædia of Biblical Literature	7
British Workman	3	Country Towns' Mission Magazine	8	Last Vials	9
Bulwark	11	Day of Rest	2	Leisure Hour	8
Cheering Words	9	Day Star	2	Liberator	2
Christian Advocate and Review	4	Earthen Vessel	2	Literary Churchman	1
Christian Ambassador	12	Ecclesiastic	4	Local Preachers' Magazine	12
Christian Examiner (Ireland)	7	Ecclesiastical Gazette	1	London City Mission Magazine	11
Christian Freeman	7	Ecclesiologist	4	Lymington Protestant	10
Christian Messenger	5	English Church Union Circular, monthly	4	Messenger Évangélique	11
Christian Miscellany	12	English Presbyterian Messenger	6	Methodist New Connexion Magazine	12
Christian Observer	4	Evangelical Christendom	2	Methodist Recorder	12
Christian Pioneer	10	Evangelical Magazine	8	Metropolitan Tabernacle Pulpit	2
Christian Society	4	Evangelical Repository	8	Millennial Star (Latter-day Saints)	2
Christian Spectator	10	Evangelical Witness	6	Miller Scripture History	0
Christian Times	1	Evangelist, The	10	Missing Link Magazine	8
Christian Treasury	6	Evangelization in Italy, Quarterly Record of	5	Missionary Herald	10
Christian Unitarian	7	Exercises on Scripture Lessons	12	Missionary Magazine and Chronicle	2
Christian Witness	2	Family Treasury of Sunday Reading	6	Missionary News	3
Christian Words	12	Female Missionary Intelligencer	11	Missionary Record (Edinburgh)	6
Christian Work	8	Free Church of Scotland, Monthly Record of	6	Mission Field	11
Christian World	8	Friend	1	Mission Life	4
Christian World Magazine	5	General Baptist Magazine	10	Mothers' Treasury	8
		German Baptist Missions	10	Monthly Messenger	9
		Gilead	7	Monthly Packet of Evening Readings	11
				Narrative Series of Religious Tracts	0
				Net, The	5
				Nonconformist	3

	Frame		Frame		Frame
Notes on Bible Lessons . . .	6	Sunday School Teachers' Magazine . . .	9	Nautical Magazine . . .	1
Notes on Scripture Lessons . . .	9	Sunday School Teachers' New Monthly Magazine . . .	9	Naval and Military Gazette . . .	2
Old Jonathan . . .	1	Sunday School Times and Home Educator . . .	1	Naval Chronicle . . .	2
Old Truths . . .	4	Sunday Teachers' Treasury . . .	5	Navy List . . .	1
Onward . . .	10	Sunday Teaching, Monthly paper of . . .	1	Sailor's Magazine . . .	1
Original Essays . . .	10	Surrey Tabernacle Pulpit . . .	9	Seaman's and Fisherman's Friendly Visitor . . .	2
Original Secession Magazine . . .	6	Sussex Pulpit . . .	5	Shipwrecked Mariner . . .	1
Our Curate's Budget . . .	5	Sword and Trowel . . .	2	Soldier's Friend . . .	1
Parish Magazine . . .	4	Theological Review . . .	7	Volunteer Service Gazette . . .	2
Parish Magazine, St Mary's . . .	11	Things New and Old . . .	8	Wellington Gazette . . .	2
Penny Pulpit, Sermon by Rev. A. Raleigh, D.D. . . .	9	Tract Magazine . . .	5		
Plain Words . . .	7	Treasury, The . . .	12		
Pleasant Hours . . .	3	Truthseeker . . .	7		
Precious Truths . . .	3	Union Magazine for Sunday School Teachers . . .	9		
Present Testimony . . .	8	Union Review . . .	7		
Primitive Church Magazine . . .	10	Unitarian Herald . . .	7		
Primitive Methodist's Magazine . . .	11	United Methodist Free Church Magazine . . .	12		
Prophecy, Quarterly Journal of . . .	11	United Presbyterian Magazine . . .	6		
Prophetic Times . . .	2	Voice for South America . . .	2		
Protestant Alliance, Monthly letter of the . . .	10	Voice of Truth . . .	10		
Protestant Association, Report of . . .	2	Watchman of Ephraim . . .	2		
Protestant Churchman . . .	11	Watchword . . .	6		
„ Vindicator . . .	2	Weekly Tracts . . .	9		
Pulpit . . .	4	Wesleyan Home Missionary Record . . .	12		
Pulpit Analyst . . .	2	Wesleyan Methodist Calendar . . .	12		
Rainbow . . .	5	Wesleyan Methodist Magazine . . .	12		
Reformed Presbyterian Magazine . . .	6	Wesleyan Missionary Notices . . .	12		
Religious Tract Society, Monthly Reporter of . . .	9	Wesleyan Sunday School Magazine . . .	12		
Religious Tract Society, 8 Tracts . . .	9	Westminster Chapel Pulpit . . .	2		
Revival . . .	3	Wigan Parish Church Magazine . . .	4		
Sabbath School Messenger . . .	3	Words of Truth . . .	12		
Sabbath School Union Magazine . . .	9	Young Men's Christian Association Quarterly Messenger . . .	11		
Sacred Literature, Journal of . . .	7	Zion's Trumpet . . .	4		
Scattered Nation . . .	7	Zion's Witness . . .	10		
Scottish Congregational Magazine . . .	6				
Scottish Guardian . . .	6				
Scottish Sabbath School Teachers' Magazine . . .	6				
Scripture Readers' Journal . . .	11				
Scottish Texts . . .	9				
Series of Tracts of Religious Tract Society . . .	10				
Servants' Magazine . . .	11				
Sowing and Reaping . . .	8				
Sower, The . . .	9				
Stirling Tracts . . .	11				
Stories for Evening Schools . . .	5				
Sunday at Home . . .	8				
Sunday Magazine . . .	11				
Sunday Reader . . .	9				
Sunday School Penny Magazine . . .	9				

LAW.

Articled Clerk and Debater . . .	1
Bankrupt and Dividend List . . .	1
Bankrupt and Insolvent Calendar . . .	1
Cases Decided in Court of Session, &c (Edinburgh) . . .	2
Central Criminal Court Sessions Paper . . .	1
County Courts Chronicle . . .	1
Cox's Legal Monthly Circular . . .	1
Journal of Jurisprudence . . .	1
Jurist . . .	1
Justice of the Peace . . .	1
Law Examination Reporter . . .	1
Law Journal and Notes of Cases (Weekly) . . .	1
Law Journal (Monthly) . . .	1
Law Journal Reports . . .	2
Law Magazine and Law Review . . .	2
Law Reports (The Statutes) . . .	2
Law Reports of the Council (Appellate Series) . . .	2
Law Reports of the Council (Common Law Series) . . .	2
Law Reports of the Council (Equity Series) . . .	2
Law Times and Law Times Reports . . .	1
Legal Examiner . . .	1
Monthly Bar Reports . . .	2
Perry's Bankrupt Weekly Gazette . . .	1
Police Gazette . . .	1
Poor Law Unions' Gazette . . .	1
Reports of the Superior Courts . . .	2
Reports of County Courts Cases and Appeals . . .	1
Reports of Maritime Law Cases . . .	2
Scottish Law Magazine . . .	1
Solicitors' Journal and Reporter . . .	1
Telegram . . .	2
Weekly Notes, The . . .	1
Weekly Reporter . . .	1

ARMY AND NAVY.

Army and Navy Gazette . . .	2
Army List . . .	1
British Flag . . .	2
Christian Sentinel . . .	1
Colburn's United Service Magazine . . .	1
The Earwig (Volunteers) . . .	2
United Service Gazette . . .	2
Hart's Quarterly Army and Militia List . . .	1
Journal of the Royal United Service Institution . . .	1
Nautical Almanack . . .	1

MEDICAL.		Frame	SPORTING.		Frame
Annals of the British Homœopathic Society	2	Contemporary Review	Baily's Magazine	2	
Archives of Dentistry	1	Cosmopolitan	Bell's Life in London	1	
Archives of Medicine	1	Diplomatic Review	Complete Farrier and British Sportsman	2	
Bartholomew's Hospital Reports	3	Dublin Review	Era	1	
British & Foreign Medical-Chirurgical Review	3	„ University Magazine	Hunt's Yachting Magazine	2	
British Journal of Dental Science	1	Eclectic & Congregational Review	Land and Water	2	
British Journal of Homœopathy	2	Edinburgh Review	New Sporting Magazine	2	
British Medical Journal	2	„ University Magazine	Racing Calendar	2	
Chemical News	2	English Leader	„ Times	1	
Clinical Lectures and Reports (London Hospital)	3	Examiner	Royal Dramatic Annual	1	
Dental Review	1	Fortnightly Review	Sporting Gazette	1	
Dictionary of Chemistry	1	John Bull	„ and Theatrical News	1	
Dublin Quarterly Journal of Medical Science	3	London Quarterly Review	Sporting Life	1	
Eclectic Journal and Medical Free Press	1	„ Review	„ Review	2	
Edinburgh Medical Journal	1	National Reformer	„ Times	1	
Guy's Hospital Reports	3	North British Review	Sportsman	2	
Homœopathic World	2	Official Review	„ (Newspaper)	2	
Journal of Anatomy and Physiology	1	Porcupine	Theatrical Journal	2	
Journal of the Chemical Society	1	Press	„ Observer	2	
Journal of Health	1	Public Opinion	Tissue, The	2	
„ of Hygiene	1	Quarterly Review			
„ of Practical Medicine and Surgery	1	Saturday Review			
Lancet	2	Spectator			
Madras Quarterly Journal of Medical Science	3	Universal Review			
Medical Mirror	1	Weekly Review			
„ Press and Circular	2	Westminster Review			
„ Times and Gazette	2				
Medico-Chirurgical Transactions	3				
Monthly Homœopathic Review	2				
Notes of a New Truth	2				
Ophthalmic Hospital Reports	3				
Ophthalmic Review	1				
Pharmaceutical Journal	1				
Veterinarian	2				
POLITICAL AND GENERAL REVIEWS.		AGRICULTURE.		SCIENTIFIC AND PHILOSOPHICAL.	
Age we Live in	1	British Farmers' Magazine	1	Actuaries, Institute of, Journal	5
Annals of British Legislation	2	Curtis's Botanical Magazine	2	Alpine Journal	1
Anti-Teapot Review	2	English Botany	2	Annals and Magazine of Natural History	2
Atlantic Monthly	2	Farmer (Scotch)	1	Anthropological Review	6
British and Foreign Evangelical Review	3	Farmers' Journal	1	Archæological Journal	6
„ Controversialist	2	„ Magazine	1	Asiatic Society of Bengal Journal	1
„ Quarterly Review	3	Field	1	Asiatic Society of Bengal, Proceedings	1
Christian Remembrancer	3	Floral Magazine	2	Astronomical Register	1
Church and State Review	1	„ World	1	British Journal of Photography	1
		Garden Oracle & Floricultural Year Book	1	Calcutta Review	3
		Gardener's Chronicle and Agricultural Gazette	1	Dictionary of Political Economy	3
		„ Farmers' Journal	1	Dublin Quarterly Journal of Science	1
		„ Magazine	1	Entomologist	2
		Journal of Agriculture	1	Entomologists' Monthly Magazine	2
		„ of Botany	2	Entomology, Journal of	2
		„ of Horticulture	1	Faversham Institute	3
		„ of the Bath and West of England Society of Agriculture	2	Geological and Natural History Repertory	2
		„ of the Royal Agricultural Society of England	2	Geological Society, Quarterly Journal	2
		Mark Lane Express	1	Geological Magazine	2
		Naturalist	1	Gunther, C. L. J. Record of Zoological Literature	6
		Poultry Book	2	Hardwicke's Science Gossip	3
		Royal Agricultural Society's Proceedings	1	Ibis	2
		Scottish Gardener	1	Institution of Mechanical Engineers, Proceedings	5
				Intellectual Observer	3
				Linnean Society, Journal (Botany)	5
				Linnean Society, Journal (Zoology)	5

	Frame		Frame		Frame
Meliora	3	Technologist	3	Knight's Popular History of England	2
Memoirs of Geological Survey of India	6	Truth, The	3	Museum, English Journal of Education	1
Mental Science, Journal of Meteorological Society, Proceedings	1	Victoria Institute, Journal of Transactions	1	New Monthly Magazine for Sunday School Teachers	1
Microscopical Science, Quarterly Journal	3	Zoological Society, Proceedings	6	Notes for Teachers	1
Morris, Natural History of British Moths	2	Zoologist	2	Orator	1
Naturalist's Circular	2			Papers for the Schoolmaster	1
Numismatic Chronicle	1	ART, ETC.		Ragged School Union Magazine	1
Oxford, Cambridge, and Dublin Messenger of Mathematics	1	Art Journal	1	Routledge's Illustrated Natural History	2
Palæontographical Society's Journal	6	Athenæum	1	Sabbath School Magazine	1
Pathological Society of London, Transactions	4	Book Worm	1	" School Teachers' Guide (Ireland)	1
Philological Society, Transactions	5	Choir	1	Sunday School Teachers' Commentary of New Testament	1
Philosophical Magazine	3	Fine Arts Quarterly Review	1		
Photographic Journal	1	Musical Standard	1	PERIODICAL PUBLICATIONS FOR CHILDREN.	
Photographic News	1	Musical Times	1	Adviser	2
Photographic Notes	1	Musical World	1	Band of Hope Review	1
Photographic Times	1	Notes and Queries	1	Boy's Friend	1
Popular Magazine of Anthropology	6	Notes on Books	1	" Journal	1
Popular Science Review	3	Orchestra	1	" Monthly Magazine	1
Pure and Applied Mathematics, Quarterly Journal	1	Reader	1	" of England	1
Reliquiæ Aquitanicæ	5	Society of Arts Journal	1	" Own Magazine	1
Royal Asiatic Society, Journal	1	Tonic Sol-fa Reporter	1	British Boy	1
Royal Astronomical Society, Monthly Notices	4	Tonic Sol-fa Times	1	" Juvenile	1
Royal Geographical Society, Journal	6			Chatterbox	3
Royal Geographical Society, Proceedings	2	MECHANICS.		Children's Friend	3
Royal Society, List of Council and Fellows	4	Artizan	1	" Hour	1
Royal Society, Philosophical Transactions	4	Builder	1	" Jewish Advocate	2
Royal Society, Proceedings		Builders' Weekly Reporter	1	" Magazine	3
Royal Society of Edinburgh, Proceedings	5	Building News	1	" Paper	3
Royal Society of Edinburgh, Transactions	5	Civil Engineer and Architects' Journal	1	" Prize	3
Science, Quarterly Journal	3	Engineer	1	" Record (Scotch)	2
Scientific Review	3	Engineering	1	Child's Companion	2
Scottish Meteorological Society (Journal)	1	English Mechanic	1	" Friend	2
Social Science, National Association of, Journal	5	Horological Journal	1	" Half-penny Magazine	2
Social Science, National Association of, List of Members	5	Mechanics' Magazine	1	" Own Magazine	2
Social Science, National Association of, Transactions	4	Practical Mechanics' Journal	1	Church Missionary Juvenile Instructor	2
Social Science, Journal of	3	Typographic Advertiser	2	Dew Drop	2
Statistical Society, Journal	4			Early Days	2
Symons' Monthly Meteorological Magazine	1	EDUCATIONAL.		Erin's Hope	2
		Cassell's General Atlas	2	Father William's Stories	3
		" Popular Natural History	2	Horsley's Good Child's Reward	2
		Chambers's Encyclopædia	2	Infant's Magazine	3
		Church and School Gazette	1	Juvenile Companion and Sunday School Hive	2
		Class and the Desk	1	Juvenile Instructor and Companion	2
		Edinburgh University Calendar	1	" Magazine	2
		Educational Record	1	" Messenger	3
		Educational Times	1	" Missionary Herald	2
		Examination Papers of the University of Edinburgh	1	" Missionary Magazine (Edinburgh)	2
		Handy Royal Atlas, by Keith Johnston	2		
		Horn, Address to the Students of the Edinburgh School of Design	1		
		Institute, The	1		
		Kent, Association of Institutes and Educational Union, Quarterly Journal	1		

	Frame		Frame		Frame
Juvenile Missionary Magazine (London) . . .	2	Country Words . . .	6	Mugby Junction . . .	2
Kind Words . . .	3	Cutter's Monthly Journal . . .	4	National Gazetteer of Great Britain and Ireland . . .	5
Little Gleaner . . .	2	Delyn Aur Y. (Welsh) . . .	8	Nature and Art . . .	1
Magazine for the Young . . .	3	Dietetic Reformer . . .	5	North Londale Magazine . . .	5
Magnet Stories . . .	1	Domestic Messenger . . .	4	Norwich Spectator . . .	5
Merry and Wise . . .	2	Drysorfa, Y. (Welsh) . . .	8	Once a Week . . .	1
Our Children's Magazine . . .	3	Dublin Saturday Magazine . . .	10	Our own Fireside . . .	1
Pearls from the Golden Stream . . .	2	East Anglican Notes and Queries . . .	5	Owl, The . . .	9
Primitive Methodist Juvenile Magazine . . .	2	Emigration Pamphlets (Brazil) . . .	5	Oxonian Advertiser . . .	10
Routledge's Magazine for Boys . . .	1	Englishwoman's Domestic Magazine . . .	4	Penny Miscellany . . .	7
Stories for Sunday Scholars . . .	2	Enquire Within and Reason Why . . .	4	Penny Post . . .	4
Sunday Scholars' Companion . . .	3	Eurgrawn Wesleyaid (Welsh) . . .	8	People's Magazine . . .	6
Sunshine . . .	3	Family Friend . . .	1	Philatelist . . .	5
Tracts for the Young . . .	3	„ Herald . . .	1	Phonetic Journal . . .	8
Wesleyan Juvenile Offering . . .	2	Fear Tashaich Miosa . . .	8	Phonographic Cabinet . . .	8
Winning Words . . .	2	„ Tathaich Miosail . . .	6	Phonographic Express . . .	8
Youth's Magazine . . .	1	Fiction . . .	7	Phonographic Reporter . . .	8
„ Penny Miscellany . . .	1	Follet, Le . . .	3	Popular History of London . . .	5
LIGHT AND MISCELLANEOUS.		Fraser's Magazine . . .	2	Punch . . .	9
Admiral Tom . . .		Fun . . .	9	Quiver . . .	1
Aldeburgh Magazine . . .	10	Gazette of Fashion . . .	3	Reliquary . . .	5
Alden's Illustrated Family Miscellany . . .	10	Gentleman's Magazine . . .	2	Remembrancer . . .	5
Aldgate Monthly Magazine . . .	2	Gentleman's Magazine of Fashion . . .	3	Reynolds' Miscellany . . .	7
All the Year Round . . .	2	Ghost of Watty Cox . . .	10	Royston Crow . . .	10
Argosy . . .	1	Gravesend and Dartford Miscellany . . .	7	St. James's Magazine . . .	2
Aunt Judy's Magazine . . .	6	Greal, Y. (Welsh) . . .	8	Scottish Journal . . .	6
Arrow, The . . .	10	Guide, The . . .	7	Scott's Circular and Monthly Magazine . . .	8
Beadle's American Library (Star Eyes) . . .	6	Haul Ye, (Welsh) . . .	8	Shamrock . . .	10
Beau Monde . . .	3	Head of the House . . .	6	Sharpe's London Magazine . . .	2
Beeton's Christmas Annual . . .	6	Herald and Genealogist . . .	5	Short-hand Magazine . . .	8
Belgravia Magazine (Miss Bradton) . . .	1	Household . . .	4	Sixpenny Magazine . . .	2
Belgravia . . .	1	Howard Miscellanea Genealogica et Heraldica . . .	5	Sooner or Later . . .	6
Belle Assemblée . . .	3	Hornsey Hornet . . .	9	South London Chronicle . . .	7
Bentley's Miscellany . . .	2	Illustrated Magazine . . .		Sphinx Monthly Journal, Double Acrostics . . .	4
Blackwood's Edinburgh Magazine . . .	2	Ladies' Cabinet of Fashion . . .	3	Spiritual Magazine . . .	5
Bow Bells . . .	7	Ladiss' Companion . . .	3	„ Times . . .	5
Brython, Y. . . .	8	Ladies' Gazette of Fashion . . .	3	Stamp Collectors' Magazine . . .	5
Cambrian Journal . . .	8	Ladies' Own Paper . . .	4	Strange Presentiment . . .	6
Cassell's Christmas Annual . . .	6	Ladies' Treasury . . .	4	String of Strange Stories told round a Christmas-fire . . .	6
Cassell's Illustrated Family Paper . . .	1	Lamp . . .	5	Taking Tales for Cottage Homes . . .	4
Cassell's Illustrated Penny Readings . . .	6	Last Chronicle of Barset . . .	6	Temple Bar . . .	1
Chaine d'Union, Free Masonry . . .	7	Light Blue . . .	6	Town Crier . . .	10
Chambers's Journal . . .	2	Ladies' Magazine of Fashion . . .	3	Townsend's Parisian Costumes . . .	3
Chess Player's Magazine . . .	4	London Herald . . .	7	Tract for the Times . . .	6
Chess World . . .	4	London Journal . . .	7	Udgorn Arian Yr (Welsh) . . .	8
Colburn's New Monthly Magazine . . .	2	London Magazine . . .	1	Victoria Herald . . .	7
Comet . . .	5	London Miscellany . . .	7	Victoria Magazine . . .	1
Cornhill Magazine . . .	2	London Reader . . .	7	Warne's Christmas Annual . . .	6
		London Society . . .	1	West End Gazette of Gentlemen's Fashions . . .	3
		Loughrea Journal . . .	10	Winllan Y. (Welsh) . . .	8
		Lyulph. A Girl at a Railway Junction's Reply . . .	2	World of Fashion . . .	3
		Macmillan's Magazine . . .	2	Young England . . .	5
		Month, The . . .	1	Young Englishwoman . . .	4
		Monthly Letter of Newport Athenæum . . .	8	Young Ladies' Journal . . .	4

TEMPERANCE, ANTI-SLAVERY, ETC.	Frame	Engineer's Office Sheet Al- manack	Frame	Cassell's Time Tables	Frame
Alliance News	1	Englishman's and Family Almanack	1	Chapman's Metropolitan Time Tables	1
Anti-Slavery Reporter	2	Frogland Comic Almanac	2	Glastonbury, its Abbey, its Ruins, &c.	2
Anti-Tobacco Journal	2	Goldsmith's Almanack	1	Glastonbury, Views of	2
Appeal	2	Illustrated Queen Alma- nack	4	Guthrie's Sketch of Ar- drossan and Saltcoats	2
British Workman	1	Johnson's Gardener's Al- manack	1	Huddersfield Time Tables	1
Church of England Tem- perance Magazine	1	Lady's and Gentleman's Diary	1	Lewis's South of England Time Tables	1
Co-operator	2	Licensed Victuallers' Al- manack	4	Mathieson's Brighton and Suburban Directory	2
Freedman	2	London Almanack	1	Metropolit. Railway Guide	1
Freedmen's Aid Reporter	2	M'Comb's Presbyterian Al- manack	3	Murray's Glasgow Time Tables	1
Good Stories	2	Moore's (Francis) Alma- nack	1	New London Railways Maps	2
Graham's Family Magazine	2	Moore's Almanack, Im- proved	1	Proposed New London Railways Maps	2
Herald of Peace	2	Morton's Farmer's Alma- nack	3	Wright's Steam Packet and Railways Time Tables	1
History of the Order of Odd Fellows	2	Old Moore's Almanack	2	ILLUSTRATED BOOKS PUBLISHED IN PARTS.	
Irish Temperance League Journal	1	Osborne's Farmer's Alma- nack	3	Bateman, James, Mono- graph of Odontoglossum	1
Labourer's Friend	2	Parker's Church Calendar	3	Bateman, James, Second Century of Orchidaceous Plants	1
Life Boat	2	Partridge's Almanack	1	Cassell's Don Quixote	2
London Mirror	2	Punch's Almanack	4	" Illustrated Bunyan	2
Mother's Friend	2	Railway Banking Commer- cial Almanack	3	" Illustrated Foxe's Martyrs	2
Reformatory and Refuge Journal	2	Railway Almanack (sheet)	3	Cassell's Illustrated Shak- speare	2
Temperance Advocate	1	Reed's Family Almanack (Belfast)	2	Curtis's British Entomology	3
" Spectator	1	Rural Almanack	4	Dalziel's Illustrated Ara- bian Nights	2
" Standard	1	Stationers' Almanack	1	Dalziel's Illustrated Gold- smith's Works	2
" Star (Irish)	1	Vestry Almanack	1	Harvey, W. H., Phycologia Britannica	3
" (London)	1	Willis's Clerical Almanack	1	Hewitson, W. C., Exotic Butterflies	3
Tracts for the Times (A Political Subject)	2	Wing's Almanack	1	Hogg, R., Florist and Po- mologist	3
Victoria Herald	2	Wood's Almanack and Kalendar	3	Hogg, R., Wild Flowers of Great Britain	3
Weekly Record	1	RAILWAY GUIDES, DIRECTO- RIES, ETC.		Photographic Portraits of Men of Eminence	2
Western Temperance Herald	1	A. B. C. Railway Guide	1	Ramsay, Allan, and the Scottish Poets before Burns	2
ALMANACKS.		Belfast Directory	2	Reeve, L., Conchologia Iconica	3
Aberdeen University Calen- dar	3	Bradshaw's Continental Railway Guide	1	Routledge's Shakespeare	2
Alden's Family Almanack and Oxford Handbook	4	Bradshaw's Continental Railway Guide (cheaper edition)	1	Seemann's Flora Vitiensis	1
Anson's Dramatic and Mu- sical Almanack	4	Bradshaw's Continental Railway Guide (special edition) with Plans of Towns	1	Shakespeare's Works (Globe edition)	2
Band of Hope Almanack (sheet)	2	Bradshaw's Railway Guide	1	Skeat, Rev. W. W., Lancelot of the Laik	2
Belfast Almanack	3	Bradshaw's Railway Guide (condensed)	1	Trail, Rev. R., Josephus	2
Blake's Yarmouth Annual	4	Brine's Kentish Appendix	2	Warner, R., Orchidaceous Plants	
Bow Bells Almanack	4	British Postal Guide	2		
British Almanack	4	British Railway Guide	1		
British Workman's Alma- nack (sheet)	2	Brydone's Railway Direc- tory (Scotland)	1		
Brock's Glastonbury Al- manack	2	Cameron's Time Tables (Edinburgh)	1		
Cassell's Illustrated Family Almanack	4				
Catholic Calendar Church Guide	4				
Clergymen's Almanack	1				
Companion to Almanack or Year book	4				
Cook's Almanack, The	4				
County Almanack	1				
Dietrichsen and Hannay's Almanack	4				

RE-ISSUES AND THE NUMBER
TRADE.

	Frame
Anderson, W., The Scottish Nation	6
Blackie's Imperial Gazetteer	3
Ballads of Ireland	5
Beibl Teuluaid (Welsh)	1
Bible (Illustrated by Doré)	1
Bible, Illustrated (Kelly's)	1
Bickersteth, Rev. E. H., Commentary on the Holy Bible	2
Book of Scottish Song	—
Brown, Rev. J. Dictionary of the Bible	4
Brown, Rev. J. Family Bible	4
Brown, Rev. J. Dictionary of the Bible	4
Browne, James. History of the Highlands	6
Buffon's Natural History	5
Bunyan's Pilgrim's Progress	2
Bunyan's Pilgrim's Progress	4
Bunyan's Pilgrim's Progress	4
Burns, Robert, Works of	3
Byron, Lord, Works of	3
Cassell's Holy Bible	1
Cassell's Bible Dictionary	5
Cassell's History of England	6
Comprehensive History of England	3
Comprehensive History of India	6
Culpeper. Complete Herbal	3
Cunningham, G. G. The English Nation	7
Cyclopædia of Biblical Geography, &c.	2
Dickson. Management of Live Stock and Cattle	5

	Frame
Ettrick Shepherd, The Works of the	3
Fairbairn's Imperial Bible Dictionary	2
Faiths of the World	2
Farmer's Dictionary	6
Fleetwood's Life of Christ	2
Fleetwood's Life of Christ	4
Fullarton's Family Bible	1
Gamgee, John. Domestic Animals in Health and Disease	6
Gazetteer of the World	3
Goldsmith's Earth and Animated Nature	6
Hebert. Engineers' and Mechanics' Encyclopædia	7
Henry, Matthew. Commentary on the Bible	2
Home and Foreign Agricultural Miscellany	6
Hume and Smollett—History of England	3
Imperial Family Bible	1
„ Gazetteer of Scotland	3
„ Gazetteer and Atlas of England and Wales	3
„ Lexicon of the English Language	6
Knight's Cyclopædia, Arts and Sciences	5
„ Cyclopædia, Biography	5
Knight's Cyclopædia, Geography	5
„ Cyclopædia, Natural History	5
McIntosh's Practical Gardener	3
Miller's Scripture History	2
Nicholson and Tredgold. Practical Carpentry	3
Nicholson and Tredgold. Practical Builder	5

	Frame
Object Teaching	7
Ogilvie, John. Imperial Dictionary	6
„ Comprehensive English Dictionary	6
Royal Illustrated Atlas	7
Thiers' French Revolution	6
Universal Geography	5
Villa and Cottage Architecture	J
Working Drawings & Designs (Architectural)	7
Working Drawings & Designs (Mechanical)	7
Young's Holy Bible	1
„ Commentary on the Bible	1

PUBLICATIONS OF THE LONDON
PRINTING AND PUBLISHING
COMPANY.

Family Devotional Bible
Royal Family Bible
Shakspeare—Complete works
Heroines of Shakspeare
Royal Dictionary-Cyclopædia
Circle of the Sciences.

VALENTINES, ETC.

Caricature Valentines—Wood blocks—coloured by hand
Valentines, produced by printing in colours & embossing
Christmas Cards, mostly printed in colours

COMMON PUBLICATIONS ISSUED
FOR THE POORER CLASSES.

Educational
Juvenile Fiction
Sensation Stories and Political Satires
Song Books and Plays
Songs on Sheets
Almanacks and Diaries

SOUTH KENSINGTON MUSEUM, LONDON.

ART LIBRARY.

No part of the museum at South Kensington is of more importance than the National Art Library. An institution for the promotion of art education must be greatly indebted to a good selection of books and engravings to supplement the teaching of the schools. In the latter the hand of the student alone is formed. The time required to master the mechanical difficulties of drawing and painting absorbs the attention during the hours devoted to study, and it is in the student's own time that the

abstract principles of his art must be acquired. What the schools do for the hand the library does for the head and the imagination.

The department has, therefore, been furnished with a library and reading-room. The books have been collected during the last thirteen years, and form, on the whole, an excellent representation of a library for the purposes in question. There is, in addition, a large assortment of drawings, engravings, and photographs, some of the former being framed

and hung in the museum. Special attention has been paid, as well with regard to the books and the drawings and engravings, as to the representation of what may be called decorative art. Thus, amongst the drawings may be numbered the admirable original drawings of Lewis Grüner for his works on the churches and palaces of Italy; while among the books will be found a careful representation of German art and decorative engravings. The German books in the library were selected by Professor Semper, under the direction of his Royal Highness the late Prince Consort, who was well versed in this branch of German literature.

The library, though far from complete, is well provided with large and costly works on foreign galleries, and great pains are taken to collect all important county histories, topographies, or other similar works illustrative of the scattered monuments of mediæval or 16th century architecture in England. It contains many valuable works illustrated by plates and cuts, and a number of old works from the presses of Central Europe of which the value lies in their typographic decorations and woodcuts, examples greatly needed in days so active, in this phase of art, as our own.

A pressing difficulty, felt in all great and growing libraries, is the want of a complete catalogue. It is obvious that if books are always on the increase, any catalogue, however careful, will have to be pulled to pieces for fresh entries, as fast as it is issued from the press.

Great pressure has been put upon the Executive of the British Museum at various times to insist upon the production of a printed catalogue from that noble library. The discussions to which these questions have given rise are of much interest, and may be said to have exhausted the subject. Two printed catalogues have been issued from that institution, but the last went no further than the letter A. It was found impossible to publish a catalogue that could be reliable at the date of publication and *retain its reliability* from the causes already specified. Five thousand books are said to issue from the British press in one year. If these alone, without reckoning the works and whole collections purchased in the market, are added to the existing list, it can be easily seen what becomes of every page of the catalogue.

The period has come in the growth of the National Art Library at which this difficulty is very seriously felt. Two catalogues have been published, and the later of these is now almost out of date as regards the existing collection. As much more of the real catalogue is in MS. My Lords have therefore decided to make an effort to overcome this incessant difficulty by cataloguing, once for all, all the books in the library, and all that ever could belong to it; in other words, all the works that such a library could want, the whole literature of art, with a full represen-

tative collection of book-illustration of all periods.

This would form an universal catalogue of art books and illustrated books, and if completed would be not only a permanent key to the National Art Library, but a standard of what such libraries ought to contain, and would prove a solid acquisition to the whole of the literary world.

Accordingly, in the year 1863, steps were taken for the commencement of such a work, and a number of noblemen and gentlemen of all countries were invited to give their countenance and help to a work that promised to be of interest to other nations besides ourselves, and would form the first example of a catalogue giving the titles of all art books ever undertaken hitherto.

To this invitation the most encouraging answers have been received, and the preliminary work has been begun and carried on in earnest under the direction of the referee for libraries and catalogues of the department, Mr. J. H. Pollen, as editor.

All published catalogues of any importance were analysed, beginning with that of the existing library as a foundation, together with the larger and more important works on bibliography.

But published catalogues are rare. Many large collections of books, the libraries, for instance, of Paris, Vienna, Dresden, Berlin, the Vatican, and many others being without any. That of the imperial library of Paris is in process of publication, but the portion relating to the fine arts is not yet issued.

Of the Vatican library the collection of Count Cicognara, alone, is furnished with a printed catalogue. But there remain numbers of large collections all over Europe and the United States of America, unprovided in this respect.

The British Museum Library, the most admirably arranged and catalogued in Europe, unequalled in its arrangements for the accommodation of readers, for whose comfort such liberal provision has been made, has, at present, no printed catalogue. The result of many enquiries and discussions has been the completion of a catalogue in MS., filling between 12 and 1300 folio volumes, which are made to keep pace with the growth of the library.

For the preparation of the Universal Catalogue recourse has been had, in the last instance, to this MS. The authorities of the Museum have afforded every facility, and the vols. have been searched one after the other, and all titles, not found in the compilation above named, have been noted down, the books examined, and the titles retained of all works bearing in any way on the theory, history, and criticism of art; or of special works of art, and all illustrated books, either of merit in themselves, or that represented schools, periods, or nations that have produced book

art of this nature ; or engravings intended for publication in the form of books.

Here it must be stated that the catalogue of this last class of books cannot be exhaustive, as in the case of the books constituting the *Literature of Art*, which are the primary and indispensable subject matter of an *Art Library* or collection. Such a catalogue would be without reasonable limit.

But all acknowledged book illustrators, and artists such as Dürer, Holbein, Callot, and others, who have issued sets of engravings intended for binding with or without letter press, are intended to be fully represented as far as relates to *such works*. Inferior artists, representing schools formed on the traditions of these or other masters, will be sufficiently represented. The same rule may be laid down as to modern designers, such as Stodhart, Flaxman, Bewick, or Cruikshank in our own country, or Gustave Doré and others on the Continent.

We shall hope, indeed, to see complete catalogues of the works of such artists, as has been done in the case of the Bewicks. Much of such work may not have appeared in books, and not therefore be matter for the catalogue. It will be only under very generally recognised names that *all books* illustrated by particular artists would be catalogued. Different nations have a standard in this respect more or less generally recognised as regards its own artists, and it is hoped that each country will decide as to what names, or what books, do or do not represent this interesting phase of its national

attainments, or what names or books are required to supply the deficiency in the pages of the catalogue.

It remains only to state that, with the consent of a majority of the council of advice, summoned to decide the question, it was judged expedient to put out in a rough form, the proofs or sheets containing all the titles of books already compiled before proceeding to digest a work so imperfect.

Much must still be gathered from the records of distant libraries and collections, and many works already catalogued could not be seen by the editor or his assistants.

It was further resolved to try and obtain the help of the wide circulation of a popular journal for the fullest publication of this preliminary matter.

Arrangements have been made accordingly, for its insertion in the columns of the 'Times,' and it is intended that the letter A should be exhibited in the literary department of the British portion of the Great Exhibition of this year in Paris.

It is hoped that all who take an interest in art, as well as all true friends of literature, will lend a kindly aid to perfect a work the first of its kind, and forward information regarding art books not in the catalogue to the editor, S. Kensington Museum, London, s.w., who will forward to any contributor a form with the headings required regarding titles of books suggested for insertion.

J. H. POLLEN.

SPECIMENS OF A UNIVERSAL ART INVENTORY.

The full title of this work is as follows: Notes for A Universal Art Inventory of Works of Fine Art, which may be found throughout the continent of Europe, for the most part in Ecclesiastical Buildings, and in connection with Architecture: compiled for the use of the South Kensington Museum and the Schools of Art in the United Kingdom. Edited by HENRY COLE, C.B., Director of the South Kensington Museum, and Secretary of the Science and Art Department.

Preface.

1. With a view of enabling the Department of Science and Art to obtain reproductions of the finest examples of art in foreign countries, Earl Russell in February 1864, on the motion of Earl Granville, the Lord President of the Council at that date, addressed to Her Majesty's representatives at Paris, Dresden, Berlin, Munich, Turin and Rome, a request that they would obtain printed catalogues of the great galleries, of art museums and of collections of ornamental art, including examples of skilled workmanship, which now exist in the chief cities

of continental Europe, in order that such information when collected and arranged may be for the mutual benefit of this and of foreign countries.

2. In reply to this application catalogues and other information were transmitted from Rome, Berlin, Munich, Turin, Naples, Milan, and other cities in Italy.

3. These catalogues for the most part refer to collections being the property of the respective states which are exhibited in public museums and galleries, but do not afford information respecting monuments or collections in the treasures of the cathedrals, churches, monasteries, &c.

4. It was proposed that the inventory contemplated in Lord Granville's letter should be classed like the Art Inventory in the South Kensington Museum, under the divisions recited in the following letter.

5. It has been thought expedient to commence the notes for this universal inventory with those objects which, not being collected and exhibited in public galleries, involve trouble in finding them. The present notes refer

largely to objects being portions of the architectural decorations of public buildings.

6. Towards collecting this information the wishes of the Committee of Council on Education in the first instance were made known publicly, and advertised in the useful handbooks published by Mr. Murray, but scarcely any information was obtained by this mode, and it was finally determined to collect such information as might be possible from various publications so as to form a basis, however imperfect.

7. Such information will then be addressed to persons specially acquainted with each class of objects, in order that it may be amplified and corrected by them.

8. Mr. Murray with public spirit gave permission to have notices of objects extracted from his series of valuable handbooks, which undoubtedly is the most compendious source from which they could be obtained; other publications have been examined, but the work must only be considered as a beginning, and has no pretensions to completeness, and notices of objects which are omitted will be thankfully received. Inventories for the following classes of objects have been compiled:—

Mosaics; glass painting; enamels; works in metal; jewellery and decorative objects in precious materials; arms, armour, and accoutrements; wood carving. The other classes are in preparation.

Correspondence, &c., relating to the Interchange of Reproductions of Works of Art with Foreign Governments.

February 8, 1864.

MY LORD,—I have the honour to inclose for your lordship's information the copy of a Minute (see previous Minute) of the Committee of Council on Education, and, in reference to it, to solicit your lordship's assistance in procuring for the use of the department of science and art copies of all printed catalogues of the great galleries of art, museums, and collections of ornamental art, including examples of skilled workmanship, which now exist in the chief cities of continental Europe.

2. Such information will, I feel assured, prove highly useful for the guidance of the officers of this department, as well as of the officers of other public institutions, by informing them of the great examples which now exist, and the places of their deposit, assisting them when such objects are offered for sale, and guarding them against spurious imitations, which are now executed with the greatest ingenuity and skill.

When carefully digested and arranged (which is contemplated as part of the proposal) the combined inventory would form an appropriate offering to the institutions which have contributed to its formation, and might also be made more extensively useful by its publication with the other similar works circulated by this department.

3. This information, sought by means of your lordship's assistance, does not refer to collections of natural history or to objects the merit of which consists only in their great antiquity or rarity, or to objects which may be vulgarly called curiosities, but solely to works of fine art or art workmanship.

These may be classed as:—

1. Sculpture; 2. Medals and engraved gems; 3. Mosaics; 4. Painting; 5. Japanned or lacquered work; 6. Glass painting; 7. Enamel; 8. Pottery; 9. Glass manufactures; 10. Works in metal; 11. Watches and clocks; 12. Jewellery and decorative objects in precious materials; 13. Arms, armour, and accoutrements; 14. Furniture, &c.; 15. Leather work; 16. Basket work; 17. Textile fabrics; 18. Bookbinding and book decoration generally.

4. Galleries of fine art and museums of every class are finding a rapid development throughout Europe, and increased attention is paid to the objects which they contain. They are not by any means confined to the seats of government where Her Majesty's ministers are in residence, but they would be readily pointed out by the scientific men usually connected with the government.

They may be generally described as:—

- A. The private collections of the sovereign and in the royal palaces, but opened for public inspection.
- B. The state or public collections.
- C. The collections of the church, in the treasuries of cathedrals, churches, monasteries, &c.
- D. The collections of towns, guilds, and municipalities in their halls.
- E. Well-known collections of private individuals which are heirlooms of a permanent character.

5. In cases of collections where the articles are of rare excellence, and a catalogue has not been printed, this department would willingly defray such moderate charge as might be incurred for a manuscript list of the most select objects.

6. I hope, from the importance I attach to this proposal, that it may meet with your warm concurrence, and that your lordship will be pleased to enlist the earnest assistance of Her Majesty's ministers at foreign courts in giving a full development to the undertaking, and I shall be happy to give directions that they may be supplied with the catalogues of this museum, and receive any assistance and facilities here which may be requested on their part for any scientific persons who may visit it.

I have, &c. (Signed) GRANVILLE.
The Secretary of State for Foreign Affairs.

Instructions to Her Majesty's Representatives at Dresden, Paris, Munich, Berlin, Turin, and Rome, dated Foreign Office, Feb. 17, 1864.

MY LORD [OR SIR].—I have received from the president of the committee of council on educa-

tion a request for assistance in procuring for the use of the department of science and art copies of all printed catalogues of the great galleries of art, museums, and collections of ornamental art, including examples of skilled workmanship, which now exist in the chief cities of continental Europe.

The precise nature of the objects of art which the committee have in view is stated in their letter, of which I enclose a copy for your more complete information, and in which are further pointed out the collections where the objects of which a catalogue is desired may be found, and the sources from which information on the subject may be obtained.

You will further perceive that in certain cases the committee would be prepared to defray any moderate charge for manuscript lists of objects of rare excellence.

I have now to instruct you to take such steps as you may consider best calculated for carrying out the wishes of the committee, as explained in their letter, so far as the galleries and collections of [Saxony] are concerned, and in so doing you will cause to be made known to the various institutions from which information is requested the desire of the commission that such information, when collected and arranged, may be for the mutual benefit of this and of foreign countries.

I am, &c. (Signed) RUSSELL.

Information was accordingly sent from Munich, Berlin, Turin, and Rome.

At South Kensington, the 8th day of Feb. 1864.

By the Right Honourable the Lords of the Committee of Her Majesty's most Honourable Privy Council on Education.

Memorandum on the International Exchange of Copies of Works of Fine Art.

1. The collections of the South Kensington Museum now possess many examples of works of fine art, executed in various kinds of materials, which are unique for their beauty, excellence, and rarity.

2. In like manner most of the art museums of the continent contain similar works.

3. Such objects must always remain permanently as national treasures of the respective countries possessing them.

4. Although the originals cannot be acquired, various modes of reproduction are now matured and employed, such as electrotyping, photography, elastic moulding, &c., whereby admirable substitutes may be easily obtained with perfect security to the originals.

5. The important national art museums at Paris, Berlin, Dresden, Munich, &c., already possess plaster casts of ancient marbles representing originals which are not in their own possession. But no comprehensive system appears yet to have been matured of employing electrotyping or photography to obtain copies of objects.

6. A commencement of issuing duplicates of fine objects useful in general art instruction, however, has been made by the South Kensington Museum. For example, through the intervention of His Royal Highness the Prince Consort, copies have been obtained of the numerous works of fine art in the possession of Her Majesty the Queen. Through the liberality of His Majesty the Emperor of the French the science and art department was enabled in 1855, during the Paris Exhibition, to obtain electrotypes and photographs of numerous objects in the Louvre and Musée d'Artillerie at Paris. Photographs also have been taken of the most important objects which for public instruction and gratification were so liberally lent to the department by private proprietors during the International Exhibition of 1862. The University of Oxford unreservedly has permitted photographs to be taken of its original drawings by Michael Angelo and Raffaele. Arrangements now exist at the South Kensington Museum by which every object of art collections may be copied by some one of the many processes.

7. The period, therefore, seems to have arrived when friendly relations might, with reciprocal advantages, be established between foreign museums and the South Kensington Museum for the purpose of organising some system of an international exchange of copies of the finest works of art which each museum possesses, and I would venture to submit that the Lords of the Committee of Council on Education should sanction an application to Her Majesty's Secretary of State for Foreign Affairs with this view, and request his lordship to bring the subject before the governments of the various countries which possess museums and works of art.

8. The accompanying art inventory of the South Kensington Museum shows the nature of the objects already the property of the museum. Many objects of exceptional beauty and rarity might be copied, and the nature of the copies has been indicated in the inventory. These might be deemed worthy of the acceptance of the museums of other countries. At the same time it may be observed that every object named in the inventory might be copied if desired.

9. I recommend that a copy of this catalogue should be forwarded to Her Majesty's ministers abroad, through the foreign office, to be delivered to the various governments. A request should be made to such governments to forward to the South Kensington Museum any printed or MS. catalogues of their own museums, in which the objects excellent and rare might be denoted in a similar way. Opportunity might be taken to inquire if the respective governments would be disposed to entertain the idea of an exchange of copies of objects, and if they should concur in the idea to ask them to authorise the various directors of museums to communicate directly with the Lords of the Committee of Council on Education at the South

Kensington Museum. HENRY COLE, Secretary and General Superintendent.

South Kensington Museum, Feb. 8, 1864.

Illustrations of the international system of reproduction, which it is the aim to establish, are exhibited in Class 8 of the Paris Exhibition.

ART INVENTORY OF MUSEUM.

From the first formation, in 1852, of the Collection of Art Objects, then exhibited at Marlborough House, and which has since developed into the Art Collection now at the Museum at South Kensington, it has been the practice to furnish catalogues for the use of the public. At first these catalogues went somewhat into detail, and brief critical notices were given of the more important examples, together with sketches of the history of the various branches of art illustrated by the museum. In order, however, to keep pace with the rapid increase of the collection, and at the same time to confine the catalogue within due limits, it became necessary to make the notice of each object as brief as possible, stating merely its name, material, country, date, dimensions, and cost. The catalogue thus took the form of an inventory. It was arranged under eighteen divisions, and new acquisitions were from time to time inserted as new editions were called for. In accordance with the rule of the museum that no object shall be exhibited without a label, this inventory was so arranged as to admit of its being cut up and mounted for this purpose, thus enabling the public to read by the side of each object all the information which would be obtained by reference to the inventory itself; and, since 1863, it has been the practice to print additions to the inventory page by page at frequent intervals, and to supply copies on card for use as labels.

In a preface to this inventory added in December 1863 it was announced that a new edition was about to be prepared in which the arrangement in divisions would be discontinued. It had for some time been determined that a careful revision of the inventory should take place with a view to the compilation of a final and unalterable record, a domesday book of the museum, so to speak, by which the year of acquisition, the cost, and the dimensions of every object in the museum at the time of such compilation might be settled for all future reference. The verification of these particulars was accordingly taken in hand, and at the same time the revision of the descriptions was

entrusted to various gentlemen. A large mass of material having been prepared, a Minute was passed by the Board of the Department of Science and Art on January 19, 1866 (Earl Granville, K.G., being Lord President of the Council), assigning the compilation of an art inventory from this material to an officer of the museum, and directing that each entry should as far as possible state:—I. The nature of the object; II. Its material; III. Title or description; IV. Country; V. Date; VI. Size; VII. Condition, if necessary; VIII. Whether presented or purchased, and if the latter, the cost; IX. Number in register, and year of acquisition.

Eight parts of this new inventory are now in type for the years 1852 to 1859, each part being complete in itself, and containing the acquisitions for the one year to which it is devoted. This arrangement under separate years was fixed on as the only one which admits of the acquisitions of each future year being systematically added without delay and without the necessity of re-arranging the material already in print. Beyond its value as a permanent record, and its use for labelling purposes, for which it has been carefully adapted, this inventory is to be viewed as material from which catalogues may hereafter be compiled. Being arranged according to the years in which the objects are acquired it is chiefly useful for official reference, but it readily admits of re-arrangement upon any plan which may be wished, either according to alphabetical order, country, date of production, or material.

It may be added that the inventory is independent of special catalogues or guides to the museum which may appear from time to time. Descriptive catalogues of the objects in various branches of art contained in the Museum are contemplated. One of this series, 'The Italian Sculpture Collection in the South Kensington Museum,' by J. C. Robinson, F.S.A., was published in 1862; the Catalogue of Textile Fabrics, by Dr. Rock, is already in print, and awaits only the completion of preface and indexes; that of ornamental bronzes is also written, as well as those of stained glass, bookbinding, MSS. illuminations, with portions of other collections, some not full enough to justify the immediate preparation of their catalogues for the press. It is intended that these special catalogues shall be illustrated by chromolithography and photography. A number of careful drawings have already been prepared for that of the textile fabrics, and are now in the hands of the chromolithographers.

REPORT ON THE COLONIAL NEWSPAPERS EXHIBITED IN PARIS, 1867.

At the time when the collection of Periodical Literature now exhibiting in Paris was in course of formation, application for contributions of newspapers and periodicals was made to the Governments of such of our Colonies as seemed likely to possess any literature of this class. These applications were met with ready promises of co-operation; but up to the time when it became necessary to close the collection, in order to send it to Paris, only a very few such specimens had arrived. Some of our colonies have, however, included a certain small number of newspapers among the objects which they have sent over for exhibition at Paris; and of these it seems desirable, in order to make our list of Periodicals, published in the British dominions, as complete as possible, to make some mention in this place.

As might be expected, the colony of Victoria exhibits a greater number of newspapers than any other. There are, in all, thirty-three, eight of which are published in Melbourne. The following is a list:—

Age (daily).	Creswick and Clunes Advertiser.	Maryborough and Dunolly Advertiser.
Age (weekly).	Economist.	St. Arnaud Mercury.
Argus.	Federal Standard.	St. Kilda Telegraph.
Australasian.	Geelong Advertiser.	South Bourke Standard.
Ballarat Star.	Gippsland Chronicle.	Tarrangown Times.
Banner of Belfast.	Gippsland Guardian.	Taradale Express.
Beechworth Constitution.	Inglewood Advertiser.	Warnambool Advertiser.
Belfast Gazette.	Journal of Commerce.	Weekly Advertiser.
Bendigo Advertiser.	Leader.	Western Times
Bendigo Gazette.	Majorca and Carisbrook Independent.	Williamstown Chronicle.
Castlemaine Advertiser.		
Clough's Circular.		
Clunes Gazette.		

South Australia exhibits eighteen newspapers, the last four of which, on the list, are in the German language.

Adelaide Express.	South Australian Chronicle.	Weekly Mail.
Adelaide Observer.	South Australian Government Gazette.	Blätter für Ernst und Scherz
Bordu Watch.	South Australian Register.	Blumenlese.
Bunyip.	Southern Argus.	Süd-Australische Zeitung.
Kapunda Herald.	Telegraph (Adelaide).	Tanunda Deutsche Zeitung.
Mount Gambier Standard.	Wallaroo Times	
South Australian Advertiser.		

The Indian periodicals are the next in number to the South Australian. The collection is, however, very incomplete, a considerable number of specimens, which should have been exhibited in Paris, having been forwarded to the Indian Museum in London. Some native journals, native

books, illuminated MSS., calendars, and other publications, in the vernacular, are included in this collection. The following are the newspapers :—

Coimbatore Gazette.	Poona Observer.	Travancore Government Ga-
Godavery District Gazette.	Shevagunga Zemindary Ga-	zette.
	zette.	Trichinopoly Journal.

New Zealand sends three newspapers only, all of which are published in Auckland :—

Daily Southern Cross.	New Zealand Herald.	Weekly Herald.
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The Mauritius exhibits 'Mauritius Government Gazette,' certain reports of local societies, and various pamphlets, the whole described in their catalogue as 'Ephemeral Publications of Mauritius.'

Trinidad contributes one newspaper, 'Port of Spain Gazette,' and printed extracts from two others, the 'Chronicle,' and the 'Star of the West.'

Of the Prince Edward's Island publications, a complete display is shown in the 'Collection of Literature' exhibited by the South Kensington Museum. The other colonies exhibiting at Paris send in some instances—as in the case of New South Wales and Queensland—directories, bound books, and some other contributions of a literary sort, but no Periodicals, properly so called.

COLLECTION OF NEWSPAPERS, JOURNALS AND PERIODICALS

PUBLISHED IN THE COLONY OF VICTORIA.

- WILSON & MACKINNON, Melbourne
Periodicals and scientific papers
- WILLIAMS, W. H., Melbourne
Ephemeral literature
- BLUNDELL & FORD, Melbourne
Periodicals and other publications
- CLOUGH & Co., wool brokers, &c., Melbourne
'Clough's Weekly Circular'
- FERGUSON & MOORE, Melbourne
Numb. of weekly 'Economist'
- WALKER, MAY, & Co., Melbourne
Numb. of weekly 'Prices Current'
- SYME, E. & D., Melbourne
Various periodicals
- EDWARDS, JOHN GREGORY, Sandhurst
4 numbs. of 'Bendigo Independent'
- MACKAY & Co., Sandhurst
Code of mining laws and periodicals
- MARSHALL, JOHN, St. Arnaud
Numb. of 'St. Arnaud Mercury'
- STEPHENS, JOHN BENNETT, Williamstown
Numb. of 'Williamstown Chronicle'
- MOTT, GEORGE, & Co., Beechworth Chiltern
Periodicals
- CHATWIN, C. H., & TARRANT, J. E., Clunes
2 numbs. of 'Clunes Gazette'
- RYAN, JAMES, Sales
Numb. of 'Gippsland Chronicle'
- OSBORNE, RICHARD, Warrnambool
2 numbs. of 'Warrnambool Examiner'
- COOPER, E., Port Albert
Numb. of 'Gippsland Guardian'
- SANDS, WM., Kyneton
3 numbs. of 'Kyneton Observer'
- JANSON, JOHN, Taradale
Numb. of 'Taradale Express'
- TREVAN, RICHARD, Creswick
3 numbs. of 'Creswick and Clunes Advertiser'
- OSMENT, W. H., Prahran
Numb. of the 'Telegraph'
- HOWLISTON, ROBERT, Maldon
Numb. of 'Tarrangower Times'
- DOUGLASS, ALFRED, Geelong
Numb. of 'Geelong Advertiser'
- DURANT, S., Castlemaine
3 numbs. of 'Castlemaine Daily News'
- KERR, W. R. M., Castlemaine
Numb. of 'Castlemaine Advertiser'
- BATEMAN, CLARK, & Co., Talbot
Numb. of the 'Talbot Leader'
- EVANS, JAMES, Marlboro'
Numb. of 'Maryboro' and Dunolly Advertiser'
- O'REILLY, MICHAEL, Belfast
Numb. of 'Banner of Belfast'
- PATMORE, GURNEY, Portland
Numb. of 'Western Times'
- ARMSTRONG, MITCHELL KING, Kyneton
Numbs. of 'Kyneton Guardian'
- HORNBLOWER, JOHN GRIFFIN, Inglewood
Numbs. of 'Inglewood Advertiser'
- PATEN, JOHN F., Arvia
Numb. of 'Arvia Mail'
- GEARING, J. H., Carisbrook
Numb. of 'Majorca and Carisbrook Independent'
- PAGE, THOMAS, Tarnagulla
Numb. of the 'Tarnagulla Courier'
- SMITH, THOMAS, & OSBORNE, G. W., Belfast
Number of 'Belfast Gazette'
- SLATTERIE, A., Hawthorne
Numb. of 'South Bourke Standard'
- WANLISS, THOMAS D., Ballarat
Numb. of 'Ballarat Star'

SPOTTISWOODE & CO., *New-street-square, London, E.C.*

PRINTERS BY APPOINTMENT TO HER BRITANNIC MAJESTY'S COMMISSIONERS FOR THE
PARIS UNIVERSAL EXHIBITION OF 1867.

A Latin-English Dictionary. By the Rev. John T. White, M.A., and the Rev. J. E. Riddle, M.A.

The second edition of a copious work, founded on Dr. Andrews's translation of Dr. Freund's 'Wörterbuch der Lateinischen Sprache;' but, by the addition of new words and new meanings of words, one-third larger than the original work. It is printed on thin strong paper and with full-face small-bodied type, cast expressly for the work.

Sophoclis Tragediæ superstites. Recensuit et brevi Annotatione instruxit Gul. Linwood M.A. Editio tertia.

Printed with a bold-faced type, of the character termed Porson Greek.

Treatise on the Differential Calculus, and on the Method of Infinitesimals. By Bartholomew Price, M.A.

Exhibited to show a clear mode of printing algebraical formulæ.

Public School Latin Primer.

An elementary Latin book lately introduced into the English Public Schools.

A Card of Greek Syntax. By Rev. F. W. Farrar.

Printed with Greek types, of which the firm of Spottiswoode & Co. possess nineteen different sizes and varieties.

The Parish Chant-Book. By George F. Chambers, F.R.A.S.

A collection of single and double chants, and a few miscellaneous compositions, printed in music types, at the ordinary hand-press.

Life of Josiah Wedgwood. By Eliza Meteyard. 2 vols.

This work is profusely illustrated with woodcuts, drawn from the originals in the possession of various collectors, and executed with exquisite care and taste.

The Sea and its Living Wonders.

The Tropical World.

These works were translated into the English language by the author, Dr. Georg Hartwig, of Göttingen, and are illustrated with Chromo-xylographs, or wood-cuts printed in colours at the ordinary hand-press. The 'rainbow tint,' as shown in the Cotton Field, is obtained by the careful distribution of the different coloured inks on the slab so as to make them blend into one another at the given points with one rolling.

Tauler's Life and Sermons. Translated by Susannah Winkworth; and a Preface by Rev. C. Kingsley.

The life and some of the more important sermons of Doctor John Tauler, an eminent preacher of Strasburg in the fourteenth century. Printed in types cast from old English matrices; the head and tail pieces from cuts between one and two centuries old.

Diary of Mary Countess Cowper, Lady of the Bed-Chamber to the Princess of Wales. 1714-1720.

A MS. left by the first Lady Cowper, printed in old-cut types and with veritable head and tail pieces of the early part of the eighteenth century.

Ecce Homo: a Survey of the Life and Work of Jesus Christ.

The fifth edition of this celebrated work.

St. Augustine's Manuell, or little Booke of the Contemplation of Christ.

A reprint of the edition of John Day, a famous printer, in black letter, and with facsimiles of the original border-cuts in the taste of the Elizabethan age.

Dictionary and Grammar of Egyptian Hieroglyphics. By S. Birch, Esq., LL.D. (forming part of the fifth volume of Baron Bunsen's 'Egypt's Place in Universal History,' 5 vols.)

This Dictionary and Grammar form the most comprehensive and valuable work hitherto printed for the student of the ancient Egyptian language. The types were drawn, engraved, and cast in London, to nonpareil ems in width and depth for easy justification; and include a larger number of Hieroglyphic Characters than have ever before been prepared for the printing-press in any country in Europe.

The First Book of the Hitopadêsa, containing the Sanskrit Text with interlinear transliteration, Grammatical Analysis, and English Translation.

Mahratti New Testament.

Printed for the British and Foreign Bible Society in the Mahratti language, from types cast in matrices struck in India.

Icelandic Bible.

Printed for the British and Foreign Bible Society, with types cast for the work.

Ningpo New Testament.

Printed for the British and Foreign Bible Society. The first instance in which any portion of the Scriptures has been printed in the Chinese language in Roman types. The adaptations and modifications were specially prepared for this work.

Tahitian Bible.

Printed for the British and Foreign Bible Society. The Tahitian language is remarkable for its immense use of vowels and its mellifluous feebleness.

New Testament, in modern Greek.

Printed for the British and Foreign Bible Society, in small Greek types cast for the work.

The History of Our Lord, as exemplified in Works of Art. Begun by the late Mrs. Jameson, and completed by Lady Eastlake. 2 vols.

These volumes form part of a Series of beautiful works on the literature of Christian Art, of which they may be regarded as the natural close. They are abundantly illustrated by drawings on wood and steel by the best artists, copied from the works of the most eminent masters, ancient and modern, and printed carefully with the finest ink.

Ballads and Legends of Cheshire. Edited by Major Egerton Leigh.

A collection of ballads and legends of the county of Cheshire, illustrated with wood engravings, and printed with fine ink on ribbed paper.

The Ballad Book. By William Allingham.

A popular collection.

Recreations of a Country Parson. By A. K. H. B.

An illustrated edition of a popular work, printed with modern Elzevir types upon toned paper.

Sentiments and Similes of William Shakspeare.

A classified selection of similes, definitions, descriptions, and other remarkable passages in the plays and poems of Shakspeare. Printed in the style of decorative printing of the Shaksperian age. The chromo-lithograph border of page 1 was printed in Paris.

Law Journal.

A leading weekly newspaper, containing legal news and notes of cases decided in the Law Courts during the week before publication.

Combes's Ready Writer.

Printed at the Spottiswoode steam press from glyphograph plates prepared specially for this series.

Sutton's Spring Catalogue and Amateur's Guide for 1867.

A catalogue of seeds of vegetables, fruits, and flowers, circulated all over the world.

The Publishers' Circular.

A record of all works published in Great Britain, and every work of interest published abroad. A large number is printed and issued on the 1st and 15th of every month, and an illustrated number like the one here exhibited, every Christmas.

Notes and Queries: a Medium of Intercommunication for Literary Men, General Readers, &c.

A valuable publication, commanding a great sale among all persons interested in science, literature, and art.

Saturday Review.

One of the most able of the weekly political, social, and literary reviews published in London. Printed from stereotype plates, taken by the papier maché process.

Specimens of some of the Types in use in Messrs. Spottiswoode & Co.'s Printing Office.

In this book are exhibited specimens of six kinds of Hebrew, one of Etruscan, one of Ethiopic, one of Inscription Greek, nineteen of Greek of various sizes and shapes, two of Sanskrit, one of Hindustani in Persian characters, one of the same language in Roman characters (according to the Anglo-Indian orthography), one of Persian in the Taleek character, one of Arabic (with the necessary modifications for Persian, Hindustani, Turkish, Malay, and Pushtu), one of Bengali, one of Russian, one of Tamul, one of Syriac, one of Coptic, one of Irish, five of Anglo-Saxon, two of German, two of Swedish, and three of Music types.

A *Specimen Book of Jobbing Types* is likewise exhibited.

The above books are exhibited to show the variety of work done in a large London Printing Office, which employs more than 500 hands, having in use upwards of 230 tons of type, 2 steam engines, 22 steam printing machines, and 27 hand-presses, besides proof- and galley-presses.

CLASS VII.

SAUNDERS, T. H., *Lyons Wharf, near Queenhithe, Upper Thames-street, London, E.C.*

Machine Mills—Phoenix and Hawley Mills, Dartford, Kent. Hand Made or Vat Mills—Darent and Sundridge Mills, Kent; Beech Mill, Wycombe, March; Rye Mill, High Wycombe, Bucks. Town Offices and Warehouse—Lyons Wharf, near Queenhithe, Upper Thames-street, London, E.C.

Manufacturer of Bank Note, Bond, Share Certificate, Debenture, Cheque, and Special Papers of every description, Plain and Water-marked; Account Book, Drawing, Writing, Plate, Printing, Blotting, Chart, Lithographic, Coloured, and other Papers.

Fabricants de Papiers pour Billets de Banque, Obligations, Certificats d'Actions, Chèques, et pour usages spéciaux, uni et à filigrane; Papiers pour Régistres, à Dessiner, à Écrire, pour Planches, à Imprimer, Brouillard, pour Cartes, à Lithographier, de Couleur, et autres.

First Class Medals obtained at the Great Exhibition, London, 1851; New York, 1853; Paris, 1855; London, 1862.

Attention is first directed to the papers made by hand and watermarked, the peculiar strength and durability of which has caused them to be adopted for all purposes where those qualities are especially valuable; as for example, bank notes, government loans, share certificates, policies of insurance, &c. &c.

Bank Notes.—This establishment has for a long series of years been engaged in the production of the bank notes in circulation in most parts of the world, and has been entrusted with the orders of many Foreign Governments. An examination of the specimens of elaborate and artistic watermarking exhibited in Group II. Class 7, is especially requested.

Hand-made papers for account books are next worthy of notice, as on the skill and care bestowed upon their manufacture depends the durability of the books made of them. These papers, marked 'T. H. SAUNDERS' or 'C. WILMOT' have for many years been celebrated for the possession of this most requisite quality.

Machine papers are made of all kinds and qualities, comprising the finest account book and writing papers, printings, white and coloured, patent cheque papers chemically prepared to prevent falsification, plate, lithographic, blottings white and coloured, cartridge, papers for card makers and newspapers.

Médailles de Première Classe à la Grande Exposition de Londres, 1851; à New-York, 1853; Paris, 1855; Londres, 1862.

L'attention est d'abord appelée sur les papiers fabriqués à la main et à filigrane, que leur force particulière et leur durabilité ont fait adopter pour tous les usages dans lesquels ces qualités sont spécialement précieuses; tels, par exemple, que billets de banque, emprunts de gouvernements, certificats d'actions, polices d'assurance, etc. etc.

Billets de Banque.—Cet établissement se livre depuis de longues années à la fabrication des billets de banque en circulation dans la plus grande partie du monde, et beaucoup de Gouvernements Étrangers l'ont favorisé de leur confiance sous ce rapport. On est prié d'examiner spécialement les spécimens de filigrane élaboré et artistique exposé dans le Groupe II. Classe 7.

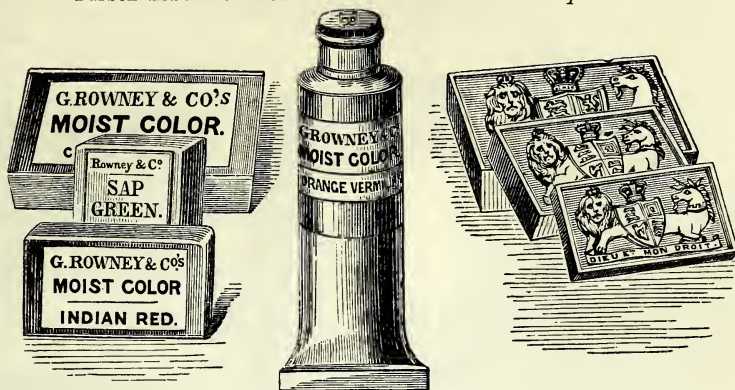
On citera en suite comme dignes d'attention les papiers faits à la main pour registres, la durabilité de ces dernières dépendant de l'habileté et du soin avec lesquels ont été fabriqués les papiers qui les composent. Ces papiers, à la marque 'T. H. SAUNDERS' ou 'C. WILMOT,' sont renommés depuis nombre d'années pour ces qualités si nécessaires.

Papiers à la mécanique de toutes sortes et qualités, y compris les plus beaux papiers pour registres et à écrire, à imprimer, blancs et de couleur; papiers pour chèques à préparation chimique pour empêcher la falsification; papiers pour planches, à lithographier, brouillard blancs et de couleur, papier-cartouche, et papiers pour fabricants de cartes et journaux.

ROWNEY, GEORGE, & CO., 29 Oxford-street, London, w.

Artists' Colours and Materials—*Couleurs et Articles pour Artistes.*

Farben und Materialien für Maler—*Colori e Materiali per Artisti.*



The case contains specimens of oil and water colours, ground extra fine by steam-power. The superiority of this mode of grinding colours for artists' use will become evident by a comparison of them with colours prepared by manual labour. The oil colours of Messrs. G. ROWNEY & Co. will be found finer, brighter, less oily, and quicker in drying; and their water colours finer, brighter, and more even in washing than colours otherwise prepared. Among the colours exhibited, the attention of artists is particularly directed to the intensity of beauty of the madders; to a new and permanent yellow, made from nitrate of cobalt; to a very beautiful and permanent green, made from the oxide of chromium; and to a new preparation of Prussian blue made exclusively by G. ROWNEY & Co., which is quite permanent.

In Class 7 are exhibited a few specimens of their productions in chromo-lithography, consisting of copies, drawings, and paintings.

Leur vitrine renferme des spécimens de couleurs à l'huile et pour l'aquarelle, broyées extra fines à la vapeur. La supériorité de cette méthode de broyer les couleurs à l'usage des artistes deviendra évidente par une simple comparaison de celles ainsi broyées avec d'autres préparées à la main. On trouvera les couleurs à l'huile de MM. G. ROWNEY et C^{ie}. plus fines, plus brillantes, moins huileuses et plus promptes à sécher; et leurs couleurs pour l'aquarelle aussi plus fines, plus brillantes, et plus égales en lavant que celles autrement préparées. Parmi les couleurs exposées l'attention des artistes est particulièrement appelée sur l'intense beauté des garances; sur un jaune nouveau et solide, fait de nitrate de cobalt; sur un vert magnifique et très-solide, fait avec l'oxide de chrome; et enfin sur une nouvelle préparation de bleu de Prusse, produit exclusif de G. ROWNEY et C^{ie}., d'une solidité parfaite.

Dans la Classe 7 sont exposés quelques spécimens de leurs productions en chromolithographie, consistant en copies et peintures.

Der Schaukasten enthält Proben von Oel- und Wasserfarben, welche extrafein durch Dampfkraft gerieben sind. Die Ueberlegenheit dieser Methode, Farben für die Zwecke der Malerei zu reiben, wird augenscheinlich werden, wenn man sie mit den durch Handarbeit geriebenen Farben vergleicht. Man wird die Oelfarben der Herren G. ROWNEY & Co. feiner, scheinender, nicht so ölig und schneller trocknend und ihre Wasserfarben feiner, glanzvoller und gleichförmiger im Auftragen als auf andere Weise präparierte Farben finden. Unter den ausgestellten Farben wird die Aufmerksamkeit der Maler besonders gerichtet auf den hohen Schönheitsgrad der Krappfarbe; auf ein neues und fortdauerndes Gelb, von salpetersaurem Kobalt gemacht; auf ein sehr schönes und fortdauerndes Grün, von Chromiumoxyd gemacht; und auf eine neue Zubereitung von Berlinerblau, welches ausschliesslich von ROWNEY & Co. gemacht wird und vollkommen fortdauernd ist.

In Klasse 7 sind einige Proben ihrer Erzeugnisse in Chromolithographie, aus Copien und Gemälden bestehend, ausgestellt.

La cassetta contiene saggi di colori a olio de acquarello, macinati extra fini a vapore. La superiorità di questo modo di macinar i colori diviene evidente comparandoli con quelli preparati a mano. I colori ad olio dei Sigr. G. ROWNEY & CIA. si troveranno più fini, più lucenti, meno oleosi, e più prontamente essiccanti, e i loro colori a aquerello più fini, più lucenti, e più uniti nel distendersi che i colori preparati altrimenti. Frai colori esposti si invitano gli artisti a dare speciale attenzione alla bellezza delle robbie, ad un giallo nuovo e permanente ottenuto dal nitrate di cobalto; ad un verde bellissimo e permanente ottenuto dall' ossido di cromo, e ad un nuovo blu di Prussia fatto esclusivamente da G. ROWNEY & CIA. che è perfettamente permanente.

Alla Classe 7 sono esposti alcuni saggi delle loro produzioni cromolitografiche consistenti in copie e bozzetti.

WARD, MARCUS, & CO., MINERVA WORKS, BELFAST.

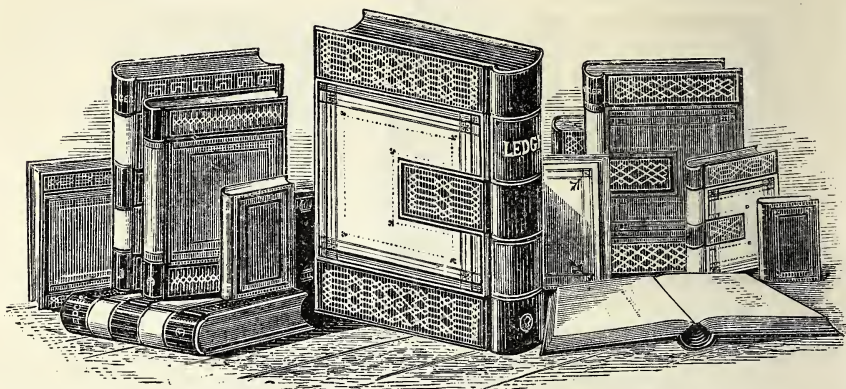
FIRST PRIZE MEDALS.

LONDON, 1862.
DUBLIN, 1865.

BY APPOINTMENT

TO H. R. H. THE PRINCE OF WALES.
ROYAL WARRANT, 1863.

CERTIFICATES OF MERIT.

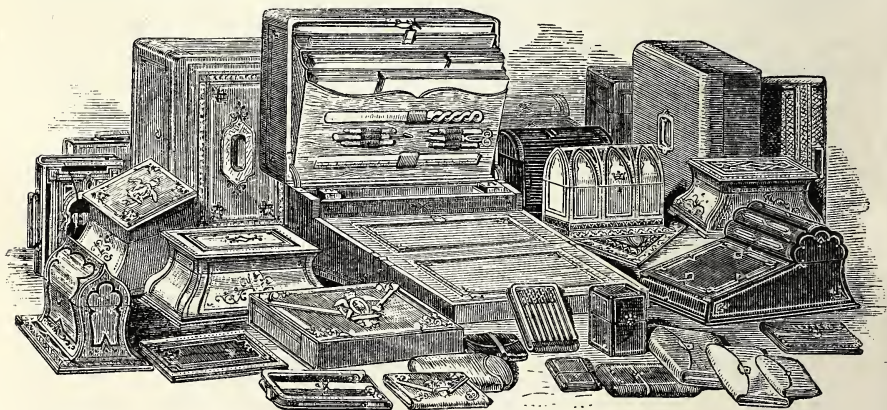
LONDON, 1851.
DUBLIN, 1849.

CLASS VII. No. 43.—IRISH LINEN PAPERS AND ACCOUNT BOOKS.—Papers made of unworn linen, celebrated for purity, colour, surface, texture, made in fifty varieties.

ACCOUNT BOOKS made of Irish linen papers. Superior in style, finish, strength of sewing, neatness and novelty of external and internal construction; open perfectly flat. Specimens of engraved monograms and heraldic devices.

PAPIER DE TOILE D'IRLANDE.—Papier fabriqué de toile neuve, célèbre par sa pureté, surface, et tissu, en cinquante sortes différentes.

LIVRES DE COMPTES en papier de toile d'Irlande. Joignent à une grande solidité de couture, élégance et nouveauté de fabrication à l'intérieur, comme à l'extérieur; s'ouvrent de manière à présenter une surface parfaitement unie. Monogrammes et dessins héraldiques, gravés.



CLASS XXVI.—FANCY LEATHER GOODS.—Useful and ornamental articles, intended for presentation to H.I.M. the Emperor of the French, H.R.H. the Prince of Wales, the Princess of Wales, &c. Elegant desks, despatch boxes, and illuminated leather work, 'The Jockey Club' betting-books, portemonnaies, pocket books, jewel boxes, tourist cases, &c.

CLASS VII. No. 43.—BOOKBINDING.—Inlaid and tooled work of ancient and modern styles. Elegantly bound works of English literature, in calf, morocco, russia, and vellum. The *album perfectionné*, *album héraldique*, *album enluminé*, etc.

OBJETS DE LUXE EN CUIR.—Objets d'art et d'utilité, destinés à S.M.I. l'Empereur des Français, LL.AA.RR. le Prince et la Princesse de Galles, etc. Articles de bureau, objets en cuir enluminé livres d'engagements du Jockey Club; porte-monnaies, livres de poche, écrins superbes, boîtes à dépêches, portefeuilles, et nécessaires de touriste, bureaux, etc.

RELIURE.—Reliure en mosaïque et façonné, styles anciens et modernes. Œuvres anglaises, élégamment reliées, en veau, maroquin, cuir de Russie et velin. Album perfectionné, album héraldique, album enluminé, etc.

CLASS VI. — ILLUMINATING ON VELLUM.
ILLUMINATED BOOKBINDING.—Revival of Celtic
Art. Elaborately finished volumes serving to
illustrate the progress of modern illumination.

ENLUMINURE SUR VELIN.—RELIURE ENLU-
MINÉE.—Restauration de l'art celtique. Textes
magnifiquement enluminés servant à illustrer
le progrès dans l'enluminure moderne.

Volumes presented to H.R.H. the Prince of Wales on the occasion of his marriage, executed by M. W. & Co. Six volumes graciously lent for exhibition by His Royal Highness.

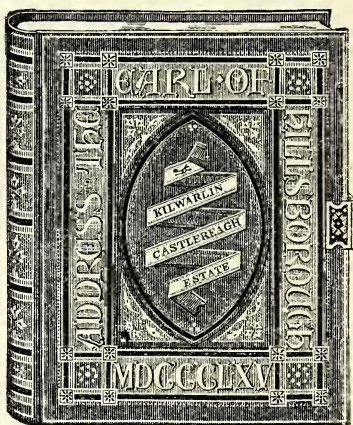
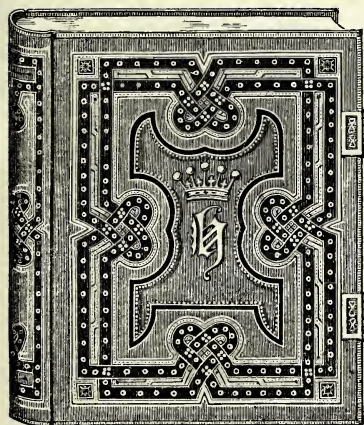
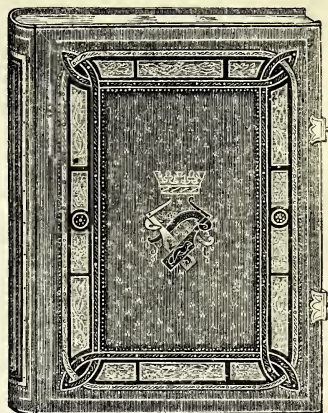
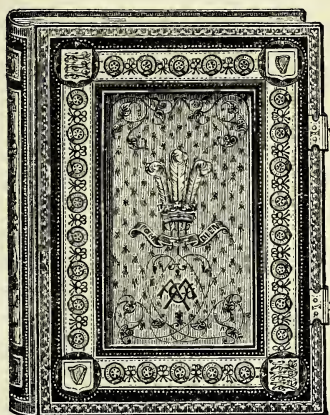
Volumes présentés à S.A.R. le Prince de Galles, à l'occasion de son mariage, exécutés par M. W. et Cie. Six volumes gracieusement prêtés à l'Exposition par Son Altesse Royale.

Illuminated volumes presented to the Earl of Hillsborough, from the tenantry of the Marquis of Downshire's Estates. Eight volumes lent for exhibition.

Volumes enluminés présentés à Lord Hillsborough de la part des habitants des terres de M. le Marquis de Downshire. Huit volumes prêtés à l'Exposition par Lord Hillsborough.

Illuminated volumes, presented to B. L. Guinness, Esq., M.P., recording his munificent restoration of St. Patrick's Cathedral, Dublin. Lent by Mr. Guinness.

Volumes enluminés, célébrant la restauration de la Cathédrale de S. Patrick à Dublin, par M. Guinness, M.P., Toutes les illustrations sont des dessins originaux par M. W. et Cie.



The illuminations and illustrations in these volumes are all original designs by M. WARD & Co.

CLASS VIII.

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON.

ILLUSTRATIONS OF THE COURSE OF DRAWING, PAINTING, MODELLING, AND STUDIES FOR THE IMPROVEMENT OF MANUFACTURES.

No. of Frame	Stages of the Course	Students' Name and School
3	Exercises worked in forty minutes by children in schools for the poor	
4	Exercises worked in one hour by students in Schools of Art under examination. (See p. 54.)	
5	Ditto	
6	Ditto	
57	STAGE 1. Section <i>a</i> . Linear geometry	Thomas Shaw, Lancaster School of Art
on screen 58	Sect. <i>b</i> . Mechanical drawing	Robert F. Walsh, Dublin School of Art
on screen 59	„ Sect. <i>c</i> . Linear perspective	S. L. Fildes, Warrington School of Art
on screen 7	„ Sect. <i>b</i> . Details of architecture	A. A. Bradbury, Leeds School of Art
8	STAGE 1. Sect. <i>c</i> . Perspective	Matthew Doubleday, Nottingham S. of Art
60	STAGE 2. Freehand outline drawing from flat examples	John Mitchell, Aberdeen School of Art
on screen 9	STAGE 3. Freehand outlinedrawing from the round	Benjamin Perks, Kidderminster School of Art
10	STAGE 4. Shading from flat examples	Fred. C. Sadler, Charterhouse Sch. of Art
on screen 61	STAGE 5. Sect. <i>a</i> . Shading from the round models	H. H. Lock, S. Kensington School of Art
11 {	„ Sect. <i>b</i> . Ornament	A. J. Brophy, S. Kensington Sch. of Art
	„ „ „	Cath. Spragge, St. George's in the East School of Art
12	STAGE 6. Sect. <i>a</i> . Drawing the human figure from flat examples	J. C. Nevett, Exeter School of Art
13	„ Sect. <i>b</i> . Shaded after Mulready	C. Gregory, Wolverhampton School of Art
14	STAGE 7. Drawing flowers and foliage from flat examples	J. Touchhouse, Manchester School of Art
15	STAGE 8. Drawing the human figure from the round, and nature	
16	„ Sect. <i>a</i> . Outline from casts	William Ford, S. Kensington Sch. of Art
17	„ Sect. <i>b</i> 1. Details shaded	Z. Pritchard, Macclesfield School of Art
	„ Sect. <i>b</i> 2. From the antique (shaded)	John Menzees, S. Kensington Sch. of Art
18	„ Sect. <i>c</i> . From the life	Herbert Lees, S. Kensington School of Art
19	„ „ „	Raymond Tucker, S. Kensington Sc. of Art
20	„ Sect. <i>d</i> . From the life (draped)	Isabel Sawkins, S. Kensington Sch. of Art
on screen 74	„ Sect. <i>e</i> . Time study from antique human figure	J. S. Rawle, S. Kensington School of Art
21	„ „ Time study	S. F. Mills, S. Kensington School of Art
	„ „ „	L. Casey, S. Kensington School of Art
22	STAGE 9. Anatomical studies	
23	„ Sect. <i>a</i> . The bones	W. Pilsbury, S. Kensington School of Art
24	„ „ Human figure (muscles)	W. Pilsbury, S. Kensington School of Art
56	„ Sect. <i>b</i> . Human figure (modelled)	H. Montford, S. Kensington Sch. of Art
25	STAGE 10. Drawing flowers and foliage from nature	
	„ Sect. <i>a</i> . In outline	Cath. Edwards, S. Kensington Sch. of Art
26	„ Sect. <i>b</i> . Shaded	George Theaker, Sheffield School of Art

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON—*cont.*

No. of Frame	Stages of the Course	Students' Name and School
27	STAGE 11. Painting ornament from flat examples	William Reid, Paisley School of Art
28	STAGE 12. Painting ornament from casts	J. Brennan, S. Kensington School of Art
29	STAGE 13. Painting from flat examples	J. C. Harrison, Leeds School of Art
30	" Sect. <i>a.</i> Flowers and foliage	Stephen Thomas, S. Kensington S. of Art
31	" " " "	J. Ford, S. Kensington School of Art
32	" " " "	A. Nicholls, S. Kensington School of Art
33	STAGE 14. Painting from nature	
75	" Sect. <i>a.</i> Flowers and foliage	F. A. Slocombe, S. Kensington Sch. of Art
on screen	" " " "	F. A. Slocombe, S. Kensington School of Art
34	" " " "	J. Menzies, S. Kensington School of Art
62	" Sect. <i>b.</i> Landscape	John Kemp, S. Kensington School of Art
on screen		
35	STAGE 15. Painting groups as compositions of colour	S. F. Mills, S. Kensington School of Art
36	" " " "	John Randall, S. Kensington Sch. of Art
37	" " " "	John Menzies, S. Kensington Sch. of Art
38	" Time studies	J. T. Short, S. Kensington School of Art
39	" " " "	D. Wood, S. Kensington School of Art
40	STAGE 16. "Painting" in monochrome from the antique	Edith Dunn, S. Kensington School of Art
41	STAGE 17. Painting the human figure	
42	" Sect. <i>a.</i> From flat examples	W. S. Cosbie, S. Kensington Sch. of Art
43	" Sect. <i>b.</i> From nature	E. Wilson, S. Kensington School of Art
68	" " " "	R. T. Waite, S. Kensington School of Art
on screen	STAGE 18. Modelling ornament	
69	" Sect. <i>a.</i> From casts	W. A. Morley, S. Kensington Sch. of Art
on screen	" Sect. <i>b.</i> From drawings	W. A. Morley, S. Kensington Sch. of Art
70	STAGE 19. Modelling the figure	
on screen	" Sect. <i>a.</i> From casts	John Griffiths, S. Kensington Sch. of Art
71	" Sect. <i>b.</i> From drawings	John Griffiths, S. Kensington Sch. of Art
on screen	" Sect. <i>c.</i> From nature	John Griffiths, S. Kensington Sch. of Art
72		
on screen		
73	STAGES 20 Modelling flowers, fruit, and	T. Clack, S. Kensington School of Art
on screen	& 21. foliage from nature	
63	STAGE 22. Elementary design	
on screen	" Sect. <i>a.</i> Ornamental analysis from nature	G. Wardle, S. Kensington School of Art
44	" Sect. <i>b</i> & <i>c.</i> Ornamental arrangements to fill given spaces	John S. Rawle; W. A. Boon; Florence Collins; S. Kensington School of Art
45	" Sect. <i>d.</i> Studies of historic styles of ornament	W. Pilsbury, S. Kensington School of Art
46		
47	STAGE 23. Applied designs and technical studies	
48	" Sect. <i>a.</i> Architectural drawing from measurement	A. Sadler; I. L. Dominy; S. Kensington School of Art
49	" " Machine drawing from measurement	C. Richards, S. Kensington School of Art
on screen	" Sect. <i>b.</i> Architectural design	T. W. Moody, S. Kensington School of Art
64		
on screen		
65		
on screen		

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON—*cont.*

No. of Frame	Stages of the Course	Students' Name and School
66 on screen	STAGE 23. Sect. <i>b</i> . Architectural design	James Dundas, S. Kensington Sch. of Art
50	" Sect. <i>c</i> . Surface design	Sarah J. Edgley, S. Kensington Sc. of Art
51	" " " "	F. W. Andrew, S. Kensington Sch. of Art
52	" " " "	E. Chandler, S. Kensington School of Art
53	" " " "	Charlotte Gibbs, S. Kensington Sc. of Art
54	" Sect. <i>d</i> . Plastic design	J. Randall, S. Kensington School of Art
55	" " " "	F. A. Slocombe, S. Kensington Sch. of Art
67 on screen	" " " "	F. A. Slocombe, S. Kensington Sch. of Art

SUMMARY OF THE ASSISTANCE AFFORDED BY THE STATE IN PROMOTING INSTRUCTION IN SCIENCE AND ART AMONG THE INDUSTRIAL CLASSES.

DIVISION FOR ART.

A sum of money is voted annually by Parliament for the purposes of Science and Art.

This sum is administered by the Science and Art Department of the Committee of Council on Education.

A portion of the sum voted is set apart for the promotion of instruction in Art in the United Kingdom.

The object of this grant is to promote instruction in Drawing, Painting, and Modelling, and designing for Architecture, Manufactures, and Decoration, especially among the industrial classes.

To effect this object the Department gives aid towards the teaching of Elementary Drawing in Schools for the children of the Poor; towards the teaching of Drawing in Night Classes for Artisans; towards instruction in Art in Schools of Art; and towards the Training of Art Teachers. The collection of Decorative Art at South Kensington is also made available for the purposes of instruction in Schools of Art.

1. AID TO SCHOOLS FOR THE POOR.

A School for the Poor is one established to promote the education of children belonging to the classes who support themselves by manual labour.

Annual examinations in Drawing are conducted in the month of May, by the Managers of Schools for the Poor who provide the necessary room, or rooms. The children must have been taught drawing by teachers holding certificates granted by the Department. The examination papers are supplied by the Department if application be made before the 14th of April; and when worked, under prescribed regulations, are returned to the Secretary of the Science and Art Department. Payments of 1s., 2s., or 3s., in proportion to the proficiency shown by the children, and of 10s. on account of pupil teachers, are made to the Managers of the School, who also receive an

allowance of 20s. for conducting the examination in accordance with the regulations. A prize is given to every child who exhibits the required standard of excellence.

2. AID TO NIGHT CLASSES.

A Night Class is a class for instruction in Elementary Drawing held after six p.m., to which the public is admitted on payment of fees within the reach of persons who support themselves by manual labour.

Annual examinations in Drawing are held, in the month of March, by the Local Committees or Managers of Night Classes. The papers are supplied by the Department if application be made before the 10th February; and when worked are returned to the Secretary of the Science and Art Department by the first post after the examination. If instruction in drawing has been given by teachers holding certificates granted by the Department, a payment of 10s., under prescribed regulations, is made to the Local Committee, or Managers, on every exercise satisfactorily worked in a given time, by an artisan, and of 15s. on every artisan who may submit a set of satisfactory works executed by him in the class during the previous year. The Local Committee, or Managers, also receive an allowance of 2% for conducting the examination according to the regulations. Prizes of books, colours, instruments, &c., are awarded to students, whether they be artisans or not, who excel in the examinations, or who submit satisfactory works.

Examinations are held in places where no Night Class exists, provided they are conducted by a responsible Committee approved by the Department. Prizes are given to successful candidates, but no payments are made on account of the success of students instructed by uncertificated teachers. The examinations in Night Classes must be open to all students who may present themselves to be examined.

3. AID TO SCHOOLS OF ART.

A School of Art is a room or rooms devoted wholly to instruction in Art, where examples of Art are always open for study and inspection, and where the Managers employ a teacher who has taken an Art teacher's certificate of the 3rd Grade. In Schools of Art the students pay fees of 2s. per month, and upwards; Classes meeting in the day time paying higher fees than the Night Classes.

The Science and Art Department aids the instruction given in Schools of Art to artisans, and teachers, when under the direction of a Local Committee of not less than five well known responsible persons. Provided Day Classes are held and that artisan Evening Classes meet under the instruction of the master at least three times in each week for two hours.

Annual examinations are held under the same conditions and with the same encouragement as those in Night Classes.

Payments are made to the Local Committee of 10s. on every exercise satisfactorily worked in a given time by an artisan; of 15s. or 20s. on every artisan who may submit a set of satisfactory works executed by him in the school; of 10l. or 20l. in aid of the salary of Art-pupil-teachers; of 5l. on every artisan student trained in the school who may obtain a National Scholarship; of 10l. on 3rd grade certificates obtained by artisans or teachers trained in the school; and of 10l. on the proper keeping of the necessary registers, and for forwarding an annual report on a prescribed form. Prizes are given to students who excel in the examinations, and to students who send up elementary works of great merit. The examinations are open to all persons who may desire to present themselves.

The best works in other than the elementary stages of instruction by students, whether artisans or not, in drawing, painting, modelling, or designing, are selected to enter into a National Competition between the works of all the Schools of Art in the Kingdom, and medals of gold, silver, and bronze, and prizes are awarded to the students who have executed the most meritorious of the competing works.

4. THE NATIONAL ART TRAINING SCHOOL.

The National Art Training School is established at South Kensington for the purpose of training Art-masters, and mistresses for the United Kingdom, and for the instruction of students in designing, &c., to which male and female students are admitted when properly qualified; receiving an allowance, in aid of their maintenance, of from 5s. to 25s. per week, which is proportioned to their attainments, and to their qualification for the duties of teaching required from them. When such students have obtained certificates of qualification, they are appointed by the Local Committees, teachers

to the Schools of Art throughout the United Kingdom.

National Scholarships in the Art Training School are offered for competition amongst Schools of Art. They are tenable for one or two years by successful students, who are admitted to study in the Art Museum, with special reference to the manufactures of the district from which the students are selected. A maintenance allowance of 20s. or 40s. per week is made during the time allotted to study.

Certificates of competency to teach are given to candidates who pass the necessary examinations.

These are called Certificates of the 3rd Grade.

The following are the Groups which form the subjects of Certificates:—

GROUP 1.—ELEMENTARY DRAWING AND COLOURING, with Examinations in Geometry, Perspective, Mechanical and Architectural Drawing. Stages, 1, 2, 3, 4, 5, 6, 7, 10, and 13.

GROUP 2.—PAINTING, with Examination in Styles of Art, and in the elementary principles of ornament, technicalities of painting and botany. Stages 11, 12, 14, 15, and 22.

GROUP 3.—THE FIGURE DRAWN and Painted, with Examination in the historic styles of ornament and anatomy. Stages 8, 9, 16, and 17.

GROUP 4.—MODELLING ORNAMENT, with Examination in Styles of Art, and in the elementary principles of ornament. Stages 18, 20, and 22.

GROUP 5.—MODELLING THE FIGURE, with Examination in the historic styles of ornament and anatomy. Stages, 8, 9, 19, and 21.

GROUP 6.—TECHNICAL INSTRUCTION with Examinations in Architecture and Ornament.

The Examinations take place annually at the offices of the Department, South Kensington, in the month of February.

5. CIRCULATION OF EXAMPLES AND BOOKS.

Every School of Art is privileged to borrow objects from the Museum, and examples, books, &c., from the National Art Library; both these institutions being, as far as possible, circulating institutions for the benefit of the United Kingdom.

6. GRANTS FOR PURCHASE OF EXAMPLES.

All Schools of Art, Public Schools for the education of the poor, and Mechanics' and other institutions for artisans, may obtain grants, of 50 per cent. on the cost, in aid of purchasing examples, models, casts, and other apparatus for Art instruction.

SCIENCE SCHOOLS AND CLASSES IN MAY, MDCCCLXV. AND MDCCCLXVI.

Schools in *italics* are Navigation Schools which were not examined in May.

TOWN	WHERE HELD	SECRETARY	TEACHER	No. under instruction	
				1865	1866
ENGLAND.					
ACCRINGTON	Mechanics' Institution ..	Ratcliffe, Wm.	Gunn, W.	*	23
ALDERLEY EDGE ..	Day School-room	Railton, G. W.	Slater, James K. ; ..	*	21
			Jones, Thomas		
ALMONDBURY	King James' Grammar School	Jones, Rev. Lewis ..	Jarmain, G.	33	20
ANDOVER	Mechanics' Institution ..	Footner, Richard.	Marriott, J. T.	17	37
ASHBY-DE-LA-ZOUCH	Mutual Improvement ..	Dalby, John	Gibson, George H.	*	34
	Society				
ASHTON-under-LYNE .	Mechanics' Institution ..	Howorth, Daniel F. .	Butterworth, Thomas ..	*	20
BACUP	Mechanics' Institution ..	Newbigging, Thomas	Shore, Thomas W.	30	38
BANBURY	British School	Cadbury, J.	Beale, J. H.	38	36
BIRMINGHAM	Midland Institute	Smith, Edwin	Woodward, C. J.	147	122
BLACKBURN	Mechanics' Institution ..	Hand, Thomas.	Gunn, William.	*	20
	Wesleyan School.	Parkinson, Giles	Isherwood, Thomas ..	*	11
BODMIN	Literary Institution	Phillips, Josias.	Downing, Samson	8	43
BOLTON	Bridge Street Schools ..	Marsden, P. C.	Ward, Thomas.	*	65
"	Mechanics' Institution ..	Lowe, Rev. J.	Ward, T. ;		95
			Mellor, J. ;	126	31
"	Holy Trinity Working Men's Institution	Lowe, Rev. J.	Spriggs, C. ;		
"	Independent Methodist School	Vickers, James.	Collins, John .....			*	34
BRISTOL	Diocesan Trade School ..	Wilkson, John.	Collins, John		
			Coomber, T. ;	175	130
BURNLEY	Ch. of Eng. Liter. Inst..	Briggs, B. W.	Leipner, A. ;		
"	Fulledge Wesleyan School	Howorth, John	Plant, E. C.	42	70
"	Carlton-road School	Greenwood, David ..	Gunn, W. ; Pickup, W. .	*	20
"	Grammar School.	Sutherland, J.	Healey, Thomas	*	62
"			Gunn, William	50	50
"	Westgate School	Massey, J.	Shore, T. W. ;		
"	Mechanics' Institution ..	Sutherland, J.	Wilkinson, T. T.	29	20
BURY	Athenæum	Merchant, C. M.	Clement, Leonard ..	23	60
CAMBORNE	British Schools	Pike, J. W.	Healey, T.		
CARDIFF	Free Library.	Price, Peter	Spriggs, C. ; Ward, T. .	52	60
			Foster C. Le Neve, D. Sc.	*	21
			Robotham, W. ;		56
			Bush, James		
CHELTENHAM	Sc. of Sci., Bedford-bdgs.	Moore, H. J.	Notcutt, W. L.	98	145
CHESTER	Mechanics' Institution ..	Harris, Rev. J.	Davidson, E. A.	47	64
CHRISTCHURCH	Working Men's Institute.	Jenkins, Henry	Judd, W.	13	12
CLITHEROE	Mechanics' Institution ..	Mercer, Jno., Jun. .	Gunn, William	*	30
COTTESMORE	National School	Miles, Rev. S.	Cattell, T.	*	14
CREWE	Mechanics' Institution ..	Stubbs, T.	Davidson, E. A.	30	24
DROYLSDEN	Educational Institute ..	Blackburn, J.	Spriggs, Christopher ; .	44	69
			Hartley, Joseph		
DUKINFIELD	Village Lib. & Rdg. Rms.	Kynder, J. B.	Salter, E.	16	7
EASTINGTON	National Schoolroom.	Hooper, C. H.	Pullen, M. ; Wilcox, E. .	45	15
EASTWOOD	Mechanics' Institution ..	Plumtre, Rev. H. W. .	Forbes, D. M.	*	28
ELLAND	Mechanics' Institution ..	Kaye, Uriah	Jarmain, G.	*	23
EXETER	Literary Society	Tucker, J. T.	D'Urban, W. S. M. ; .	34	44
			Perkins, F. P.		
FALMOUTH	National School	Carne, William	Shaw, Henry C.	*	13
GLOSSOP, Littlemoore.	Mechanics' Institution ..	Wood, Samuel	Gee, W.	*	22
GLOUCESTER	Blue Coat School	Fowler, Rev. H.	Jeffery, W.	44	45
GREENWICH	Literary Institution	Jordan, C. H.	Jones, Thomas ;	30	26
			Busbridge, W.		
"	Workmen's Club	Harding, C.	Farncomb, E.	*	9
GUISBOROUGH	Mechanics' Institution ..	Webster, Thomas ..	Weatherill, Robert.	*	25
HALIFAX	Working Men's College. .	Gibb, G.	Jarmain, G. ;	45	15
			Parke, G. H.		
HASLINGDEN	The Institute	Binns, John	Shore, Thomas W.	17	29
HEYWOOD	St. Luke's School.	Smith, Rev. C. W. .	Wheeler, G. H.	*	23
HUDDERSFIELD	Mechanics' Institution ..	Rhodes, G. W.	Jarmain, G.	35	26
HULL	Navigation School	Wilson, E. S.	Scaping, Zebedee.	74	79
HULME	Working Men's Institute	Birch, W. J.	Richardson, Joseph, Jun.	*	11

SCIENCE SCHOOLS AND CLASSES—*cont.*

TOWN	WHERE HELD	SECRETARY	TEACHER	No under instruction	
				1865	1866
ENGLAND— <i>cont.</i>					
HULME	Christ Church Institute	Turner, Wm.	Hartley, J.	24	10
HYDE	Mechanics' Institute	Lawton, Thomas....	Gee, W.; Fallows, J. F.; Angell, John	*	47
KIDDERMINSTER	School of Art	Harvey, J. K.	Packer, M. W.	8	24
KINVER	National Schoolroom....	Bolton, Thomas	Packer, M. W.	22	24
LEEDS	Mechanics' Institution	Dayson, J. O.	Ward, George	49	33
LEICESTER	St. Martin's School	Jones, H. S.	Atkins, E.	29	40
LIVERPOOL	Free Library	Messrs. Gregson and Moore	Birkenhead, E. H., D. Sc.	39	28
LLANELLY	Copper Works' School...	Davies, John	Jones, John	*	32
LONDON:—					
BETHNAL GREEN.....	Birkbeck School	Rüntz, George	Pike, R. W.	97	119
"	Nat. Sch., Church-room	Halliday, James	Simpson, B.	32	29
CAMDEN TOWN.....	Camden Hall	Waterman, O.	Snelus, G. J.	13	38
CHELSEA	St. Mark's College	Benham, Rev. W.	Atkins, G.; Briggs, H.	*	64
CITY OF LONDON COL.	52 Leadenhall-street	Maskell, Rev. J.	Gibson, Rev. B. W.	*	22
GREAT ORMOND-ST.	Working Men's College	Shorter, T.	Grueon, A.; Tate, R.	7	7
HOMERTON	Parochial School	Goshin, John	Crowe, William	*	33
ISLINGTON	Lower-rd. Public School	Ross, John	Howard, John	90	104
KINGSLAND	British Schools	Hoskins, W. H.	Jones, Alfred; Tate, R.; Bithell, R.; Grueon, A.	64	45
LAMBETH	178 Waterloo-road	Ward, W.	Jones, T.; Duckett, W.; Busbridge, W.	*	26
POLYTECHNIC	Royal Polytechnic Inst.	Cousens, James	Snelus, G. J.; Coles, F.	15	32
LONDON MECHANICS' INSTITUTE	29 Southampton Builds. Chancery-lane.	Pearsall, T. J.	Coles, Ferdinand	*	17
LOUGHBOROUGH	The Institute	Marshall, T. W.	Scott, John	23	18
MACCLESFIELD	Mechanics' Institute	Brooker, John	Wire, Alfred P.;	26	
"	Modern Free School	Brooker, John	Jackson, John.	61	38
MANCHESTER	Cathedral Schools	Huntington, Rev. G.	Collins, John	23	25
"	68 Corporation-street .....	.....	Lighbown, J.	56	42
"	Mechanics' Institute	Jarrett, Albert	Angell, J.; Mellor, J.; Collins, J.; Spriggs, C.	358	388
"	Roby Literary Society ..	Ellis, Robert P.	Schofield, J.	*	9
MIDDLESBRO'-on-TEES ..	Mechanics' Institute	Taylor, W.	Stock, H. F. K.	13	13
MIDDLETON	National School	Ward, Rev. C. B.	Wheeler, George H.	*	17
NELSON-IN-MARSDEN ..	Lomeshaye Mills	Waddington, J.	Clement, Leonard	28	36
NEWPORT (Mon.)	Athenæum	Richards, T. Junr.	Bush, James	*	23
NEWTON HEATH	Mechanics' Institution ..	Evans, George	Hartley, J.	17	16
NORTH ORMESBY	Church Institute	Moyle, Rev. V. H.	Weatherill, R.	10	10
NOTTINGHAM	Mechanics' Hall	Thurlow, Richard	Sissling, W.; Wilson, T.	84	75
OLDHAM	Parish Church School ..	Walters, Rev. W.	Mellor, J.	97	46
"	Sc. & Art Sch., Union-st.	Bailey, T.	Rückert, L. C.; Mitchell, T.; Philip, J.	137	100
"	Analytical Society	Taylor, Henry	Senior, T.	25	13
PAINSWICK	Free School	Skinner, John W.	Pullen, M.	11	12
PENDLETON	Mechanics' Institution ..	Harrop, Joseph	Hartley, J.	21	17
PLUMSTEAD	Burrage-road School	Hammond, J.	Rowden, W. T.; Shipman, Charles	*	57
PLYMOUTH	Science School	Cawse, J. H. M.	Evers, H.; Hearder, J. N.; Holmes, T.; Rickard, G. J.	†	124
"	Navigation School	Cumming, W. B.	Merrifield, J. ....	..	379
PONTYPRIDD .....	.....	Bussett Charles	Robotham, Wm.	†	36
PRESTON	Institution for Diffusion of Useful Knowledge ..	Dunn, James	Birkenhead, E. H.	31	23
PURLEIGH .....	.....	Lufkin, Charles	Goffin, R.	†	20
REDDITCH .....	.....	Milward, Victor	Mapp, George	32	16
REDRUTH .....	.....	Grylls, W. M.	Michell, Dr. T.	10	30
SALFORD	Working Men's College ..	.....	Hudson, W.	41	53
SLAITHWAITE	Mechanics' Institution ..	Pickles, J.	Parke, G. H.	14	16
"	Weeks and Walker's Educational Institute ..	Hulbert, P. W.	Parke, G. H.	14	13
SLOUGH	Mechanics' Institution ..	Chapman, J.	Dorrell, J.	60	65
STALEYBRIDGE	Mechanics' Institution ..	Newton, E. B.	Hudson, W.	31	29
ST. DAY	Science Schools	Hawke, E. H.	Foster, C. Le Neve, D. Sc.	11	15
ST. HELENS	Mechanics' Institution ..	Menzies, W. J.	Balmain, W. H.	†	22
ST. JUST	Science Schools	Boyns, R.	Foster, C. Le Neve, D. Sc.	21	17
STOCKPORT	Mechanics' Institution ..	Robinson, S.	Collins, J.; Davenport, T.	62	31
STOURBRIDGE	Grammar School	Welch, Rev. W. J. J.	Packer, M. W.	†	34
STONEHOUSE	The Institution	Boucher, Edwin	Vick, William	†	21
STROUD	The Institution	Foster, William	Vick, W.; Pullen, M.	63	45
TORQUAY	British School	Weeks, C.	Barter, W. A.; Viccars, T.	25	70

SCIENCE SCHOOLS AND CLASSES—*cont.*

TOWN	WHERE HELD	SECRETARY	TEACHER	No. under instruction	
				1865	1866
ENGLAND— <i>cont.</i>					
WALSALL	Science School	Irvine, Rev. A. C. ..	Jones, John	30	30
WIGAN	Mining and Mechan. Sch.	Peace, M. W.	Birkenhead, E. H.	93	30
WOLVERHAMPTON ..	Mowbray House School ..	Langley, Rev. J. N. ..	Jones, John	42	34
WOLVERTON	Science and Art Institute ..	Meadley, J.	Stone, W. ; Burgess, Rev. S. ; Wheatley, A.	48	50
WOOLWICH	Mech. Inst. Royal Arsenal ..	Keeble, W. D.	Jones, Thomas	62	62
"	National School	Wilson, James	Snelus, G. J.	21	24
YARMOUTH, Great....	Navigation School	Butcher, M.	Stockton, W.	163	139
YORK	York Institute	Hall, Robert	Crawley, S.	†	94
SCOTLAND.					
ABERDEEN	Mechanics' Institution ..	Sinclair, J.	Beveridge, Dr. R. ; Brazier, Prof. J. S. ; Maver, D.	40	91
CORSOCK .....	.....	Hourston, S.	Macomish, Margaret	24	13
DUNDEE	High School	Cumming, A. W.	Kennedy, J.	51	62
GLASGOW	Secular School	Cunliffe, R. S.	Mayer, J. ; Mayer, Mrs. ; McRae, J.	165	165
KILMARNOCK	New Public School	Crawford, Robert ..	Stevenson, James ; Dunn, H. S.	11	26
LEITH	Navigation School	Thomson, Rev. J.	Botam, James	231	213
IRELAND.					
ARMAGH	Armagh Science Class ...	Mills, L. G.	Ewing, S. ....	..	19
BALLYMENA	National School	Lynch, Rev. J.	Black, Robert	28	20
BANBRIDGE	Literary and Mutual Improvment. Soc's. Rooms	Black, Alexander ..	.....	..	..
BELFAST	Museum	Shepherd, William ..	Ferguson, W. H. ....	..	20
"	National Model School ..	" ..	Smeeth, R.	64	43
"	Royal Academical Instit.	" ..	McCrea, Dr.	36	64
"	Nat. Schl., Frederick-st.	" ..	Browne, W. M. ....	..	16
"	Rosemary-street	Nesbitt, Robert	McNeil, James .....	..	13
"	Great George-street	" ..	Barklie, R. ....	..	33
"	Model School	Moore, George L.	Wren, Edmond .....	..	23
BELFAST	Navigation School	Nesbitt, Robert ..	Doran, George	36	..
CARRICKFERGUS	Science and Nav. School ..	Nesbitt, Robert ..	Stevenson, J. McN.	10	46
CASTLEBAR	Presbyterian School	Cairns, Rev. J.	Baker, B. M. ....	..	7
COMBER	Smyth's National School ..	Withers, Robert	Greer, W. H. ; Erwin, M.	22	38
DUBLIN	Athenæum	Crory, W. G.	Dowling, John	36	24
DUNDALK	Free Library	Price, Newton	Lyons, M. ....	..	28
HOLYWOOD	Sullivan National School ..	Shepherd, William ..	Speers, Adam	60	56
KILKENNY	District National Model School.	Porter, Rev. J.	Ryan, Lawrence, J. ....	..	42
LARNE	North End National Sch.	Eccles, W.	Stevenson, J. McN. ; Hay, W. ....	..	9
"	Model School	Eccles, W.	Hay, W. ....	..	23
NEWPORT (Mayo)	Science Class	Bole, William	Baker, B. M. ....	..	11
NEWTOWNARDS	National Model School ..	Osborne, A. T.	Harbison, M. ; Greer, W. H.	60	90
OLDCASTLE	Endowed School	O'Neill, Richard	Beatty, J. ; Smyth, A. ..	126	147
PORTADOWN	Thomas-st. National Sch.	Applebe, Rev. W. P. ..	MacMillen, William ....	..	36
PORTAFERRY	National School	Orr, Rev. J.	Begley, George R. ....	..	28
SANTRY	Training School	Hackett, Rev. J. W. ..	Mayne, A. J. ; Engledow, W. H.	75	65
TULLAMORE	National School	Bradley, J. A.	Macgowan, F. M. ....	..	24
TRIM	Model School	Conwell, E. A.	Frechill, M.	†	46
WATERFORD	Model School	Cavet, James	Dowling, James	37	29

Total number under instruction in May (including under 1865 } under certificated teachers 4023 6844
those in Schools since closed and not named in the list.) } not under certificated teachers 692 ..

*† Schools established in 1865-6.

Totals . . 4715 6844

ROYAL SCHOOL OF NAVAL ARCHITECTURE AND MARINE ENGINEERING.

I. The School is for the instruction, not only of the Admiralty pupils from the Royal Dockyards and officers of the Royal Navy, but also for the use of Naval Architects and Shipbuilders in wood and iron, Marine Engineers, Foremen of Works, Shipwrights, and other persons desirous of studying Naval Architecture.

II. The Admiralty have deposited their collection of Naval Models at the South Kensington Museum, and My Lords trust that the private shipbuilders of the country will give their assistance in rendering the collection more complete.

III. The School has a yearly session at South Kensington of six months, from November to April. It was opened on the 1st November, 1864.

IV. The fee for the full course of instruction will be 25*l.* for each session of six months, or 60*l.* for the course of three years. The public will be admitted to the full corresponding courses of lectures on payment of a fee of 2*l.*, or to each separate course by fees which will be hereafter determined. So long as there is room in the School, the public will also have the opportunity of attending any of the separate classes of instruction on the payment of proportionate fees.

The number of Dockyard students for the Session 1866-7 is 30; number of public students 14; total 44.

DIVISION FOR SCIENCE.

(Extracts from the Science Directory.)

VI. The following are the Sciences towards instruction in which aid is given:—

Subject 1, Practical Plane and Descriptive Geometry.

„ 2, Mechanical and Machine Drawing.

„ 3, Building Construction, or Naval Architecture.

„ 4, Elementary Mathematics.

„ 5, Higher Mathematics.

„ 6, Theoretical Mechanics.

„ 7, Applied Mechanics.

„ 8, Acoustics, Light, Heat.

„ 9, Magnetism, and Electricity.

„ 10, Inorganic Chemistry.

„ 11, Organic Chemistry.

„ 12, Geology.

„ 13, Mineralogy.

„ 14, Animal Physiology.

„ 15, Zoology.

„ 16, Vegetable Physiology and Economic Botany.

„ 17, Systematic Botany.

„ 18, Mining.

„ 19, Metallurgy.

„ 20, Navigation.

„ 21, Nautical Astronomy.

„ 22, Steam.

„ 23, Physical Geography.

VII. The assistance granted by the Science and Art Department is in the form of—

1. Payments on results to certificated teachers.

2. Grants towards the purchase of apparatus etc.

3. Public examinations in which Queen's Medals, Honorary Certificates, and Prizes are awarded, held at all places complying with certain conditions. On the results of these examinations the payments are made to the teachers.

VIII. Examinations for certificates to teach any of the before-mentioned sciences are held annually commencing in the first week in November, at South Kensington. Examinations will also be held in Dublin, Edinburgh, and Manchester, if five candidates register themselves for examination in Ireland and in Scotland.

X. A local Committee of not less than five well known responsible persons must be formed in connexion with every Science class who will carry out the instructions.

XI. The Department holds, through the

agency of each Local Committee, in May of each year, a public examination of all Science schools and classes in any locality throughout the United Kingdom which complies with the requisite conditions. On the results of this examination the payments are made to certificated teachers.

XII. A School or class taught by a teacher not holding a certificate, may be examined at the same time and in the same manner as the classes under certificated teachers.

XIV. Any persons whatever, whether taught by the certificated teacher or not, may present themselves at the local examination on registering their names, etc.

XV. The successful candidates at the May examination and the quarterly examinations of seamen are classified under the heads of first, second, third, fourth, and *fifth* class. The standard of attainment required may be raised from year to year. For the *fifth* class it is only such as will justify the Examiner in reporting that the instruction has been sound, and that the students have benefitted by it. Those who have attained a higher degree of proficiency are classed as 4th, 3rd, 2nd, or 1st class, according to their merit.

XVI. To the 1st, 2nd, and 3rd class are given Queen's prizes consisting of books or instruments chosen by the candidates from lists furnished for that purpose. These are unlimited in number, except that a student who has once received a 1st, 2nd, or 3rd class Queen's prize, cannot receive the same or a lower class prize in the same subject again. If such student should be again successful, his name will simply be recorded in the published list.

XVII. The Queen's medals are—one gold, one silver, and two bronze in each subject, for competition throughout the United Kingdom.

XVIII. Payments are made to the certificated teacher on account of the instruction of students of the Artisan Classes (for definition of Artisan Class, see Science Form No. 51, page 24) in the following manner:—

1*l.*, 2*l.*, 3*l.*, 4*l.*, 5*l.* are the claimable payments for each student in each subject, according to the class in which he passes, but these amounts may be reduced in the following ways:—

1st. If the student has been successful in the same subject before such payments are reduced by the normal payment which was claimable on such previous success; for instance, the 4*l.* payment for a second class,

would if the student had previously taken a fourth class, be reduced by 2*l*.

2nd. If a student be successful in more than one subject at an examination, the payments on account of such further subjects are reduced by one half.

3rd. When on this scale they would amount to more than 60*l*. the excess up to 40*l*. is diminished by one quarter, the excess above 40*l*. by one half. Thus payments which on the above scale would be 100*l*. and 150*l*. will be reduced to 90*l*. and 115*l*. respectively:—provided that the student has received 25 lessons at least from the teacher in each subject in which he claims payment since the last examination, each lesson being an attendance at a meeting of the school of at least three-quarters of an hour's duration on a separate evening. The 25 lessons need not necessarily be all given in one year, but may extend over a longer period.

XXI. A grant towards the purchase of

apparatus, diagrams, &c., of 50 per cent. on the cost of them, is made to science schools and classes in Mechanics' and similar institutions where the teacher is certificated, and to the extent of 5*l*. to other poor schools and classes. A requisition must in these cases be made on Form No. 49.

At South Kensington, the 12th day of February, 1867.

BY THE RIGHT HONOURABLE THE LORDS OF HER MAJESTY'S MOST HONOURABLE PRIVY COUNCIL ON EDUCATION.

Present,—His Grace the Duke of Buckingham and Chandos, Lord President.

The Right Honourable H. Lowry Corry, M.P., Vice President.

My Lords consider the subject of examinations for certificates as teachers of science.

They determine that for the future all candidates who obtain a first or a second class in the May examinations shall be deemed qualified to earn payments on results according to the rules of the Science Directory, and that the special examinations in November for teachers' certificates be dispensed with.

SOUTH KENSINGTON MUSEUM.

This Museum commenced with the erection in 1856 of an iron structure of the simplest kind. It was built under the superintendence of Sir W. Cubitt, and when completed was given by the Commissioners of the Exhibition of 1851, into the possession of the Science and Art Department. Since that date a permanent brick and iron structure, with terra cotta decorations, has been built. The building was planned, and its construction superintended up to the year 1865, by the late Captain Fowke, R.E., architect of the building for the International Exhibition of 1862. Its decorations, external and internal, were designed by the late Mr. Godfrey Sykes, originally a student of the Sheffield School of Art. Specimens of terra-cotta decoration designed by this artist may be seen in the Champs de Mars.

The contents of the South Kensington Museum may be classified as follows:—

1. The Art Collections, which now number 12,530 objects, illustrative of the history, principles, and processes of decorative art in sculpture, carvings in wood and ivory, decorative furniture, metal work, goldsmiths' work, jewellery and lapidaries' work, engraved gems, niello work, arms, armour, pottery, glass, enamels, ancient lac work, textile fabrics, miniatures, &c., &c. An important feature in these collections is the reproduction by means of casting, and electrotypy, of rare and costly works of art in other countries, with which the Department of Science and Art is desirous of effecting exchanges of such reproductions. Another feature

is the permanent Loan Exhibition of valuable objects of art belonging to private owners; such are many of the works now being exhibited at Paris, in the History of Labour Collection. The museum also contains a large and valuable number of modern English paintings mainly presented by the late J. Sheepshanks, Esq., and water-colour drawings, principally bequeathed by the late R. Ellison, Esq., as well as the Cartoons of Raphael lent by Her Majesty; and it affords temporary accommodation for the exhibition of many paintings of the British School which belong to the National Gallery.

2. The Art Library containing about 15,000 volumes relating to art, and a great number of original drawings, illuminations, and engravings.

3. The Educational Museum and Library, containing many educational works in various European languages, and scientific apparatus and diagrams, chiefly lent by the inventors and publishers.

4. The Museum of Construction and Building Materials, containing examples of materials and apparatus of use in building, draining, and decorating houses; and many architectural models.

5. The Museum of Animal Products and Food Collection, principally formed by the transference by English and foreign commissions of collections exhibited in the International Exhibitions of London in 1851 and 1862, and of Paris in 1855.

6. The Naval Models, belonging to the Admiralty, supplemented by loans from private

builders and owners. The Admiralty Collection shows the various changes in the construction of men-of-war from 1416 down to the present time.

Descriptive labels are attached to all objects in the Museum, to avoid compelling visitors to purchase catalogues, which however, may be obtained in the building.

The following are the terms on which the Museum is open to the public, and the tables show the number of visitors since the opening of the Museum in 1857.

The Museum is open daily, Sundays excepted, free on Mondays, Tuesdays, and Satur-

days, from 10 a.m. till 10 p.m. The Students' days are Wednesdays, Thursdays, and Fridays, when the public are admitted on payment of 6d. each person, from 10 A.M. till 4 P.M.

Tickets of admission to the Museum, including the Art-library and Educational Reading-room, are issued at the following rates:—weekly, 6d.; monthly, 1s. 6d.; quarterly, 3s.; half-yearly, 6s.; yearly, 10s. Yearly tickets are also issued to any school at 1l. which will admit all the pupils of such schools on all students' days; to be obtained at the catalogue sale-stall of the Museum.

ATTENDANCE AT THE MUSEUM.

1866	Free Days		Students' days	Totals	Corresponding Numbers in			
	Morning	Evening			1865	1864	1863	1862
January . .	33,204	21,702	7,582	62,488	52,631	41,594	42,546	48,240
February . .	25,498	19,817	6,723	52,038	42,249	38,985	41,697	55,123
March . . .	27,452	20,427	7,850	55,729	46,128	71,009	42,901	64,631
April . . .	41,608	23,365	16,033	81,006	69,376	56,363	206,548	90,474
May . . .	43,406	23,679	26,187	93,272	53,762	54,322	90,899	65,414
June . . .	21,788	18,335	21,471	61,594	83,187	51,213	44,409	129,352
July . . .	27,128	17,412	16,653	61,193	61,150	52,810	37,998	163,662
August . .	29,293	23,375	29,640	82,308	71,245	65,399	41,722	162,142
September .	25,369	21,104	5,044	51,517	59,416	52,274	48,632	167,945
October . .	28,468	22,164	6,215	56,347	54,174	59,001	46,622	171,225
November .	21,522	14,578	6,260	42,360	39,825	42,691	34,538	74,832
December .	37,668	14,443	3,612	55,723	59,811	67,408	48,403	48,329
Totals . .	362,404	240,401	153,270	756,075	692,954	653,069	726,915	1,241,369

Total since the opening of the Museum on June 22, 1857, 6,485,572.

COMPARISON OF THE YEARLY NUMBER OF VISITORS.

Years	No. of Visitors	Years.	No. of Visitors	Years	No. of Visitors
1854	104,823*	1859	475,365	1864	653,069
1855	78,427*	1860	610,696	1865	692,954†
1856	111,768*	1861	604,550	1866	756,075
1857	268,291‡	1862	1,241,369§		
1858	456,288‡	1863	726,915||		

* To the Museum of Ornamental Art, only, at Marlborough House.

† Collections removed to South Kensington.

‡ First Calendar Year at South Kensington.

§ Year of Exhibition of 1862.

|| Exhibition of Wedding Presents of Princess of Wales.

¶ Exhibition of Miniature Portraits.

SCIENCE AND ART DEPARTMENT OF THE COMMITTEE OF COUNCIL ON
EDUCATION, SOUTH KENSINGTON MUSEUM.

REPRODUCTIONS IN ELECTRO-COPPER, CASTS IN FICTILE IVORY AND IN PLASTER, COLOURED
PHOTOGRAPHS, CHROMOLITHOGRAPHS, DRAWINGS, &c.

*Reproductions en Cuivre Galvanisé, Ivoire Céramique, et en Plâtre, Photographies Coloriées, Chromo-
lithographies, Dessins, etc.*

The greater proportion of these reproductions and copies has been made under the direction of the Science and Art Department, the object being to promote the formation of local museums in connection with schools of art in Great Britain and Ireland, and also to supplement the collection of original objects in the South Kensington Museum, and thus to render this collection more complete as an illustration of the History of the Art of all Nations.

They are taken from original objects in various continental museums, public buildings, cathedrals, and private collections. The Science and Art Department has to acknowledge the great liberality with which permission to make these copies has been accorded. The collection commenced at the Paris Exhibition of 1855, when casts were taken of objects in the Musée d'Artillerie and the Hôtel de Cluny, Paris, by permission of his Imperial Majesty the Emperor of the French. The reproductions in fictile ivory of ancient ivory carvings are selected from the series of casts issued by the Arundel Society.

Examples of these reproductions, together with selections of suitable original objects in metal, pottery, glass, enamels, furniture, textile fabrics, &c., from the collections in the South Kensington Museum, have been sent on loan to exhibitions in connection with and in aid of the various schools of art in the United Kingdom since the commencement of the year 1855. The annexed table, which has been compiled from returns, as far as they have been supplied, by the local managers of these exhibitions, will illustrate the result.

La plupart de ces reproductions et copies ont été exécutées sous la direction du Département de Science et d'Art, dans le but d'encourager la formation de musées locaux en rapport avec les Écoles d'Art de la Grande Bretagne et de l'Irlande, et aussi de suppléer les objets originaux manquant à la Collection du Musée de Kensington, et la rendre ainsi plus complète comme illustration de l'Histoire de l'Art chez tous les peuples.

Toutes sont exécutées d'après des objets originaux se trouvant dans divers musées du continent, édifices publics, cathédrales et collections particulières. Le Département de Science et d'Art se plaît à reconnaître la grande libéralité avec laquelle permission a été accordée de faire ces copies. La collection a été commencée à l'Exposition de Paris de 1855, époque à laquelle furent pris, avec la permission de Sa Majesté Impériale l'Empereur des Français, des moules d'objets se trouvant au Musée d'Artillerie et à l'Hôtel de Cluny, à Paris. Les reproductions en ivoire céramique d'anciens ivoires sculptés ont été choisies dans une série de moules publiés par la Société Arundel.

Des exemplaires de ces reproductions, ainsi qu'un choix convenable d'objets originaux en métal, poteries, verre, émaux, meubles, tissus, etc., tirés des Collections du Musée de Kensington, ont été prêtés à diverses expositions qui ont eu lieu en connection avec les différentes Écoles d'Art du Royaume-Uni, et pour leur venir en aide, depuis le commencement de l'année 1855. Le tableau qui suit, compilé d'après les chiffres extraits des rapports qui ont été jusqu'à présent par les directeurs de ces expositions, en montrera les résultats.

RETURN of the Visitors' Receipts, &c., at various Exhibitions to which objects of Art were contributed from the Art Museum, from 1855 to 1866, both years inclusive.

Montants des Recettes provenant des Visiteurs, etc., des diverses Expositions auxquelles furent prêtés des objets d'Art par le Musée d'Art, de 1855 à 1866, ces deux années inclusivement.

Towns Villes	Year Année	Date Date	No. of days open Nombre de jours d'ouver- ture	Visitors Visiteurs	Receipts Recettes
					£ s. d.
Birmingham . .	1855	February, March, and April	39	12,711	96 6 11
Nottingham . . .	"	April, May, and June . .	37	5,572	21 10 10
Macclesfield . .	"	June, July, and August .	45	12,941	108 12 8
Norwich	"	September, October, and November	41	2,657	20 15 5
Leeds (1st visit)	1855-56	November, December, and January	40	21,508	119 12 9
Sheffield	1856	January, February, and March	42	4,935	52 2 3
York	"	March and April	41	4,094	58 7 1
Newcastle-on-Tyne	"	May and June	24	1,941	18 1 2
Carnarvon . . .	"	July	22	1,310	6 7 7
Hanley (Potteries)	"	August, September, and October	42	20,572	208 16 5
Stourbridge . .	1856-57	December and January .	32	667	8 15 5
Worcester . . .	1857	February and March . .	29	2,869	21 13 10
Liverpool (1st visit)	"	March, April, and May .	36	16,965	169 2 5
Glasgow	"	May, June, and July . .	55	5,830	60 2 10
Paisley	"	August, September, and October	31	3,340	14 3 4
Dundee	"	November and December .	21	6,343	66 6 8
Aberdeen	1858	January	22	15,451	67 1 0
Belfast	"	February and March . .	28	3,322	36 2 10
Dublin (1st visit)	"	April, May, and June . .	65	55,322	1,095 4 2
Limerick	"	July and August	38	1,0527	171 0 9
Clonmel	"	September and October .	46	13,998	178 18 3
Waterford . . .	1858-59	November, December, and January	39	15,685	188 10 11
Devonport . . .	1859	March and April	30	9,165	176 18 7
Exeter (1st visit)	"	April, May, and June . .	34	12,485	300 7 1
Barnstaple . . .	"	May and June	5	32,399	2,437 17 6
Taunton	"	August and September .	23	14,368	308 9 2
Dorchester . . .	1860	June	5	37,158	2,069 7 0
Dudley	"	July and August	31	5,351	104 4 7
Hartshill (Stoke)	"	August and September .	29	2,751	28 7 11
Bridgnorth . . .	"	October	14	6,878	139 10 9
Salford	1860-61	December, January, February, and March	94	71,050	Free
Newark	1861	April	21	6,586	135 3 0
Banbury	"	May	18	12,140	177 13 9
Dublin (2nd visit)	"	June, July, August, and September	90	119,158	5,897 5 10
Liverpool (S. D. 2nd visit)	"	September and October .	24	12,347	142 15 9
Edinburgh . . .	1861-62	November, December, and January	51	23,301	985 1 9

Towns <i>Villes</i>	Year <i>Année</i>	Date <i>Date</i>	No. of days open <i>Nombre de jours d'ouver- ture</i>	Visitors <i>Visiteurs</i>	Receipts <i>Recettes</i>
					£ s. d.
Hull	1862	February and March . .	42	30,975	389 9 4
Leeds (2nd visit)	1862-63	December and January . .	39	40,003	540 17 11
Darlington . . .	1863	March	26	8,780	96 11 7
Manchester . . .	"	April and May	39	7,401	39 14 3
Exeter (2nd visit)	"	June	5	40,000	2,317 1 6
Bristol	1864	June	5	90,055	7,184 12 6
Islington	"	October and November . .	19	208,168	2,625 0 0
Hereford	1865	June	5	54,836	3,648 5 3
Nottingham . . .	"	June, July, August, Septem- ber, and October	102	33,919	759 2 3
Alton Towers . .	"	July, August, September, and October	81	53,979	2,510 12 6
Islington	"	August, September, and Oc- tober	56	104,565	1,657 7 7
Darlington . . .	"	October	3	482	5 2 0
Great Yarmouth	1865-66	December and January . .	32	5,609	97 9 1
Guildhall (Lon- don)	1866	March and April	37	The Committee made no returns	
Limerick	"	April, May, and June . .	65	5,407	202 12 9
Salisbury	"	June	5	27,344	1,775 16 0
Southampton . .	"	July, August, September, and October	83	The Committee made no returns	
Dudley	"	July, August, September, and October	80	The Committee made no returns	
Stoke - upon - Trent	"	July and August	36	The Committee made no returns	
York	"	July, August, September, October, and November	88	377,824	13,570 0 0
Islington	"	September, October, and No- vember	61	506,018	No return of re- ceipts
Shrewsbury . . .	"	September and October . .	18	12,302	236 9 3
Bolton	"	September	4	2,950	Free
Birkenhead . . .	"	November and December . .	18	22,872	Free
Total			2,233	2,240,186	53,347 1 11

REPRODUCTIONS IN ELECTRO-COPPER.

. With one exception (the German cup, No. 65-64), all these objects have been reproduced for the South Kensington Museum either by Messrs. Elkington & Co., or by Messrs. Franchi and Son; by whom examples of many of the electrotypes are supplied to the public at fixed prices. A fuller descriptive list may be obtained at the South Kensington Museum, with the electrotypist's name and the prices of those objects of which examples are permitted to be sold to the public.

. *Tous ces objets, à l'exception d'un seul (la coupe allemande, No. 65-64), ont été reproduits soit par MM. Elkington et Cie., soit par MM. Franchi et Fils, qui peuvent fournir au public, à des prix fixes, des exemplaires de beaucoup des électrotypes dont suit le Catalogue. On peut s'en procurer au Musée de Kensington une liste qui en contient une description plus détaillée, ainsi que le nom de l'électrotypiste et le prix des objets dont il est permis de vendre des exemplaires au public.*

ON THE SCREEN OF TROPHY.

ELECTROTYPES OF OBJECTS OF ITALIAN ART.

GATE in the south transept of the Cathedral of Pisa. Known as the Porta di San Ranieri. By Bonanno, a Pisan sculptor. Date 1180. H. 15 ft. 4 in. W. 9 ft. 6 in. 65-58

STATUETTE of Christ undergoing baptism; original in the Cathedral of Pisa. By Giovanni di Bologna. Italian, about 1600. H. 3 ft. 3½ in. W. 11½ in. 66-20

STATUETTE of St John the Baptist; original in the Cathedral of Pisa. By Giovanni di Bologna. Italian, about 1600. H. 3 ft. 5½ in. W. 11½ in. 66-21

SHIELD, head of a Chimæra, surrounded by medallions and terminal figures. L. 22 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-12

SHIELD, head of a goat surrounded by four medallions containing classical subjects. Diam. 23½ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-13

SHIELD, a classic combat, border of medallion figures and armour. Diam. 22 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-14

SHIELD, a warrior kneeling at the feet of a woman. Diam. 22 in. Italian, middle of 16th century. Musée d'Artillerie, Paris. 56-15

SHIELD, oval: combat of marine deities, and border of foliage, etc. L. 27 in. W. 22 in. Italian, late 16th century. Musée d'Artillerie, Paris. 56-16

SHIELD, oval: a classic combat and border of marine monsters and deities. L. 27 in. W. 21½ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-17

ÉLECTROTYPES D'OBJETS D'ART ITALIEN.

PORTE dans le transept méridional de la Cathédrale de Pise. Connue sous le nom de Porte de San Ranieri. Par Bonanno, sculpteur pisan. Date 1180. H. 4,67 m. L. 2,89 m. 65-58

STATUETTE du Christ recevant le baptême; l'original est dans la Cathédrale de Pise. Par Jean de Bologne. Italienne, date environ 1600. H. 1,89 m. L. 29,21 c. 66-20

STATUETTE de Saint Jean-Baptiste; l'original est dans la Cathédrale de Pise. Par Jean de Bologne. Italienne, date environ 1600. H. 1,05 m. L. 29,21 c. 66-21

BOUCLIER, tête de Chimère, entourée de médaillons et figures le terminant. L. 55,88 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-12

BOUCLIER, tête de chèvre entourée de quatre médaillons renfermant des sujets classiques. Diam. 59,69 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-13

BOUCLIER, combat classique, bordure de figures et armure en médaillons. Diam. 55,88 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-14

BOUCLIER, un guerrier agenouillé aux pieds d'une femme. Diam. 55,88 c. Italien, milieu du 16ème siècle. Musée d'Artillerie, Paris. 56-15

BOUCLIER, ovale: combat de divinités marines et bordure de feuillage, etc. Long. 68,58 c. Larg. 55,88 c. Italien, fin du 16ème siècle. Musée d'Artillerie, Paris. 56-16

BOUCLIER, ovale: combat classique et bordure de monstres et dieux marins. Long. 68,58 c. Larg. 54,61 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-17

- SHIELD**, subject the Laocoon, and border of Tritons. Diam. 23 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-18
- SHIELD**, subject the head of Pompey brought to Cæsar, border of strapwork, figures and arms. Diam. 22 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-19
- SHIELD**, Medusa's head in centre, surrounded by rays, arabesques of combats, and hunting scenes. Diam. 22 in. Italian, early 16th century. Musée d'Artillerie, Paris. 56-20
- SHIELD**, spiked, chased with six arabesques, radiating bands, and border. Diam. 22 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-21
- SHIELD**, spiked, chased with damascened work. Diam. 23 in. Italian, early 16th century. Musée d'Artillerie, Paris. 56-22
- SHIELD**, central escutcheon charged with two coats of arms, border of arabesques. Diam. 24 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-23
- SUIT OF ARMOUR**, embossed and chased with figures and arabesques. North Italian, 16th century. Musée d'Artillerie, Paris. 56-24
- BACK PIECE**, chased with gold arabesques, a cherub under the collar. H. $17\frac{1}{2}$ in. W. $12\frac{1}{2}$ in. Milanese, 16th century. Musée d'Artillerie, Paris. 56-25
- BREAST-PLATE**, chased with arabesques and cartouches, surmounted by a winged genius. H. $15\frac{1}{2}$ in. W. $11\frac{1}{2}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-27
- BREAST-PLATE**, chased with armour. H. $14\frac{1}{4}$ in. W. $12\frac{1}{2}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-28
- BREAST-PLATE**, chased with Moresco interlaced pattern. H. $14\frac{1}{2}$ in. W. $10\frac{1}{4}$ in. Milanese, 16th century. Musée d'Artillerie, Paris. 56-29
- FRONT OF A GORGET**, damascened with strapwork; a figure of Minerva in front. H. 5 in. W. 11 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-33
- HEAD-PIECE**, with two representations of Neptune in his car. H. $10\frac{3}{4}$ in. W. 14 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-34
- HEAD-PIECE**, combats of marine deities. H. $11\frac{1}{4}$ in. W. $10\frac{1}{2}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-35
- HEAD-PIECE**, subject Perseus and Andromeda. H. $9\frac{1}{2}$ in. W. 13 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-37
- BOUCLIER**, sujet: le Laocoon, et bordure de Tritons. Diam. 58,42 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-18
- BOUCLIER**, sujet: la tête de Pompée présentée à Cæsar, bordure ciselée à bandes plates avec figures et armes. Diam. 55,88 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-19
- BOUCLIER**, tête de Méduse au centre entourée de rayons, d'arabesques et de scènes de chasse. Diam. 55,88 c. Italien, premières années du 16ème siècle. Musée d'Artillerie, Paris. 56-20
- BOUCLIER**, à pointe, six arabesques, bandes rayonnantes et bordure ciselées. Diam. 55,88 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-21
- BOUCLIER**, à pointe, ciselé et damasquiné. Diam. 58,42 c. Italien, premières années du 16ème siècle. Musée d'Artillerie, Paris. 56-22
- BOUCLIER**, écusson central chargé de deux cottes d'armes, bordure d'arabesques. Diam. 60,96 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-23
- ARMURE**, en bosse avec figures et arabesques ciselées. Italie du Nord, 16ème siècle. Musée d'Artillerie, Paris. 56-24
- DOSSIÈRE DE CUIRASSE**, avec arabesques en or ciselées, un chérubin sous le col. Haut. 44,45 c. Larg. 31,75 c. Milanaise, 16ème siècle. Musée d'Artillerie, Paris. 56-25
- CUIRASSE**, avec arabesques et cartouches ciselés, surmontés d'un génie ailé. Haut. 39,37 c. Larg. 29,21 c. Italienne, 16ème siècle. Musée d'Artillerie, Paris. 56-27
- CUIRASSE**, avec armure ciselée. Haut. 36,83 c. Larg. 31,75 c. Italienne, 16ème siècle. Musée d'Artillerie, Paris. 56-28
- CUIRASSE**, dessin moresque entrelacé, ciselé. Haut. 36,83 c. Larg. 26,67 c. Milanaise, 16ème siècle. Musée d'Artillerie, Paris. 56-29
- DEVANT D'UN GORGERIN**, damasquiné en bandes plates; une figure de Minerve sur la partie antérieure. H. 12,70 c. L. 27,94 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-33
- ARMET**, avec deux représentations de Neptune sur son char. H. 27,31 c. L. 35,56 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-34
- ARMET**, combat de divinités marines. H. 29,85 c. L. 26,67 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-35
- ARMET**, sujet: Persée et Andromède. H. 24,13 c. L. 33,62 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-37

- HEAD-PIECE**, subject David and Goliath. H. $10\frac{3}{4}$ in. W. 14 in. Italian, 16th century. Musée d'Artillerie, Paris. 56-39
- HEAD-PIECE**, marine Genii holding the beard of a warrior, whose figure forms part of the crest. H. 10 in. W. $14\frac{3}{4}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-40
- HEAD-PIECE**, in the form of a Lion's head. From the suit called 'Armure aux Lions,' said to have belonged to François I. H. $19\frac{1}{2}$ in. W. $11\frac{1}{2}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-45
- SHOULDER-PIECES** (two), from the suit known as the 'Armure aux Lions,' said to have belonged to François I. Diam $10\frac{1}{2}$ in. each. Italian, 16th century. Musée d'Artillerie, Paris. 56-46
- ARM-PIECES** (two), from the suit known as the 'Armure aux Lions,' said to have belonged to François I. Diam. 6½ in. each. Italian, 16th century. Musée d'Artillerie, Paris. 56-47
- GAUNTLETS** (two), from the suit known as the 'Armure aux Lions,' said to have belonged to François I. Diam. 5½ in. L. $8\frac{3}{4}$ in. each. Italian, 16th century. Musée d'Artillerie, Paris. 56-48
- HEAD-PIECE**, with medallions containing the loves of Mars and Venus. H. 12 in. W. $13\frac{1}{2}$ in. Italian, 16th century. Musée d'Artillerie, Paris. 56-50
- FRONT OF A GORGET**; chased with a cartouche containing a bas-relief of a General at the head of his men. H. 10 in. W. 12 in. Italian, 16th century. Musée d'Artillerie, Paris. 57-4
- BACK OF A GORGET**, with classic combat in bas-relief. H. 7 in. W. 12 in. Italian, 16th century. Musée d'Artillerie, Paris. 57-5
- HEAD-PIECE**, with strapwork and classical subjects. H. $9\frac{1}{2}$ in. W. 13 in. Italian, 16th century. Nieuwerkerke Coll., Paris. 57-11
- HEAD-PIECE**, with arabesques, and war scenes. H. 12 in. W. $15\frac{1}{2}$ in. Italian, 16th century. Nieuwerkerke Coll., Paris. 57-12
- FRONT OF A CUIRASS**, with arabesques of grotesques. L. 23 in. W. $11\frac{1}{2}$ in. Italian, 16th century. Nieuwerkerke Coll., Paris. 57-13
- BACK OF A CUIRASS**, with arabesques of grotesques. L. $16\frac{1}{2}$ in. W. $14\frac{1}{2}$ in. Italian, 16th century. Nieuwerkerke Coll., Paris. 57-14
- FIRE DOGS, PAIR OF**, H. 48 in. Italian, 16th century. Originals, in bronze, in the South Kensington Museum. 57-28
- ARMET**, sujet: David et Goliath. H. 27,31 c. L. 35,56 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-39
- ARMET**, Génie marin tenant la barbe d'un guerrier qui forme partie du cimier. H. 25,40 c. L. 37,47 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-40
- ARMET**, en forme de tête de lion. Fait partie de l'armure dite 'Armure aux Lions,' que l'on croit avoir appartenu à François I. H. 29,53 c. L. 29,21 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-45
- ÉPAULETTES** (deux), faisant partie de l'armure dite 'Armure aux Lions,' qu'on croit avoir appartenu à François I. Diam. 16,27 c. chaque. Italiennes, 16ème siècle. Musée d'Artillerie, Paris. 56-46
- BRASSARDS** (deux), faisant partie de l'armure dite 'Armure aux Lions,' qu'on croit avoir appartenu à François I. Diam. 16,51 c. chaque. 16ème siècle. Musée d'Artillerie, Paris. 56-47
- GANTELETS** (deux), faisant partie de l'armure dite 'Armure aux Lions,' qu'on croit avoir appartenu à François I. Diam. 13,97 c. Long. 21,59 c. Italiens, 16ème siècle. Musée d'Artillerie, Paris. 56-48
- ARMET**, avec médaillons renfermant les Amours de Mars et Vénus. H. 30,48 c. L. 34,29 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 56-50
- DEVANT D'UN GORGERIN**; avec cartouche ciselé renfermant un bas-relief d'un Général à la tête de ses hommes. L. 30,48 c. H. 25,40 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 57-4
- DERRIÈRE D'UN GORGERIN**, avec un combat classique en bas-relief. L. 30,48 c. H. 17,78 c. Italien, 16ème siècle. Musée d'Artillerie, Paris. 57-5
- ARMET**, avec dessin à bandes plates, et sujets classiques. H. 24,13 c. L. 33,02 c. Italien, 16ème siècle. Collection Nieuwerkerke, Paris. 57-11
- ARMET**, arabesques et scènes guerrières. H. 30,48 c. L. 39,37 c. Italien, 16ème siècle. Collection Nieuwerkerke, Paris. 57-12
- DEVANT D'UNE CUIRASSE**, avec arabesques de grotesques. Long. 58,42 c. Larg. 29,21 c. Italien, 16ème siècle. Collection Nieuwerkerke, Paris. 57-13
- DOSSIÈRE D'UNE CUIRASSE**, avec arabesques de grotesques. Long. 41,91 c. Larg. 36,83 c. Italienne, 16ème siècle. Collection Nieuwerkerke, Paris. 57-14
- CHENETS** (Paire de). H. 1,22 m. Italiens, 16ème siècle. Les originaux, en bronze, sont au Musée de Kensington.

ELECTROTYPES OF OBJECTS OF FRENCH ART.

HEAD-PIECE, with figure subjects. H. 11 in. W. 14 in. French, 16th century. Musée d'Artillerie, Paris. 56-36

HELMET, combat of classic warriors, grotesque sphinx for a crest. H. $11\frac{1}{2}$ in. W. $13\frac{3}{4}$ in. French, 16th century. Musée d'Artillerie, Paris. 56-43

HEAD-PIECE, a warrior kneeling to a woman and other figures. H. 10 in. W. 13 in. French, 16th century. Musée d'Artillerie, Paris. 56-44

CASQUE, a griffin, the head forming the vizor. H. 12 in. L. 13 in. French, 17th century. Musée d'Artillerie, Paris. 56-51

SHOULDER TILTING SHIELD, the panels chased with figure subjects. H. 18 in. W. 15 in. French, 15th century. Musée d'Artillerie, Paris. 57-1

SHOULDER TILTING SHIELD, chased with animals. H. 17 in. W. 14 in. French, 15th century. Musée d'Artillerie, Paris. 57-2

SHIELD, cartouches and strapwork. Subjects of David, Judith, etc., occupy the field. Diam. 24 in. French, late 16th century. Nieuwerkerke Coll., Paris. 57-9

ELECTROTYPES OF OBJECTS OF GERMAN ART.

HEAD-PIECE, with large floriations. H. 8 in. W. 12 in. German, 16th century. Royal Armoury, Windsor Castle. 54-11

SHIELD, in the centre Medusa's head, the triumph of Rome in figure bas-reliefs round the rim, with maker's name (Sigman), and other inscriptions. Diam. 24 in. Augsburg, 16th century. Original in wrought-iron in the South Kensington Museum. 55-1

HEAD-PIECE, chased with arabesques, etc. H. $10\frac{3}{4}$ in. W. 11 in. German, 16th century. Musée d'Artillerie, Paris. 56-41

HEAD-PIECE, form of a Dolphin's head. H. $11\frac{1}{2}$ in. W. $11\frac{1}{2}$ in. German, late 16th century. Musée d'Artillerie, Paris. 56-52

KNOCKER, circular medallion form, in centre a lion's head. German, 12th century. Original, of bronze, attached to a door of the Cathedral at Lausanne. Diam. 25 in. 66-48

KNOCKER, circular medallion form, in the centre a lion's head. German 12th century, Original, of bronze, attached to a door of the Cathedral, at Lausanne. Diam. 25 in. 66-49

ELECTROTYPE OF OBJECT OF FLEMISH ART.

BREAST-PLATE (unfinished), with flutings and coarse scroll work. H. 14 in. W. 13 in. Flemish, 17th century. Musée d'Artillerie, Paris. 56-30

ÉLECTROTYPES D'OBJETS D'ART FRANÇAIS.

ARMET, avec sujets à figures. H. 27,94 c. L. 35,56 c. Français, 16ème siècle. Musée d'Artillerie, Paris. 56-36

CASQUE, combat de guerriers classiques, un sphynx grotesque pour cimier. H. 29,21 c. L. 34,93 c. Français, 16ème siècle. Musée d'Artillerie, Paris. 56-43

ARMET, un guerrier s'agenouillant devant une femme, et autres figures. H. 25,40 c. L. 33,02 c. Français, 16ème siècle. Musée d'Artillerie, Paris. 56-44

CASQUE, un griffon dont la tête forme la visière. H. 30,48 c. L. 33,02 c. Français, 17ème siècle. Musée d'Artillerie, Paris. 56-51

MANTEAU D'ARMES, sujets à figures ciselées sur les panneaux. H. 45,72 c. L. 38,10 c. Français, 15ème siècle. Musée d'Artillerie, Paris. 57-1

MANTEAU D'ARMES, avec animaux ciselés, H. 43,18 c. L. 35,56. Français, 15ème siècle. Musée d'Artillerie, Paris. 57-2

BOUCLIER, avec cartouches et dessin à bandes plates. Des sujets de David, Judith, etc., en occupent le champ. Diam. 60,96 c. Français, dernières années du 16ème siècle. Collection Nieuwerkerke, Paris. 57-9

ÉLECTROTYPES D'OBJETS D'ART ALLEMAND.

ARMET, à grandes fleurs. H. 20,32 c. L. 30,48 c. Allemand, 16ème siècle. Salle des Armures, Château de Windsor. 54-11

BOUCLIER, au centre une tête de Méduse, autour du bord le triomphe de Rome en bas-reliefs à figures, avec le nom de l'artiste (Sigman) et autres inscriptions. Diam. 60,96 c. Augsburg, 16ème siècle. L'original, en fer forgé, est au Musée de Kensington. 55-1

ARMET, avec arabesques ciselées, etc. H. 27,31 c. L. 27,94 c. Allemand, 16ème siècle. Musée d'Artillerie, Paris. 56-41

ARMET, en forme de tête de Dauphin. H. 29,21 c. L. 29,21 c. Allemand, dernières années du 16ème siècle. Musée d'Artillerie, Paris. 56-52

MARTEAU, en forme de médaillon circulaire, au centre une tête de lion. Allemand, 12ème siècle. L'original, de bronze, est fixé à une porte de la Cathédrale de Lausanne. Diam. 63,50 c. 66-48

MARTEAU, en forme de médaillon circulaire, au centre une tête de lion. Allemand, 12ème siècle. L'original, de bronze, est fixé à une porte de la Cathédrale de Lausanne. Diam. 63,50 c. 66-49

ÉLECTROTYPE D'OBJET D'ART FLAMAND.

CUIRASSE (non finie), avec cannelures et enroulements grossiers. H. 35,56 c. L. 33,02 c. Flamand, 17ème siècle. Musée d'Artillerie, Paris. 56-30

ELECTROTYPE OF OBJECT OF SPANISH ART.

HEAD-PIECE, with the legend of Saint James of Compostella, fighting against Saracens. H. 9 $\frac{3}{4}$ in. W 14 $\frac{3}{4}$ in. Spanish, 16th century. Musée d'Artillerie, Paris. 56-38

FLAGSTAFF SOCKET.

BRONZE SOCKET for a Flag Staff in the Piazzas of St. Mark, Venice, by Alessandro Leopardi, date 1505. H. 9 ft. 3 in. Diam. 4 ft. 63-2

CASE A.

ELECTROTYPES OF OBJECTS OF ENGLISH ART.

EWER, with grotesque handle. H. 14 $\frac{3}{4}$ in. English plate mark on original 1597. Corporation of Norwich. 61-1

SALVER, classical and sacred subjects. Diam. 17 $\frac{3}{4}$ in. English Plate mark on original 1597. Corporation of Norwich. 61-2

CUP AND COVER. H. 18 $\frac{1}{2}$ in. Diam. 6 $\frac{1}{4}$ in. English, 16th century. South Kensington Museum. 63-23

SALVER, raised centre, and on the borders cartouches of dolphins and fruit. W. 19 $\frac{1}{4}$ in. English, end of 16th century. In the possession of Lord Delamere. 63-24

TAZZA, figures of Jupiter, Diana, and two other Deities. In the possession of Sir Walter C. Trevelyan, Bart., and bears the English Hall Mark for the year 1683. H. 2 $\frac{3}{4}$ in. Diam. 11 $\frac{1}{2}$ in. 65-76

SPOON, used in the ceremony of the coronation. The original, of silver-gilt, forms part of the Regalia in the Tower of London. English, 13th century. L. 10 $\frac{1}{2}$ in. W. of bowl 2 in. 65-77

SACRAMENTAL FLAGON, with the cipher of King William III. and Queen Mary. The original, of silver gilt, forms part of the Regalia in the Tower of London. English, about 1690. H. 17 $\frac{1}{2}$ in. Diam. 9 $\frac{3}{4}$ in. 65-78

SALVER OR ALTAR DISH, gilt, in the centre the Supper at Emmaus, below which is the cypher of King William III. and Queen Mary. The original, of silver gilt, forms part of the Regalia in the Tower of London. English, about 1690. Diam. 2 ft. 3 $\frac{1}{2}$ in. 65-79

CHRISTENING FONT, with cover, surmounted with a group representing Philip baptizing the Eunuch. Engraved with the crowned cypher of King Charles II. English, about 1660. The original, of silver gilt, forms part of the Regalia in the Tower of London. Height 3 ft. 1 $\frac{1}{4}$ in. Diameter 1 ft. 5 $\frac{1}{4}$ in. 65-80

ÉLECTROTYPE D'OBJET D'ART ESPAGNOL.

ARMET, avec la légende de Saint Jacques de Compostelle combattant les Sarrasins. H. 24,13 c. L. 37,41 c. Espagnol, 16ème siècle. Musée d'Artillerie, Paris. 56-38

SOCLE DE MÂT DE PAVILLON.

SOCLE DE BRONZE, pour un Mât de Pavillon dans la Place Saint-Marc, Venise, par Alessandro Leopardi, date 1505. H. 2,82 m. Diam. 1,22 m. 63-2

VITRINE A.

ÉLECTROTYPES D'OBJETS D'ART ANGLAIS.

AGUIÈRE, avec un grotesque pour anse. H. 37,47 c. Marque d'orfèvrerie anglaise sur l'original, 1597. Appartient à la Corporation de Norwich. 61-1

PLATEAU, sujets classiques et sacrés. Diam. 42,12 c. Marque d'orfèvrerie anglaise sur l'original, 1597. Appartient à la Corporation de Norwich. 61-2

TASSE AVEC COUVERCLE. H. 46,99 c. Diam. 15,88 c. Anglaise, 16ème siècle. Musée de Kensington. 63-23

PLATEAU, centre relevé, et sur les bords cartouches de dauphins et fruits. Larg. 48,90 c. Anglais, fin du 16ème siècle. En la possession de Lord Delamere. 63-24

COUPE, figures de Jupiter, Diane et deux autres divinités. En la possession de Sir Walter C. Trevelyan, Bart., et porte la marque de la Salle des Orfèvres anglais pour l'année 1683. H. 6,99 c. Diam. 29,21 c. 65-76

CUILLÈRE, servant dans la cérémonie du couronnement. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. Anglaise, 13ème siècle. Long. 26,27 c. Larg. de cuilleron, 5,08 c. 65-77

BUIRE DE COMMUNION, avec le chiffre du roi Guillaume III et de la reine Marie. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. Anglaise, date environ 1690. H. 43,42 c. Diam. 24,77 c. 65-78

PLATEAU OU PLAT D'AUTEL, doré au centre, le Souper d'Emmaüs, au bas duquel est le chiffre du roi Guillaume III et de la reine Marie. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. Anglais, date environ 1690. Diam. 69,83 c. 65-79

FONTS BAPTISMAUX, avec couvercle, surmontés d'un groupe représentant Philippe baptisant l'Eunuque. Le chiffre couronné du roi Charles II y est gravé. Anglais, date environ 1660. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. H. 94,58 c. Diam. 43,50 c. 65-80

SALVER OF CHRISTENING FONT, engraved with the Royal arms. English, date about 1660. The original, of silver gilt, forms part of the Regalia in the Tower of London. Diam. 1 ft. 11 in. 65-81

SALTCELLAR, pedestal form. English, 16th century. The original, of silver gilt, forms part of the Regalia in the Tower of London. H. 13½ in. Diam. 6 in. 65-82

WINE FOUNTAIN, gilt. English, 17th century. The original, of silver gilt, forms part of the Regalia in the Tower of London. H. 2 ft. 6 in. Diam. 2 ft. 4 in. 65-83

SALTCELLAR, pedestal form. English, 17th century. The original, of silver gilt, forms part of the Regalia in the Tower of London. H. 1 ft. 2½ in. W. 7¼ in. 66-2

AMPULLA, gilt; in form of an eagle with wings expanded. English, 17th century, probably representing an earlier piece. The original of gold, forms part of the Regalia in the Tower of London, and is used for the oil of consecration at coronations. H. 7¼ in. W. 6½ in. by 6 in. 66-3

SCEPTRE. The original of ivory, mounted in gold and enamelled, is known as the sceptre of Anne Boleyn, but was probably made for the Queen of James I. about 1603. Part of the Regalia in the Tower of London. L. 3 ft. 3 in. 66-4

CASE B.

ELECTROTYPES OF OBJECTS OF ITALIAN ART.

TANKARD, fictile ivory with parcel-gilt base and mountings. H. 11½ in. Italian, 16th century. Original the property of Captain Bedford. 54-2

TAZZA, subject the death of Meleager, in high relief. W. 8 in. Italian, 16th century. South Kensington Museum. 54-3

LAMPSTAND, supported by three grotesque griffins. H. 2 in. Venetian, about 1520. South Kensington Museum. 54-4

SALTCELLAR, trefoil and triangle star-shape, on three feet. Diam. 4 in. Italian, 16th century. South Kensington Museum. 54-5

TAZZA, subject the forge of Vulcan, Venus and Cupid standing by. Statuette of Bacchus for a stem. H. 6½ in. Diam. 9 in. Italian, 16th century. Nieuwerkerke Coll., Paris. 56-6

PLATEAU DE FONTS DE BAPTÊME; les armes royales y sont gravées. Anglais, date environ 1660. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. Diam. 58,41 c. 65-81

SALIÈRE, en forme de piédestal. Anglaise, 16ème siècle. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. H. 34,29 c. Diam. 15,24 c. 65-82

FONTAINE À VIN, dorée. Anglaise, 17ème siècle. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. H. 76,18 c. Diam. 71,10 c. 65-83

SALIÈRE, en forme de piédestal. Anglaise, 17ème siècle. L'original, d'argent doré, fait partie des Joyaux de la Couronne à la Tour de Londres. H. 34,29 c. Diam. 15,24 c. 66-2

AMPOULE, dorée, en forme d'aigle aux ailes déployées. Anglaise, 17ème siècle, reproduction, probablement, d'un objet plus ancien. L'original, en or, fait partie des Joyaux de la Couronne à la Tour de Londres, et sert à contenir l'huile de la consécration aux couronnements. H. 19,69 c. L. 15,88 sur 15,24 c. 66-3

SCEPTRE. L'original, en ivoire, monté en or et émaillé, est connu sous le nom de 'Sceptre d'Anne de Boleyn,' mais fut probablement fait pour la reine, femme de Jacques I, en 1603 environ. Fait partie des Joyaux de la Couronne à la Tour de Londres. Long. 99,03 c. 66-4

VITRINE B.

ÉLECTROTYPES D'OBJETS D'ART ITALIEN.

HANAP, en ivoire céramique, monture et base partiellement dorées. H. 29,21 c. Italien, 16ème siècle. L'original est la propriété du Capitaine Bedford. 54-2

COUPE, sujet: la mort de Méléagre, en haut-relief. Larg. 20,32 c. . Italienne, 16ème siècle. L'original est au Musée de Kensington. 54-3

PIED DE LAMPE, soutenu par trois griffons grotesques. H. 5,08 c. Vénitien, date environ 1520. L'original est au Musée de Kensington. 54-4

SALIÈRE, en forme de trèfle et étoile triangulaire, sur trois pieds. Diam. 10,16 c. Italienne, 16ème siècle. L'original est au Musée de Kensington. 54-5

COUPE, sujet: les forges de Vulcain, Vénus et Cupidon regardant. Statuette de Bacchus pour fût. H. 16,51 c. Diam. 22,86 c. Italienne, 16ème siècle. Coll. Nieuwerkerke, Paris. 56-6

- TAZZA**, attributed to Benvenuto Cellini. Diam. $6\frac{1}{2}$ in. Italian, 16th century. Musée du Louvre, Paris. 56-10
- BOWL OF TAZZA**, subject the triumph of Neptune. Diam. 7 in. Italian, 16th century. Musée du Louvre, Paris. 56-11
- SALVER**; in the centre a representation of the siege of Tunis under Charles V. Diam. 23 in. Italian, 16th century. Musée du Louvre, Paris. 57-15
- HUNTING HORN**. L. 15 in. Italian, 16th century. Original in the collection of A. Fountaine, Esq. 57-16
- STIRRUP**, pierced and chased. H. 9 in. W. $5\frac{1}{2}$ in. Spanish, or Italian, 16th century. Musée d'Artillerie, Paris. 57-6
- SALVER**, chased with arabesques and a central shield. Diam. 18 in. Venetian, 16th century. South Kensington Museum. 57-18
- SALVER**, with moresco chasing. In the centre a shield of two coats of arms. Diam. $19\frac{1}{2}$ in. Italian, 16th century. South Kensington Museum. 57-19
- SALVER**, chased with medallions of classical battle pieces, modern sieges on the rim. Diam. 20 in. Venetian, 16th century. South Kensington Museum. 57-23
- EWER**, chased with representations of a classical battle piece, three foiled lip. H. 11 in. Venetian, 16th century. South Kensington Museum. 57-24
- BASE OF A PEDESTAL**, embossed with a Bacchanalian dance. H. $2\frac{3}{4}$ in. Italian, about 1520. South Kensington Museum. 57-26
- KNOCKER**, ornamented with grotesques and boys. H. $14\frac{1}{2}$ in. Venetian, 16th century. South Kensington Museum. 57-29
- EWER**, with dragon handle, chased with medallions of classical histories. H. $11\frac{1}{2}$ in. Venetian, 16th century. South Kensington Museum. 57-30
- BELL**, chased with rings of ornament, and dated 1561. H. 5 in. Italian. South Kensington Museum. 57-31
- BELL**, embossed with legend and a shield. H. $13\frac{1}{2}$ in. Italian, 16th century. South Kensington Museum. 57-32
- INKSTAND**, surmounted by a statuette of Hannibal counting the rings. H. 10 in. Italian, 16th century. South Kensington Museum. 57-33
- CANDLESTICK**, the base supported by three boy Tritons. H. $6\frac{1}{2}$ in. Italian, 16th century. South Kensington Museum. 57-34
- CANDLESTICK**, a cupid bearing the socket, on a triangular pedestal. H. 10 in. Italian, 16th century. South Kensington Museum. 57-35
- COUPE**, attribuée à Benvenuto Cellini. Diam. 17,15 c. Italienne, 16ème siècle. L'original est au Musée du Louvre, Paris. 56-10
- BOL DE COUPE**, sujet: le triomphe de Neptune. Diam. 17,78 c. Italien, 16ème siècle. Musée du Louvre, Paris. 56-11
- PLATEAU**; au centre une représentation du siège de Tunis sous Charles-Quint. Diam. 58,42 c. Italien, 16ème siècle. L'original est au Musée du Louvre, Paris. 57-15
- CORNET DE CHASSE**. Long. 38,10 c. Italien, 16ème siècle. L'original fait partie de la collection de A. Fountaine, Esq. 57-16
- ÉTRIER**, à jour et ciselé. H. 22,86 c. L. 13,97 c. Espagnol, ou Italien, 16ème siècle. Musée d'Artillerie, Paris. 57-6
- PLATEAU**, avec arabesques ciselées et un écu au centre. Diam. 45,72 c. Vénitien, 16ème siècle. Au Musée de Kensington. 57-18.
- PLATEAU**, avec ciselures moresques. Au centre un écu de deux cottes d'armes. Diam. 49,53 c. Italien, 16ème siècle. Au Musée de Kensington. 57-19
- PLATEAU**, ciselure de médaillons renfermant des scènes de batailles classiques, des sièges modernes sur le bord. Diam. 50,80 c. Vénitien, 16ème siècle. Au Musée de Kensington. 57-23
- AIGUIÈRE**, ciselures représentant des scènes de batailles classiques, lèvre en treffe. H. 27,96 c. Vénitienne, 16ème siècle. Musée de Kensington. 57-24
- BASE D'UN PIÉDESTAL**, avec danse de Bacchantes en bosse. H. 6,99 c. Italien, date environ 1520. Musée de Kensington. 57-26
- MARTEAU**, ornementé de grotesques et figures d'enfants. H. 36,83 c. Vénitien, 16ème siècle. Musée de Kensington. 57-29
- AIGUIÈRE**, avec anse en forme de dragon, et ciselure de médaillons renfermant des sujets d'histoires classiques. H. 29,21 c. Vénitienne, 16ème siècle. Musée de Kensington. 57-30
- CLOCHE**, avec cercles d'ornements ciselés, datée 1561. H. 12,70 c. Italienne, 16ème siècle. Musée de Kensington. 57-31
- CLOCHE**, avec légende et un bouclier en bosse. H. 34,29 c. Italienne, 16ème siècle. Musée de Kensington. 57-32
- ÉCRITOIRE**, surmontée d'une statuette d'Annibal comptant les anneaux. H. 25,40 c. Italienne, 16ème siècle. Musée de Kensington. 57-33
- CHANDELIER**, la base est soutenue par trois jeunes Tritons. H. 16,51 c. Italien, 16ème siècle. Musée de Kensington. 57-34
- CHANDELIER**; un amour soutient la bobèche sur un piédestal triangulaire. H. 25,40 c. Italien, 16ème siècle. Musée de Kensington. 57-35

CANDLESTICK, embossed and engraved with strapwork grotesques, heads and foliage. H. $10\frac{1}{2}$ in. Italian, 16th century. South Kensington Museum. 57-36

NAUTILUS SHELL, in metal mountings, supported by a seated Naiad with Sirens at her feet. Diam. 13 in. Italian, 16th century. 58-1

TAZZA, subject of the Deluge occupying the centre medallion. H. 5 in. W. $7\frac{3}{8}$ in. Italian, late 16th century. South Kensington Museum. 62-2660

MIRROR CASE, known as the Martelli Bronze, by Donatello. W. $7\frac{1}{2}$ in. Italian, 15th cent. South Kensington Museum. 64-55

CANDLESTICK, in imitation of Persian or Moresque design. H. $7\frac{1}{2}$ in. Diam. at base 6 in. Venetian, 16th century. South Kensington Museum. 65-63

SALTCELLAR, triangular, on ball feet. H. $7\frac{7}{8}$ in. L. 5 in. Italian, 16th century. South Kensington Museum. 65-67

SALTCELLAR, triangular, chased with birds and fruit, on three ball feet. W. $3\frac{3}{4}$ in. Italian, 1600. South Kensington Museum. 65-68

SALTCELLAR, square. W. $3\frac{1}{4}$ in. Italian, 15th century. South Kensington Museum. 65-70

CASE C.

ELECTROTYPES OF OBJECTS OF FRENCH ART.

TANKARD, with strap work and grotesques, by François Briot. French, 17th century. H. 8 in. South Kensington Museum. 54-6

BEAKER, on three ball feet. H. $3\frac{1}{2}$ in. French (?), dated 1710. South Kensington Museum. 54-7

DISH, figure of a river god in the centre, and combat of Knights round it. Diam. 25 in. French, 16th century. Musée du Louvre, Paris. 55-2

PORTRAIT BUST, in relief. H. 16 in. By J. Goujon, 16th century. From original marble in the Musée du Louvre, Paris. 55-4

SALTCELLAR, circular. Diam. 3 in. French, about 1600. South Kensington Museum. 65-69

SALTCELLAR, circular, supported on Cherubs' heads. Diam. 3 in. French, 16th century. South Kensington Museum. 65-75

ELECTROTYPES OF OBJECTS OF GERMAN ART.

TANKARD, formerly in the possession of the Imhoff family. H. $7\frac{1}{2}$ in. Augsburg, date 1570. South Kensington Museum. 54-8

TANKARD. H. $6\frac{1}{2}$ in. Augsburg, 1700. South Kensington Museum. 54-9

CHANDELIER, relevé en bosse, avec ciselures à bandes plates de grotesques, têtes et feuillage. H. 26,67 c. Italien, 16ème siècle. Musée de Kensington. 57-36

COQUILLE DE NAUTILE, monture en métal, soutenue par une Naiade assise avec des Sirènes à ses pieds. Diam. 33,02 c. Italienne, 16ème siècle. 58-1

COUPE, sujet: le Déluge, occupant le médaillon central. L. 18,71 c. H. 12,70 c. Musée de Kensington. 62-2660

ÉTUI À MIROIR, connu sous le nom de Bronze Martelli, par Donatello. Larg. 19,05 c. Italien, 15ème siècle. Musée de Kensington. 64-55

CHANDELIER, imitation de dessin persan ou moresque. H. 19,05 c. Diam. à la base, 15,24 c. Vénitien, 16ème siècle. Musée de Kensington. 65-63

SALIÈRE, triangulaire, sur pieds à boule. H. 2,17 c. L. 12,70 c. Italienne, 6ème siècle. Musée de Kensington. 65-67

SALIÈRE, triangulaire, ciselures d'oiseaux et de fruits, sur trois pieds à boule. Larg. 8,89 c. Italien, 1600. Musée de Kensington. 65-68

SALIÈRE, carrée. Larg. 8,26 c. Italienne, 15ème siècle. Musée de Kensington. 65-70

VITRINE C.

ÉLECTROTYPES D'OBJETS D'ART FRANÇAIS.

HANAP, avec dessin à bandes plates et grotesques par François Briot. Français, 17ème siècle. H. 20,32 c. Musée de Kensington. 54-6

Gobelet, sur trois pieds à boule. H. 8,89 c. Français (?), date, 1710. Musée de Kensington. 54-7

PLAT, figure d'un Fleuve au centre, et combat de chevaliers autour. Diam. 63,50 c. Français, 16ème siècle. Musée du Louvre, Paris. 55-2

PORTRAIT EN BUSTE, en relief. H. 40,64 c. Par Jean Goujon, 16ème siècle. Reproduit du marbre original au Musée du Louvre, Paris. 55-4

SALIÈRE, circulaire. Diam. 7,62 c. Française, date environ 1600. Musée de Kensington. 65-69

SALIÈRE, circulaire, reposant sur des têtes de chérubins. Diam. 7,62 c. Française, 16ème siècle. Musée de Kensington. 65-75

ÉLECTROTYPES D'OBJETS D'ART ALLEMAND.

HANAP, jadis en la possession de la famille Imhoff. H. 19,05 c. Augsburg, date 1570. Musée de Kensington. 54-8

HANAP. H. 16,51 c. Augsburg, 1700. Musée de Kensington. 54-9

VASE, bearing inscription 'Jacob Marten. Hamburg, 4. 7ber 1708.' H. $9\frac{1}{2}$ in. South Kensington Museum. 54-10

HUNTING HORN, embossed with scroll foliage. L. 12 in. German, 16th century. Original of iron, in the South Kensington Museum. 57-27

TANKARD, fictile ivory mounted in silver parcel-gilt. H. 19 in. Augsburg, late 17th century. Original, signed 'Bernard Strauss, goldsmid, fec.,' in the South Kensington Museum. 59-1

CUP AND COVER, with three bands of enamel, panels on the bowl and cover contain bas-reliefs representing scriptural subjects. Augsburg, 16th century. The original, of silver-gilt, is in the Landhaus at Gratz in Styria. 65-54

TANKARD, with Mercury and other Mythological figures. H. 13 in. German, dated 1605. South Kensington Museum. 65-61

SALTCELLAR, triangular, supported by lions rampant. H. $1\frac{1}{4}$ in. L. 5 in. German, 16th century. South Kensington Museum. 65-66

ELECTROTYPES OF OBJECTS OF FLEMISH ART.

TANKARD, embossed diamond surface. Flemish, 17th century. H. $5\frac{3}{4}$ in. South Kensington Museum. 54-17

DISH, the centre sunk and containing nude figures of Adam and Eve; fruit and beasts of the chase on the border. W. 26 in. Dutch or Low Countries, 17th century. Hôtel de Cluny, Paris. 56-9

TANKARD, chased and engraved with scroll work. H. $7\frac{1}{2}$ in. Flemish or German, 17th century. South Kensington Museum. 65-64

TANKARD, with cover. The original forms part of the Regalia in the Tower of London. Flemish, 17th century. H. 10 in. W. at base 8 in. 66-1

ELECTROTYPES OF OBJECTS OF RUSSIAN ART.

TANKARD AND COVER, surmounted by a figure of a swan. Russian, 18th century. The original in the possession of G. Moffatt, Esq., M.P. H. $9\frac{3}{4}$ in. W. $6\frac{1}{2}$ in. 66-12

TANKARD AND COVER, surmounted by a figure of a dolphin. Russian, dated 1740. The original in the possession of G. Moffatt, Esq., M.P. H. $11\frac{1}{2}$ in. W. $9\frac{1}{2}$ in. 66-13

BOWL, globular, the mouth encircled by a belt bearing an inscription in Russian characters, stating it to have been given by the Czar Peter the Great to a Cossack chief. Russian, 17th century. The original in the possession of G. Moffatt, Esq., M.P. H. $5\frac{1}{2}$ in. Diam. $7\frac{1}{2}$ in. 66-15

VASE, portant cette inscription, 'Jacob Marten, -Hamburg, 4. 7ber 1708.' H. 24,13 c. Musée de Kensington. 54-10

CORNET DE CHASSE, avec enroulement de feuillage en bosse. Long. 39,48 c. Allemand, 16ème siècle. L'original, en fer, est au Musée de Kensington. 57-27

HANAP, ivoire céramique monté en argent partiellement doré. H. 48,26 c. Augsburg, dernière période du 17ème siècle. L'original, signé 'Bernard Strauss, goldsmid, fec.,' est au Musée de Kensington. 59-1

TASSE AVEC COUVERCLE, avec trois bandes d'émail; les panneaux du bol et du couvercle renferment des bas-reliefs représentant des sujets tirés de l'Écriture Sainte. Augsburg, 16ème siècle. L'original, en argent doré, est à la Landhaus de Gratz en Styrie. 65-54

HANAP, Mercure et autres figures mythologiques. H. 33,02 c. Allemand, daté 1605. Musée de Kensington. 65-61

SALIÈRE, triangulaire, soutenue par des lions rampants. H. 3,18 c. L. 12,70 c. Allemande, 16ème siècle. Musée de Kensington. 65-66

ÉLECTROTYPES D'OBJETS D'ART FLAMAND.

HANAP, surface à diamant, en bosse. Flamand, 17ème siècle. H. 14,61 c. Musée de Kensington. 54-17

PLAT, le centre en creux et renfermant les figures nues d'Adam et d'Ève; fruits et animaux sauvages sur la bordure. Larg. 66,04 c. Flamand ou des Pays-Bas, 17ème siècle. Hôtel de Cluny, Paris. 56-9

HANAP, ciselé et gravé avec enroulements. H. 19,05 c. Flamand ou Allemand, 17ème siècle. Musée de Kensington. 65-64

HANAP, avec couvercle. L'original fait partie des Joyaux de la Couronne à la Tour de Londres. Flamand, 17ème siècle. H. 25,40 c. Larg. à la base 20,32 c. 66-1

ÉLECTROTYPES D'OBJETS D'ART RUSSE.

HANAP AVEC COUVERCLE, surmonté d'une figure de cygne. Russe, 18ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 24,77 c. L. 16,51 c. 66-12

HANAP AVEC COUVERCLE, surmonté d'une figure de dauphin. Russe, daté 1740. L'original est en la possession de G. Moffatt, Esq., M.P. H. 29,21 c. L. 24,13 c. 66-13

BOL, de forme globulaire, la partie supérieure est entourée d'une ceinture portant une inscription en caractères russes, disant qu'il a été donné en présent à un chef cosaque par le czar Pierre le Grand. Russe, 17ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 13,97 c. Diam. 19,05 c. 66-15

CUP OR CHALICE, Russian (?), 17th century. The original in the possession of G. Moffatt, Esq., M.P. H. $7\frac{3}{4}$ in. Diam. $3\frac{1}{2}$ in. 66-16

SALTCELLAR, cup form with short stem and broad base resting on three ball feet. Russian, 18th century. Original in the possession of G. Moffatt, Esq., M.P. H. $5\frac{1}{2}$ in. Diam. 5 in. 66-18

SALTCELLAR, cup form with short stem and broad base. Russian, 18th century. Original in the possession of G. Moffatt, Esq., M.P. H. $3\frac{1}{2}$ in. Diam. $3\frac{3}{4}$ in. 66-19

CUP OR DRINKING VESSEL, hemispherical form with flat projecting handle, embossed with figures of marine monsters, birds and foliage. Russian, 17th century. Original, of silver gilt, in the possession of G. Moffatt, Esq., M.P. H. $1\frac{1}{2}$ in. Diam. $2\frac{3}{8}$ in. 66-37

CUP OR SALTCELLAR, circular, resting on four ball and claw feet. Russian, 18th century. Original in the possession of G. Moffatt, Esq., M.P. H. $1\frac{1}{4}$ in. Diam. $2\frac{3}{4}$ in. 66-38

ELECTROTYPES OF OBJECTS OF SWEDISH ART.

TANKARD AND COVER, on three foliated ball feet. In the cover is set a medal of Ulrica Eleanor, Queen of Sweden, 1719 to 1741. Swedish (?), 18th century. Original in the possession of G. Moffatt, Esq., M.P. H. $8\frac{1}{4}$ in. W. $8\frac{1}{2}$ in. 66-14

TANKARD AND COVER, on three foliated ball feet. In the cover is inserted a medal of Gustavus Adolphus, King of Sweden, 1611-1632. Swedish (?), 17th century. Original in the possession of G. Moffatt, Esq., M.P. H. 7 in. W. $6\frac{3}{4}$ in. 66-17

ELECTROTYPE OF OBJECT OF SPANISH ART.

DISH, oblong, embossed with escalloped shells and foliage. L. 20 in. W. $13\frac{1}{2}$ in. Spanish, 17th century. Original in the possession of G. Moffatt, Esq., M.P. 54-19

ELECTROTYPES OF OBJECTS OF MOORISH AND EGYPTIAN ART.

COOKING BOWL. Diam. 6 in. Probably from Morocco. South Kensington Museum. 54-28

VASE, with hinged top, with Cufic and Arabic inscriptions; in the large band are Persian figures. H. $3\frac{1}{2}$ in. Diam. $3\frac{3}{8}$ in. Mesopotamian, 14th century. Collection of Rhode Hawkins, Esq. 54-32

BOWL AND COVER. Diam. 5 in. Collection of Rhode Hawkins, Esq. 54-33

TASSE OU CALICE, russe (?), 17ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 19,69 c. Diam. 8,89 c. 66-16

SALIÈRE, en forme de coupe, à fût court et base large, reposant sur trois pieds à boule. Russe, 18ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 13,97 c. Diam. 12,70 c. 66-18

SALIÈRE, en forme de coupe, à fût court et large base. Russe, 18ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 8,89 c. Diam. 9,53 c. 66-19

COUPE OU VASE À BOIRE, de forme hémisphérique avec anse plate en saillie, ornementée de figures de monstres marins, oiseaux et feuillage travaillés en bosse. Russe, 17ème siècle. L'original, en argent doré, est en la possession de G. Moffatt, Esq., M.P. H. 3,81 c. Diam. 6,64 c. 66-37

COUPE OU SALIÈRE, circulaire, reposant sur quatre pieds à boule et à griffe. Russe, 18ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 3,18 c. Diam. 6,99 c. 66-38

ÉLECTROTYPES D'OBJETS D'ART SUÉDOIS.

HANAP AVEC COUVERCLE, sur trois pieds à boule feuillés. Dans le couvercle est enchâssée une médaille d'Ulrique Éléonore, reine de Suède, 1719 à 1741. Suédois (?), 18ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 20,96 c. L. 21,59 c. 66-14

HANAP AVEC COUVERCLE, sur trois pieds à boule feuillés. Dans le couvercle est embossée une médaille de Gustave-Adolphe, roi de Suède 1611-1632. Suédois (?), 17ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. H. 17,78 c. L. 17,15 c. 66-17

ÉLECTROTYPE D'OBJET D'ART ESPAGNOL.

PLAT, oblong, avec coquilles de pétoncle et feuillage en bosse. Long. 50,80 c. Larg. 34,29 c. Espagnol, 17ème siècle. L'original est en la possession de G. Moffatt, Esq., M.P. 54-19

ÉLECTROTYPES D'OBJETS D'ART MORESQUE ET ÉGYPTIEN.

ÉCUELLE DE CUISINE. Diam. 15,24 c. Probablement du Maroc. Musée de Kensington. 54-28

VASE, avec couvercle à charnière, portant des inscriptions cufiques et arabes; dans la bande large sont des figures persanes. H. 8,89 c. Diam. 9,53 c. De Mésopotamie, 14ème siècle. Collection de Rhode Hawkins, Esq. 54-32

BOL AVEC COUVERCLE. Diam. 12,70 c. Collection de Rhode Hawkins, Esq. 54-33

COVERED VASE AND COVER, damascened and chased with moresco work and Arabic inscriptions. H. 7 in. Collection of Rhode Hawkins, Esq. 54-34

VASE, chased with scroll lines and figured. H. $3\frac{1}{2}$ in. South Kensington Museum. 54-41

CUP, ancient Persian or Byzantine. H. $1\frac{1}{2}$ in. Diam. 4 in. 11th or 12th century. South Kensington Museum. 65-65

BOWL AND COVER, engraved and damascened. Diam. 6 in. H. $3\frac{1}{4}$ in. Arabic. South Kensington Museum. 65-71

BOWL AND COVER, engraved with moresque ornament. H. $2\frac{3}{4}$ in. Diam. $5\frac{3}{8}$ in. South Kensington Museum. 65-72

BOWL AND COVER; interlaced arabesque pattern damascened. Diam. $5\frac{1}{4}$ in. South Kensington Museum. 65-73

COVER OF A BOX; damascene work. Diam. $4\frac{3}{8}$ in. South Kensington Museum. 65-74

ELECTROTYPE OF OBJECT OF BYZANTINE ART.

BOOK COVER; with a Cross between the two monograms IC—XC. Byzantine, 6th century. H. 14 in. W. $6\frac{1}{2}$ in. Musée de Louvre, Paris. 55-5

PILLAR CASE, No. 1.

FRAMES, Nos. 1 to 6.

ELECTROTYPE REPRODUCTIONS of 103 Italian medals, 15th and 16th centuries; from originals in the South Kensington Museum.

FRAME, No. 7.

ELECTROTYPE REPRODUCTIONS of 10 French Medals, 15th, 16th, and 17th centuries; from originals in the South Kensington Museum.

FRAME, No. 8.

ELECTROTYPE REPRODUCTIONS of 10 German Medals, 16th century; from originals in the South Kensington Museum.

ELECTROTYPE REPRODUCTIONS.

FRAME, No. 9.

PLATEAU, by Casper Enderlain, after Briot. Swiss, 17th century. Diam. 18 in. South Kensington Museum. 56-1

PLATE, with arms of the Swiss Cantons, and inscriptions. German, 16th century. Diam. $8\frac{1}{4}$ in. South Kensington Museum. 54-12

PLATE, with medallions of mounted German Emperors. German, 16th century. Diameter $7\frac{3}{4}$ in. South Kensington Museum. 54-13

VASE COUVERT ET COUVERCLE, damasquiné, ciselures moresques et inscriptions arabes. H. 17,78 c. Collection of Rhode Hawkins, Esq. 54-34

VASE, figures et enroulements ciseles. H. 8,89 c. Musée de Kensington. 54-41

COUPE, de la Perse ancienne, ou byzantine. H. 2,85 c. Diam. 10,16 c. 11ème ou 12ème siècle. Musée de Kensington. 65-65

BOL AVEC COUVERCLE, gravé et damasquiné. Diam. 15,24 c. H. 8,26 c. Arabe. Musée de Kensington. 65-71

BOL AVEC COUVERCLE, gravé, ornements moresques. H. 6,99 c. Diam. 13,64 c. Musée de Kensington. 65-72

BOL AVEC COUVERCLE, dessin d'arabesques damasquinées et entrelacées. Diam. 13,34 c. Musée de Kensington. 65-73

COUVERCLE DE BOÎTE, damasquiné. Diam. 11,10 c. Musée de Kensington. 65-74

ÉLECTROTYPE D'OBJET D'ART BYZANTIN.

COUVERTURE DE LIVRE, avec une Croix entre les deux monogrammes IC—XC. Byzantine, 6ème siècle. H. 35,56 c. L. 16,51 c. Musée du Louvre, Paris. 55-5

VITRINE DE COLONNE, No. 1.

CADRES, Nos. 1 à 6.

REPRODUCTIONS GALVANOPLASTIQUES de 103 médailles italiennes, 15ème et 16ème siècles; d'originaux au Musée de Kensington.

CADRE, No. 7.

REPRODUCTIONS GALVANOPLASTIQUES de 10 médailles françaises, 15ème, 16ème, et 17ème siècles; d'originaux au Musée de Kensington.

CADRE, No. 8.

REPRODUCTIONS GALVANOPLASTIQUES de 10 médailles allemandes, 16ème siècle; d'originaux au Musée de Kensington.

REPRODUCTIONS GALVANOPLASTIQUES.

CADRE, No. 9.

PLATEAU, par Casper Enderlain, d'après Briot. Suisse, 17ème siècle. Diam. 45,72 c. Musée de Kensington. 56-1

ASSIETTE, avec les armes des Cantons Suisses, et inscriptions. Allemande, 16ème siècle. Diam. 20,96 c. Musée de Kensington. 54-12

ASSIETTE, avec médaillons d'Empereurs Allemands à cheval. Allemande, 16ème siècle. Diam. 19,69 c. Musée de Kensington. 54-13

FRAME, No. 10.

SALVER, with scroll foliage border. Flemish, 16th century. Diam. 13½ in. South Kensington Museum. 54-18

PLATEAU, with medallions containing emblematical figures. Dutch, date 1690. L. 19 in. W. 11 in. South Kensington Museum. 65-62

FRAME, No. 11.

DISH, oval, undulating rim, large flower ornaments. Portuguese, 17th century. L. 19 in. W. 14 in. Collection of G. Moffatt, Esq., M.P. 54-20

SALVER, with raised centre, the rim divided by bands into panels. Portuguese, 17th century. Diam. 11 in. Collection of G. Moffatt, Esq., M.P. 54-21

FRAME, No. 12.

BOOK COVER, with sacred subject and legends. Byzantine, 6th century. H. 6½ in. W. 12 in. Musée du Louvre, Paris. 55-3

PLATEAU, chased with Moresco knots and Arabic letters. Italian, 16th century. Diam. 11 in. South Kensington Museum. 57-21

FRAME, No. 13.

JOUSTING TARGET, with raised central boss. French, 15th century. Diam. 13 in. Nieuwerkerke Collection, Paris. 57-10

DISH, ornamented with classical subjects. German, dated 1567. Diam. 14 in. South Kensington Museum. 56-2

FRAME, No. 14.

KNIFE, FORK, AND SPOON, with handles in imitation carved ivory and gilt blade. French, 17th century. L. 7 in. Collection of R. Napier, Esq. 56-3, 4, 5

NEEDLE CASE, chased and engraved with grotesques. Augsburg, early 18th century. L. 3½ in. South Kensington Museum. 54-15

TABLETS for writing. Augsburg, 18th century. South Kensington Museum. 54-16

GUN FURNITURE, 13 pieces. Italian, French, and German, 16th and 17th centuries. Musée d'Artillerie, Paris. 57-7

REPRODUCTIONS IN FICTILE IVORY, FROM IVORY CARVINGS IN VARIOUS COLLECTIONS.

FRAME, No. 15.

BOOK COVER; age and youth. English, 14th century. 58-243

SIDE OF A MIRROR CASE; surrender of the castle of love. English, 15th century. 58-43

SIDE OF A MIRROR CASE; a tournament. English, 15th century. 58-44

CADRE, No. 10.

PLATEAU, avec bordure de feuillage en enroulement. Flamand, 16ème siècle. Diam. 34,29 c. Musée de Kensington. 54-18

PLATEAU, avec médaillons renfermant des figures emblématiques. Hollandais, date 1690. Long. 48,26 c. Larg. 27,94 c. Musée de Kensington. 65-62

CADRE, No. 11.

PLAT, ovale, à bord ondulé, ornementé de larges fleurs. Portugais, 17ème siècle. Long. 48,26 c. Larg. 35,56 c. Collection de E. Moffatt, Esq., M.P. 54-20

PLATEAU, centre en relief, bord divisé en panneaux par des bandes. Portugais, 17ème siècle. Diam. 27,94 c. Collection de E. Moffatt, Esq., M.P. 54-21

CADRE, No. 12.

COUVERTURE DE LIVRE, avec sujets sacrés et légendes. Byzantine, 6ème siècle. H. 16,51 c. L. 30,48 c. Musée du Louvre, Paris. 55-3

PLATEAU, avec ciselure de nœuds Moresques et lettres Arabes. Italien, 16ème siècle. Diam. 27,94 c. Musée de Kensington. 57-21

CADRE, No. 13.

TARGE DE JOUTE, avec bosse centrale relevée. Française, 15ème siècle. Diam. 33,02 c. Collection Nieuwerkerke, Paris. 57-10

PLAT, ornementé de sujets classiques. Allemand, daté 1567. Diam. 35,56 c. Musée de Kensington. 56-2

CADRE, No. 14.

COUTEAU, FOURCHETTE ET CUILLÈRE, à manches, en imitation d'ivoire sculpté et lame dorée. Français, 17ème siècle. Long. 17,78 c. Collection de R. Napier, Esq. 56-3, 4, 5

ÉTUI À AIGUILLES, ciselé et gravure de grotesques. Augsburg, commencement du 18ème siècle. Long. 8,89 c. Musée de Kensington. 54-15

TABLETTES À ÉCRIRE. Augsburg, 18ème siècle. Musée de Kensington. 54-16

GARNITURE DE FUSIL, 13 pièces. Italiennes, françaises et allemandes, 16ème et 17ème siècles. Musée d'Artillerie, Paris. 57-7

REPRODUCTIONS EN IVOIRE CÉRAMIQUE D'APRÈS DES IVOIRES SCULPTÉS DE DIVERSES COLLECTIONS.

CADRE, No. 15.

COUVERTURE DE LIVRE; la Vieillesse et la Jeunesse. Anglaise, 14ème siècle. 58-243

CÔTÉ D'UN ÉTUI À MIROIR; reddition du Château-Fort de l'Amour. Anglais, 15ème siècle. 58-43

CÔTÉ D'UN ÉTUI À MIROIR; un tournoi. Anglais, 15ème siècle. 58-44

COVER OF A BOX; a tournament, and the siege of the castle of love. English, 14th century. 54-82

FRAME, No. 16.

MIRROR CASE; a king enthroned, and domestic groups. French, early 14th century. 58-207

SIDE OF A MIRROR CASE; the elopement of Queen Guinever and Sir Lancelot. French, 13th century. 54-78

MIRROR CASE; a tournament. French or Italian, 14th century. 58-204

MIRROR CASE; group of travellers. French, 14th century. 58-208

SIDE OF A MIRROR CASE; siege of the castle of love. French, 13th century. 55-43

SIDE OF A MIRROR CASE; a knight and lady playing at draughts. French, 14th century. 58-40

FRAME, No. 17.

HANDLE OF HUNTING KNIFE; figure of Hercules. French, 15th century. 58-257

HANDLE OF HUNTING KNIFE; infant Neptune. French, 15th century. 58-259

TOBACCO GRATER; Venus instructing Cupid. French, 17th century. 58-260

TOBACCO GRATER; grotesque peasant. French (?), 17th century. 58-258

TOBACCO GRATER; harlequin with Viol du Gamba. French, 17th century. 58-253

FRAME, No. 18.

REPRODUCTIONS IN FICTILE IVORY of six ivory plaques carved with infant fauns, Bacchanals, &c., attributed to François Duquesnoy, (Il Fiammingo). Flemish, 17th century. South Kensington Museum. 55-78 to 55-83

FRAME, No. 19.

REPRODUCTIONS IN FICTILE IVORY of three ivory panels, carved with infant Bacchanals, fauns, nymphs, &c.; by Gerhard von Opstal. Flemish, first half of 17th century. 60-1, 3, 5

REPRODUCTIONS IN PLASTER OF SCULPTURED PANELS IN THE SOUTH KENSINGTON MUSEUM.

FRAME, No. 20.

PANEL, with half-figures of the Virgin and Child in low relief; above are two cherubs. Italian, latter half of 15th century; ascribed to Desiderio da Settignano. 66-9

FRAME, No. 21.

PANEL, in low relief; half figures of Christ and St. John the Baptist as children; ascribed to Donatello, Italian, 15th century. 63-13

COUVERCLE D'UNE BOÎTE; un tournoi, et le siège du Château-Fort de l'Amour. Anglais, 14ème siècle. 54-82

CADRE, No. 16.

ÉTUI À MIROIR; un roi sur son trône, et groupes domestiques. Français, commencement du 14ème siècle. 58-207

CÔTÉ D'UN ÉTUI À MIROIR; l'enlèvement de la Reine Genièvre par Sire Lancelot. Français, 13ème siècle. 54-78

ÉTUI À MIROIR; un tournoi. Français ou Italien, 14ème siècle. 58-204

ÉTUI À MIROIR; groupe de voyageurs. Français, 14ème siècle. 58-208

CÔTÉ D'UN ÉTUI À MIROIR; siège du Château-Fort de l'Amour. Français, 13ème siècle. 55-43

CÔTÉ D'UN ÉTUI À MIROIR; un chevalier et une dame jouant aux dames. Français, 14ème siècle. 58-40

CADRE, No. 17.

MANCHE DE COUTEAU DE CHASSE; figure d'Hercule. Français, 15ème siècle. 58-257

MANCHE DE COUTEAU DE CHASSE; Neptune enfant. Français, 15ème siècle. 58-259

RÂPE À TABAC; Vénus instruisant l'Amour. Français, 17ème siècle. 58-260

RÂPE À TABAC; un paysan grotesque. Française (?), 17ème siècle. 58-258

RÂPE À TABAC; un arlequin avec Viole du Gamba. Française, 17ème siècle. 58-253

CADRE, No. 18.

REPRODUCTIONS EN IVOIRE CÉRAMIQUE de six plaques d'ivoire sculptées représentant des faunes enfants, des Bacchanales, etc., attribuées à François Duquesnoy (Il Fiammingo). Flamandes, 17ème siècle. Musée de Kensington. 55-78 à 55-83

CADRE, No. 19.

REPRODUCTIONS EN IVOIRE CÉRAMIQUE de trois panneaux d'ivoire sculptés, représentant des Bacchanales d'enfants, des faunes, des nymphes, etc.; par Gerhard von Opstal. Flamandes, première moitié du 17ème siècle. 60-1, 3, 5

REPRODUCTIONS EN PLÂTRE DE PANNEAUX SCULPTÉS SE TROUVANT AU MUSÉE DE KENSINGTON.

CADRE, No. 20.

PANNEAU, avec demi-figures de la Vierge et l'Enfant Jésus en bas-relief; au-dessus sont deux chérubins. Italien, dernière moitié du 15ème siècle; attribué à Desiderio da Settignano. 66-9

CADRE, No. 21.

PANNEAU, en bas-relief; demi-figures du Christ et de Saint Jean Baptiste enfants; attribué à Donatello. Italien, 15ème siècle. 63-13

FRAME, No. 22.

PANEL, in low relief; the Virgin and Child, by Antonio Rossellino, Florentine, 15th century. 63-10

PILLAR CASE, No. 2.

COLOURED DRAWINGS FROM OBJECTS IN THE GREAT EXHIBITION, 1851, THE COLLECTION OF ARMS AT WINDSOR CASTLE, AND THE LOAN EXHIBITION OF FURNITURE AT GORE HOUSE, 1853; EXECUTED BY STUDENTS OF THE CENTRAL SCHOOL OF ART.

FRAME, No. 1.

SWORD; ivory handle and scabbard, with enamelled mounts set with precious stones. Indian, modern. 994

FRAME, No. 2.

SWORD; ivory handle, with gold enamelled scabbard. Indian, modern. 995

FRAME, No. 3.

SWORD SCABBARD (details) with enamelled mounts. Indian, modern. 993

FRAME, No. 4.

SWORD SCABBARD; velvet with enamelled mounts, knife and sheath; mounted in silver. Indian, modern. 978-9

FRAME, No. 5.

DAGGER; ivory handle, green velvet sheath, ivory mountings inlaid with gold and precious stones.

SWORD, SCABBARD, AND BELT, with enamelled mounts. Indian, modern. 987-8

FRAME, No. 6.

BATTLE AXE; damascened in gold, enamelled and set with precious stones. Indian, modern. 986

FRAME, No. 7.

SWORD SCABBARD AND BELT; with blue translucent enamelled mounts. Indian, modern. 939-9

FRAME, No. 8.

DAGGERS (two), with crimson velvet sheaths, chased metal mounts. Indian, modern. 962

FRAME, No. 9.

EXAMPLES (seven), of enamelled ornaments, gold tissue, and lacquered work. Indian, modern. 1008-13

FRAME, No. 10.

ROSEWATER SPRINKLER, silver parcel gilt and enamelled.

JADE VASE, inlaid with gold, emeralds and rubies. Indian, modern. 1006-7

FRAME, No. 11.

SHIELD, leather with enamelled bosses. Indian, modern. South Kensington Museum. 983

FRAME, No. 12.

GUN; with inlaid metal mountings.

CADRE, No. 22.

PANNEAU, en bas-relief; la Vierge et l'Enfant Jésus, par Antonio Rossellino. Florentin, 15ème siècle. 63-10

VITRINE DE COLONNE, No. 2.

DESSINS COLORIÉS, D'APRÈS DES OBJETS FAISANT PARTIE DE LA GRANDE EXPOSITION DE 1851, DE LA COLLECTION D'ARMES AU CHÂTEAU DE WINDSOR, ET DE L'EXPOSITION À GORE HOUSE DE MEUBLES PRÊTÉS, EN 1853; EXÉCUTÉS PAR DES ÉTUDIANTS DE L'ÉCOLE CENTRALE D'ART.

CADRE, No. 1.

SABRE; poignée et fourreau en ivoire, montures émaillées et incrustées de pierres précieuses. Indien, moderne. 994

CADRE, No. 2.

SABRE; poignée en ivoire et fourreau émaillé en or. Indien, moderne. 995

CADRE, No. 3.

FOURREAU DE SABRE (détails de); montures émaillées. Indien, moderne. 993

CADRE, No. 4.

FOURREAU DE SABRE; en velours et montures émaillées; couteau et gaine, monture en argent. Indiens, modernes. 978-9

CADRE, No. 5.

POIGNARD; poignée en ivoire, gaine en velours vert, montures en ivoire incrustées d'or et de pierres précieuses.

SABRE, FOURREAU, ET CEINTURON; montures émaillées. Indiens, modernes. 987-8

CADRE, No. 6.

HACHE D'ARMES; damasquinée en or, émaillée et incrustée de pierres précieuses. Indienne, moderne. 986

CADRE, No. 7.

FOURREAU ET CEINTURON; montures en émail bleu transparent. Indiens, modernes. 939-9

CADRE, No. 8.

POIGNARDS (deux), avec fourreaux en velours cramoisi, montures en métal ciselé. Indiens, modernes. 962

CADRE, No. 9.

EXEMPLES (sept) d'Ornements émaillés, tissus d'or, et ouvrage en laque. Indien, modernes. 1008-12

CADRE, No. 10.

ASPERSOIR À EAU DE ROSE, argent doré partiellement et émaillé.

VASE DE JADE, incrusté d'or, d'émeraudes et de rubis. Indien, moderne. 1006-7

CADRE, No. 11.

BOUCLIER, en cuir émaillé en bosse. Indien, moderne. Musée de Kensington. 983

CADRE, No. 12.

FUSIL; garnitures incrustées de métal.

SHEATH OF KNIFE; velvet, with chased gold mounts.

Indian, modern. 971-2

FRAME, No. 13.

KNIFE, ivory handle with enamelled sheath.

GUN STOCK, mounted with silver arabesques and inlaid with coral.

Indian, modern. Royal Armoury, Windsor Castle. 991-2

FRAME, No. 14.

KNIFE; ivory and enamelled handle, with enamelled gold sheath. Indian, modern.

South Kensington Museum. 982

FRAME, No. 15.

SCABBARD OF SWORD, with embroidered belt. SHEATH OF DAGGER, green enamel.

EMBROIDERY OF SWORD BELT.

Indian, modern. South Kensington Museum. 973-5

FRAME, No. 16.

BATTLE AXES (two) damascened in gold. Indian, modern. 976-7

FRAME, No. 17.

SWORD HILT, with embroidered scabbard. Indian, modern. 3216

FRAME, No. 18.

SADDLE CLOTH AND FITTINGS, crimson and green velvet with gold studs. Indian, modern. South Kensington Museum. 2457-60

FRAME, No. 19.

SADDLE CLOTH (portions of), crimson and black velvet, embroidered in gold and silver. Indian, modern. 1029-30

FRAME, No. 20.

SHAWL (portion), embroidered in gold. Indian, modern. South Kensington Museum. 3214

FRAME, No. 21.

PRAYER CARPET (portion), gold tissue.

SHAWL (portion), gold tissue. Indian, modern. South Kensington Museum. 1068 & 1042

FRAME, No. 22.

SHAWLS (portions of), gold tissue. Indian, modern. 1036-42

FRAME, No. 23.

SHAWL (portion), gold tissue. Indian, modern.

SHAWL (portion), crimson and gold tissue. Tunisian, modern. South Kensington Museum. 1017-18

FRAME, No. 24.

MATTING AND EMBROIDERED TABLE NAPKINS Indian, modern. 107-8.

FRAME, No. 25.

TABLE COVER (portions of), black cloth, embroidered in gold and coloured silks. Indian, modern. S. Kensington Museum. 3192-2

GAÎNE DE COUTEAU; en velours, montures en or ciselé. Indiens, modernes. 971-2

CADRE, No. 13.

COUTEAU, poignée en ivoire et gaîne émaillée.

MONTURE DE FUSIL, avec arabesques d'argent et incrustations de corail. Indiens, modernes.

Galerie des Armes au Château de Windsor. 991-2

CADRE, No. 14.

COUTEAU; poignée en ivoire, émaillée, et gaîne en or émaillé. Indien, moderne. Musée de Kensington. 982

CADRE, No. 15.

FOURREAU DE SABRE, avec ceinturon brodé.

GAÎNE DE POIGNARD, en émail vert.

BRODERIE DE CEINTURON DE SABRE. Indien, moderne. Musée de Kensington. 973-5

CADRE, No. 16.

HACHES D'ARMES (deux), damasquinées en or. Indiennes, modernes. 976-7

CADRE, No. 17.

GARDE DE SABRE, avec fourreau brodé. Indienne, moderne. 3216

CADRE, No. 18.

HOUSSE ET ACCESSOIRES, en velours cramoisi et vert, avec cloux d'or. Indienne, moderne. Musée de Kensington. 2457-60

CADRE, No. 19.

HOUSSE (portions de), en velours cramoisi et noir, brodé en or et argent. Indienne, moderne. 1029-30

CADRE, No. 20.

SCHALL (portion de), brodé en or. Indien, moderne. Musée de Kensington. 3214

CADRE, No. 21.

TAPIS À PRIÈRE (portion de), en tissu d'or.

SCHALL (portion de), en tissu d'or. Indiens, modernes. Musée de Kensington. 1068 & 1042

CADRE, No. 22.

SCHALL (portions de), en tissu d'or. Indiens modernes. 1036-42

CADRE, No. 23.

SCHALL (portion de), en tissu d'or. Indien, moderne.

SCHALL (portion de), cramoisi et tissu d'or. Tunisien, moderne. Musée de Kensington. 1017-18

CADRE, No. 24.

NATTE ET SERVIETTE DE TABLE BRODÉE. Indiennes, modernes. 1027-8

CADRE, No. 25.

TAPIS DE TABLE (portions de), en drap noir, brodé en or et soies de couleur. Indien, moderne. Musée de Kensington. 3192-2

- FRAME, No. 26.
EMBROIDERY; various colours on blue ground.
Turkish, modern. 1065-6
- FRAME, No. 27.
EMBROIDERY (piece of). Venetian, 18th-4to.
tury.
- FRAME, No. 28.
TABLE COVER (portion of), cloth, embroidered
in various colours. Indian, modern. 2465
- FRAME, No. 29.
SHAWL (portion), embroidered in gold and
coloured silks. Indian, modern. South
Kensington Museum. 3215
- FRAME, No. 30.
CARPETS (portions of two). Indian, modern.
South Kensington Museum. 2465A-2466
- FRAME, No. 31.
CARPETS (portions of two). Indian, modern.
South Kensington Museum. 3207-8
- FRAME, No. 32.
CARPET (portion); woollen, various colours.
- BOX (portion); lacquered work.
Indian, modern. South Kensington Museum.
2450-1
- FRAME, No. 33.
PRAYER CARPET (portion); gold tissue.
- BOX (portion); lacquered work.
Indian, modern. South Kensington Museum
1031-2.
- FRAME, No. 34.
SHAWL (portions of); Cashmere, modern.
South Kensington Museum. 1043-4-5
- FRAME, No. 35.
SHAWL (portions of); Cashmere, modern.
South Kensington Museum. 3200-1-2
- FRAME, No. 36.
SCREEN (portion); embroidered silk. Indian,
modern. South Kensington Museum.
2461
- FRAME, No. 37.
EMBROIDERY; modern Greek and modern
Indian. 3198-9
- FRAME, No. 38.
VELVET, PIECE OF STAMPED; crimson. Italian,
17th century. 391
- FRAME, No. 39.
VELVET, PIECE OF CRIMSON AND YELLOW.
Genoese, 18th century. 2538
- FRAME, No. 40.
CHAIR (portions of); ebony inlaid with ivory.
Indian, modern. 2496-7-8
- FRAME, No. 41.
CHAIR (portions of), ebony inlaid with ivory.
Indian, modern. 2449-2500
- FRAME, No. 42.
PANEL (portion), ebony inlaid with ivory

- CADRE, No. 26.
BRODERIE; diverses couleurs sur fond bleu.
Turque, moderne. 1065-6
- CADRE, No. 27.
BRODERIE (morceau de). Vénitienne, 18ème
siècle. 2474
- CADRE, No. 28.
TAPIS DE TABLE (portion de), en drap, broderie
de diverses couleurs. Indien, moderne.
2465
- CADRE, No. 29.
SCHALL (portion de), brodé en or et soies de
couleur. Indien, moderne. Musée de
Kensington. 3215
- CADRE, No. 30.
TAPIS (portions de deux). Indiens, modernes.
Musée de Kensington. 2465A-2466
- CADRE, No. 31.
TAPIS (portions de deux). Indiens, modernes.
Musée de Kensington. 3207-8
- CADRE, No. 32.
TAPIS (portion de); en laine, à diverses
couleurs.
- BOÎTE (portion de); ouvrage en laque. In-
diens, modernes. Musée de Kensington.
2450-1
- CADRE, No. 33.
TAPIS À PRIÈRE (portion de); tissu d'or.
- BOÎTE (portion de); ouvrage en laque. In-
diens, modernes. Musée de Kensington.
1031-2
- CADRE, No. 34.
SCHALL (portions de); Cachemire, moderne.
Musée de Kensington. 1043-4-5
- CADRE, No. 35.
SCHALL (portions de); Cachemire, moderne.
Musée de Kensington. 3200-1-2
- CADRE, No. 36.
ÉCRAN (portion d'); en soie brodée. Indien,
moderne. Musée de Kensington. 2461
- CADRE, No. 37.
BRODERIE; Grecque moderne et indienne
moderne. 3198-9
- CADRE, No. 38.
PIÈCE DE VELOURS FRAPPÉ; cramoisi. Ita-
lien, 17ème siècle. 391
- CADRE, No. 39.
PIÈCE DE VELOURS CRAMOISI ET JAUNE. Gé-
nois, 18ème siècle. 2538
- CADRE, No. 40.
CHAISE (portions de); en ébène incrusté d'ivoire.
Indienne, moderne. 2496-7-8
- CADRE, No. 41.
CHAISE (portions de); en ébène incrusté d'ivoire.
Indienne, moderne. 9449-2500
- CADRE, No. 42.
PANNEAU (portion de); en ébène incrusté
d'ivoire

HANDLES (details of); ebony inlaid with ivory.
Indian, modern. 1015-16

FRAME, No. 43.

VASE (details of); Cloisonné enamel. Chinese.
996-7-8

FRAME, No. 44.

INCENSE BURNER (details of); Cloisonné enamel,
with metal mounting. Chinese. 999-1000-1

FRAME, No. 45.

VASE (details of); Cloisonné enamel, Chinese.
2462-3-4

FRAME, No. 46.

VASE; Cloisonné enamel, Chinese. 1002

FRAME, No. 47.

VASE, (details of), Cloisonné enamel. Chinese.
1003-4-5

FRAME, No. 48.

DIAPER PATTERN; from a picture by Carlo
Crevelli. Italian, 15th century. 415

FRAME, No. 49.

PANEL from a marquetry cabinet. French,
about 1750. 2519

FRAME, No. 50.

PANEL from a marquetry writing table. Dutch,
about 1700 2473

FRAME, No. 51.

PANELS from a marquetry writing table. Dutch,
about 1700. 2479-9A-9B-80

FRAME, No. 52.

PLAQUES from a Buhl writing table. French,
about 1700. 2511-14

FRAME, No. 53.

CABINET, Florentine Mosaic, date about 1670.
412

FRAME, No. 54.

DOOR OF CABINET, Florentine Mosaic, date
about 1670. 2524

FRAME, No. 55.

CABINET, mounted in Ormolu, and inlaid with
plaques of Sèvres and Wedgwood ware.
French, about 1780. 1552

FRAME, No. 56.

PANEL, painted and varnished, by 'Vernis'
Martin. French, about 1730, from a cabinet
in Windsor Castle. 1730

FRAME, No. 57.

PAIR OF BELLOWS, carved wood. Italian, 16th
century. 409

FRAME, No. 58.

KNOCKER, BRONZE. Venetian, 16th century.
South Kensington Museum. 410

FRAME, No. 59.

KEYS AND IRON SCROLL WORK, various dates
and countries. 408

FRAME, No. 60.

KEYS AND IRON SCROLL WORK, various dates
and countries. 40-67

POIGNÉES (détails de); en ébène incrusté d'ivoire
Indiennes, modernes. 1051-16

CADRE, No. 43.

VASE (détail de); émail cloisonné. Chinois.
996-7-8

CADRE, No. 44.

CASSETTE À BRÛLER L'ENCENS (détails de);
émail cloisonné, et monture en métal. Chi-
noise. 999-1000-1

CADRE, No. 45.

VASE (détails de); émail cloisonné. Chinois.
2462-3-4

CADRE, No. 46.

VASE; émail cloisonné. Chinois. 1002

CADRE, No. 47.

VASE (détails de); émail cloisonné. Chinois.
1003-4-5

CADRE, No. 48.

DESSIN OUVRÉ; d'après un tableau de Carlo
Crevelli. Italien, 15ème siècle. 415

CADRE, No. 49.

PANNEAU, d'un meuble de cabinet en marque-
terie. Français, environ 1750. 2519

CADRE, No. 50.

PANNEAU, d'un cabinet en marqueterie.
Français, environ 1700. 2473

CADRE, No. 51.

PANNEAUX d'une table à écrire en marqueterie.
Hollandais, environ 1700. 2479-9A-9B-80

CADRE, No. 52.

PLAQUES, d'une table à écrire de Buhl.
Françaises, environ 1700. 2511-14

CADRE, No. 53.

MEUBLE, Mosaïque Florentine, date environ
1670. 412

CADRE, No. 54.

PORTE DE MEUBLE, Mosaïque Florentine,
date environ 1670. 2524

CADRE, No. 55.

MEUBLE, monté en ormeau, et incrusté
de plaques de porcelaine de Sèvres et
de Wedgwood. Français, environ 1780.
1552

CADRE, No. 56.

PANNEAU, peint et verni, par 'Vernis Martin.'
Français, environ 1730, d'un cabinet
au château de Windsor. 1730

CADRE, No. 57.

SOUFFLET, en bois sculpté. Italien, 16ème
siècle. 409

CADRE, No. 58.

MARTEAU DE PORTE, Bronze. Vénitien, 16ème
siècle. Musée de Kensington. 410

CADRE, No. 59.

CLEFS ET OUVRAGE À ENROULEMENTS EN FER,
de dates et contrées diverses. 408

CADRE, No. 60.

CLEFS ET OUVRAGE À ENROULEMENTS EN FER,
de dates et contrées diverses. 0-67

PILLAR CASE, No. 3.

ETCHINGS BY STUDENTS OF THE ETCHING CLASS, SOUTH KENSINGTON MUSEUM; CHROMOLITHOGRAPHS, COLOURED PHOTOGRAPHS, COLOURED DRAWINGS, AND PHOTOLITHOGRAPHS.

FRAMES, Nos. 1 & 2.

ETCHINGS (13); from objects in the South Kensington Museum, executed by students of the etching class, Central School of Art, South Kensington.

FRAME, No. 3.

CHROMOLITHOGRAPH; from a coloured photograph of the Gloucester candlestick. South Kensington Museum. 7649-61

FRAME, No. 4

CHROMOLITHOGRAPH; from a coloured photograph of a Limoges enamel casket. South Kensington Museum. 13-64

FRAME, No. 5.

CHROMOLITHOGRAPH; from coloured photographs of two Della Robbia plateaus. South Kensington Museum. 7632-3-61

FRAMES, Nos. 6, 7, 8.

CHROMOLITHOGRAPH; from life studies in coloured crayons, by the late Wm. Mulready, R.A. South Kensington Museum.

FRAME, No. 9.

COLOURED PHOTOGRAPH OF A CONTEMPORARY PORTRAIT OF KING EDWARD VI.; now at Windsor; lent by her Majesty the Queen to the Portrait Exhibition at South Kensington, 1866 172

FRAME, No. 10.

COLOURED PHOTOGRAPH OF A CONTEMPORARY PORTRAIT OF QUEEN ELIZABETH, as princess, at the age of 16; now in St. James's Palace; lent by her Majesty the Queen to the Portrait Exhibition at South Kensington 1866. 247

FRAME, No. 11.

COLOURED PHOTOGRAPHS; old English earthenware jug. Magniac collection.

TWO VASES; old Bristol porcelain. 18th century. Fry collection.

FRAME, No. 12.

COLOURED PHOTOGRAPH OF A MAIOLICA PLATEAU; subject, Vulcan forging a wing for Cupid. South Kensington Museum. 2990-53

FRAME, No. 13.

COLOURED PHOTOGRAPH OF A MAIOLICA PLATEAU, with a portrait of the painter Perugino in the centre. South Kensington Museum. 7165-60

FRAME, No. 14.

COLOURED PHOTOGRAPH OF A CARVED IVORY POLYPTYCH OR SHRINE. South Kensington Museum. 4686-58

VITRINE DE COLONNE, No. 3.

EAUX-FORTES PAR LES ÉTUDIANTS DU COURS D'EAUX-FORTES AU MUSÉE DE KENSINGTON; CHROMOLITHOGRAPHIES, PHOTOGRAPHIES COLORIÉES, DESSINS COLORIÉS ET PHOTOLITHOGRAPHIES.

CADRES, Nos. 1 & 2.

EAUX-FORTES (13); d'après des objets se trouvant au Musée de Kensington, exécutées par des étudiants du Cours d'Eaux-fortes, Ecole Centrale d'Art, Kensington.

CADRE, No. 3.

CHROMOLITHOGRAPHIE; d'après une photographie coloriée du chandelier de Gloucester. Musée de Kensington. 7649-61

CADRE, No. 4.

CHROMOLITHOGRAPHIE; d'après un photographie coloriée d'une cassette en émail de Limoges. Musée de Kensington. 13-64

CADRE, No. 5.

CHROMOLITHOGRAPHIES; d'après des photographies coloriées de deux plateaux Della Robbia. Musée de Kensington. 7632-3-61

CADRES, Nos. 6, 7, 8.

CHROMOLITHOGRAPHIES; d'après des études d'après nature aux crayons de couleur, par feu Wm. Mulready, R.A. Musée de Kensington.

CADRE, No. 9.

PHOTOGRAPHIE COLORIÉE D'UN PORTRAIT CONTEMPORAIN DU ROI ÉDOUARD VI.; maintenant à Windsor; et prêté par Sa Majesté la Reine à l'Exposition des Portraits Nationaux au Musée de Kensington en 1866. 172

CADRE, No. 10.

PHOTOGRAPHIE COLORIÉE D'UN PORTRAIT CONTEMPORAIN DE LA REINE ÉLISABETH, en princesse, à l'âge de 16 ans; maintenant au Palais de Saint James; et prêté par Sa Majesté la Reine à l'Exposition des Portraits Nationaux au Musée de Kensington en 1866. 247

CADRE, No. 11.

PHOTOGRAPHIE COLORIÉE; vieille cruche en terre, Anglaise. Collection Magniac.

DEUX VASES; vieille porcelaine de Bristol. 18ème siècle. Collection Fry.

CADRE, No. 12.

PHOTOGRAPHIE COLORIÉE D'UN PLATEAU EN MAJOLIQUE; sujet, Vulcain forgeant une aile pour l'Amour. Musée de Kensington. 2990-53

CADRE, No. 13.

PHOTOGRAPHIE COLORIÉE D'UN PLATEAU EN MAJOLIQUE, avec un portrait du Pérugin au centre. Musée de Kensington. 7165-60

CADRE, No. 14.

PHOTOGRAPHIE COLORIÉE D'UN RELIQUAIRE POLYPTYQUE EN IVOIRE SCULPTÉ. Musée de Kensington. 4686-58

FRAME, No. 15.

COLOURED PHOTOGRAPH OF A LAMP IN ORIENTAL GLASS. 14th century. Magniac collection.

FRAME, No. 16.

COLOURED PHOTOGRAPHS ; TRIPTYCH, Champlevé enamel. German, 13th century.

4757-58

PORTABLE ALTAR ; Champlevé enamel. German, about 1200. South Kensington Museum.

4524-58

FRAME, No. 17.

COLOURED PHOTOGRAPHS ; CRYSTAL VASE, mounted in enamelled gold. 16th century.

CUP IN CRYSTAL, mounted in enamelled and jewelled gold. Italian or Spanish, 16th century. Marquess of Salisbury's collection.

FRAME, Nos. 18, 19.

COLOURED PHOTOGRAPHS OF HUNTING HORNS ; Limoges enamel. By L. Limousin. About 1540. Magniac collection.

FRAMES, Nos. 20, 21.

COLOURED PHOTOGRAPHS ; portraits of Charles IX. of France and his Queen, Elizabeth of Austria ; Limoges enamel. By L. Limousin. Dated 1573. Magniac collection.

FRAME, No. 22.

COLOURED PHOTOGRAPHS ; Ciborium or Coffet, in Champlevé enamel.

EWER ; silver-gilt and enamelled. French or Italian, 16th century. Musée du Louvre, Paris.

FRAME, No. 23.

COLOURED PHOTOGRAPHS ; Plaque, Champlevé enamel. Entombment of the Virgin. 12th century.

CASKET ; Champlevé enamel. 13th century. Musée du Louvre, Paris.

FRAME, No. 24.

COLOURED PHOTOGRAPHS ; CUP, in crystal, mounted in enamelled metal. Italian, 17th century.

CRYSTAL EWER. Italian, 16th century. Musée du Louvre, Paris.

FRAME, No. 25.

COLOURED PHOTOGRAPHS ; CUP AND COVER, in crystal, mounted in enamelled gold.

CRYSTAL VASE. 16th century. Musée du Louvre, Paris.

FRAME, No. 26.

COLOURED PHOTOGRAPHS ; CUP, in sardonyx, mounted in enamelled gold.

EWER ; in agate. 17th century. Musée du Louvre, Paris.

FRAME, No. 27.

COLOURED PHOTOGRAPHS ; CUP, in lapis lazuli. Mounted in enamelled gold.

CADRE, No. 15.

PHOTOGRAPHIE COLORIÉE D'UNE LAMPE EN VERRE ORIENTAL. 14ème siècle. Collection Magniac.

CADRE, No. 16.

PHOTOGRAPHIES COLORIÉES ; Triptyque, émail en Champlevé. Allemand, 13ème siècle.

4757-58

AUTEL PORTATIF ; émail en Champlevé. Allemand, environ 1200. Musée de Kensington.

4524-58

CADRE, No. 17.

PHOTOGRAPHIES COLORIÉES ; VASE DE CRISTAL, monté en or émaillé. 16ème siècle.

COUPE EN CRISTAL, montée en or émaillé et incrustée de pierreries. Italienne ou Espagnole. Collection du Marquis de Salisbury.

CADRES, Nos. 18, 19.

PHOTOGRAPHIES COLORIÉES DE CORNETS DE CHASSE ; émail de Limoges. Par L. Limousin. Environ 1540. Collection Magniac.

CADRES, Nos. 20, 21.

PHOTOGRAPHIES COLORIÉES ; Portraits de Charles IX. de France et de la Reine, son épouse, Elisabeth d'Autriche ; émail de Limoges. Par L. Limousin. Datés 1573. Collection Magniac.

CADRE, No. 22.

PHOTOGRAPHIES COLORIÉES ; Ciborium ou Coffret, émail en Champlevé.

AIGUIÈRE ; argent doré et émaillé. Française ou Italienne. 16ème siècle. Musée du Louvre, Paris.

CADRE, No. 23.

PHOTOGRAPHIES COLORIÉES ; Plaque, émail en Champlevé. Mise au Tombeau de la Vierge. 12ème siècle.

CASSETTE ; émail en Champlevé. 13ème siècle. Musée du Louvre, Paris.

CADRE, No. 24.

PHOTOGRAPHIES COLORIÉES ; COUPE, en cristal, montée en métal émaillé. Italienne. 17ème siècle.

PHOTOGRAPHIES COLORIÉES ; AIGUIÈRE DE CRISTAL ; Italienne, 16ème siècle. Musée du Louvre, Paris.

CADRE, No. 25.

PHOTOGRAPHIES COLORIÉES ; COUPE ET COUVERCLE ; en cristal, montées en or émaillé.

VASE EN CRISTAL, COLORIÉ. 16ème siècle. Musée du Louvre, Paris.

CADRE, No. 26.

PHOTOGRAPHIES COLORIÉES ; Coupe, en sardoine, montée en or émaillé.

AIGUIÈRE ; en agate. 17ème siècle. Musée du Louvre, Paris.

CADRE, No. 27.

PHOTOGRAPHIES COLORIÉES ; COUPE, en lapis lazuli. Montée en or émaillé.

EWER; in sardonyx. Mounted in enamelled gold, set with jewels. Musée du Louvre, Paris.

FRAME, No. 28.

COLOURED PHOTOGRAPHS; PASTORAL STAFF; Champlevé enamel. 13th century

PORTABLE ALTAR; Champlevé enamel. 12th century. Musée du Louvre, Paris.

FRAME, No. 29.

COLOURED PHOTOGRAPHS; VISION OF ST. FRANCIS; enamel. 13th century.

COFFER; Limoges Champlevé enamel, with the armorial bearings of England and France. 13th century. Musée du Louvre, Paris.

FRAME, No. 30.

COLOURED PHOTOGRAPHS; PORTRAITS of Henri II. of France, and of Anne de Montmorency, High Constable of France. Limoges enamel, by L. Limousin. Musée du Louvre, Paris.

FRAME, No. 31.

COLOURED PHOTOGRAPHS; PORTRAITS of François de Lorraine, Duc de Guise, and of François II. Limoges enamel, by L. Limousin. 16th century. Musée du Louvre, Paris.

FRAME, No. 32.

COLOURED PHOTOGRAPHS; EWER; Henri II. ware. French. Date about 1550. Magriac Collection.

PILGRIM'S BOTTLE; Maiolica of Urbino, date about 1550. Musée du Louvre, Paris.

MAJOLICA PLATE; figure of St. Jerome. Dated 1520.

FRAME, No. 33.

COLOURED PHOTOGRAPHS; NAUTILUS SHELL; mounted in silver gilt.

AGATE OR SARDONYX VASE; mounted in silver gilt. Green Vaults, Dresden.

FRAME, No. 34.

COLOURED PHOTOGRAPHS; EWER; in carved amber, mounted in silver gilt, jewelled and enamelled.

HANAP; of rock crystal, mounted in gold. 14th or 15th century. Green Vaults, Dresden.

FRAMES, Nos. 35, 36.

COLOURED DRAWINGS; beakers and covers, two (with details). Oriental enamelled glass. German mounting. Green Vaults, Dresden.

FRAMES, Nos. 37, 38.

COLOURED DRAWINGS; Two embroidered hunting purses. Green Vaults, Dresden.

FRAME, No. 39.

COLOURED DRAWING; Alcoves in the Church of Sta. Maria l'Incoronata, at Lodi.

FRAME, No. 40.

COLOURED DRAWING; Organ and Choir, Sta. Maria l'Incoronata, at Lodi.

AIGUIÈRE; en sardoine. Montée en or émaillé, et incrustée de pierreries. Musée du Louvre, Paris.

CADRE, No. 28.

PHOTOGRAPHIES COLORIÉES; BÂTON PASTORAL; émail en Champlevé. 13ème siècle.

AUTEL PORTATIF, émail en Champlevé. 12ème siècle. Musée du Louvre, Paris.

CADRE, No. 29.

PHOTOGRAPHIES COLORIÉES; VISION DE ST. FRANÇOIS; émail. 13ème siècle.

COFFRET; émail de Limoges en Champlevé, avec les armes d'Angleterre et de France. 13ème siècle. Musée du Louvre, Paris.

CADRE, No. 30.

PHOTOGRAPHIES COLORIÉES; PORTRAITS de Henri II. de France, et du Grand Connétable, Anne de Montmorency. Émail de Limoges, par L. Limousin. Musée du Louvre, Paris.

CADRE, No. 31.

PHOTOGRAPHIES COLORIÉES; PORTRAITS de François de Lorraine, Duc de Guise, et de François II. Émail de Limoges, par Limousin. 16ème siècle. Musée du Louvre, Paris.

CADRE, No. 32.

PHOTOGRAPHIES COLORIÉES; AIGUIÈRE; faïence de Henri II.

BOUTEILLE DE PÉLERIN; Majolique d'Urbino, date environ 1550. Musée du Louvre, Paris.

ASSIETTE EN MAJOLIQUE; figure de Saint Jérôme. Datée 1520.

CADRE, No. 33.

PHOTOGRAPHIES COLORIÉES; COQUILLE DE NAUTILE; montée en argent doré.

VASE EN AGATE OU SARDOINE; monté en argent doré. Voûtes Vertes, Dresde.

CADRE, No. 34.

PHOTOGRAPHIES COLORIÉES; AIGUIÈRE; d'ambre sculpté, montée en argent doré, incrustée de pierreries et émaillée.

HANAP; en cristal de roche, montée en or. 14ème ou 15ème siècle. Voûtes Vertes, Dresde.

CADRES, Nos. 35, 36.

DESSINS COLORIÉS; gobelets et couvercles, deux (avec détails) en verre Oriental émaillé. Monture Allemande. Voûtes Vertes, Dresde.

CADRES, Nos. 37, 38.

DESSINS COLORIÉS; deux bourses de chasse brodées. Voûtes Vertes, Dresde.

CADRE, No. 39.

DESSIN COLORIÉ; Alcôves dans l'Église de Santa Maria l'Incoronata, à Lodi.

CADRE, No. 40.

DESSIN COLORIÉ; Orgue et Chœur, Santa Maria l'Incoronata, à Lodi.

FRAME, No. 41.

COLOURED DRAWING ; Decoration from the Church of St. Francis, at Assisi.

FRAME, No. 42.

COLOURED DRAWING ; Courtyard of the Palazzo Vecchio, Florence, with Arabesques of the 16th century, and fountain by And. Verrocchio.

FRAME, No. 43.

COLOURED DRAWING ; Interior of the kitchen of the Counts Rusca, Lords of Como, with furniture, &c., of the 16th century.

FRAME, No. 44.

COLOURED DRAWING ; The Nativity and Resurrection of Christ, from the fresco by Raphael at Cagli, copied for the Arundel Society.

FRAME, No. 45.

COLOURED DRAWING ; Decorations of Salone della Storia Naturali, Palazzo Vecchio Milan, by Giulio Romano and assistants. Date, about 1515.

FRAME, No. 46.

COLOURED DRAWING ; Ceiling of the Sala del Cambio, Perugia, decorated by Perugino. 15th century.

FRAME, No. 47.

COLOURED DRAWING ; Painted friezes, pilasters, plan and section of the Church of St. Salvatore, Pavia.

FRAME, No. 48.

COLOURED DRAWING ; Courtyard of the Castel Pandino, near Lodi.

FRAME, No. 49.

DRAWING ; Decorations of the Castel Pandino near Lodi.

FRAME, No. 50.

COLOURED DRAWING ; Castel Pandino, decoration under the portico.

FRAMES, Nos. 51-55.

COLOURED DRAWINGS ; details of brick and terracotta buildings in Milan, Pavia, Brescia, Monza, and other North Italian towns.

FRAMES, Nos. 56-60.

PHOTOLITHOGRAPHS ; after drawings by the late Wm. Mulready, R.A.

PILLAR CASE, No. 4.

FRAMES, Nos. 1-60.

PHOTOGRAPHS of ancient sculpture, paintings, drawings, miniatures, and objects of Art from various collections. Taken from the Science and Art Department, South Kensington.

PAINTING.

PAINTING in oil on canvas, copy by a modern Italian artist of a portion of a fresco by Benozzo Gozzoli (1408 to 1478) in the Riccardi Palace, Florence, subject a hunting procession. 66-51

CADRE, No. 41.

DESSIN COLORIÉ ; Décoration tirée de l'Eglise de Saint-François, à Assisi.

CADRE, No. 42.

DESSIN COLORIÉ ; Cour du Palazzo Vecchio, à Florence, avec Arabesques du 16ème siècle, et fontaine par And. Verrocchio.

CADRE, No. 43.

DESSIN COLORIÉ ; Intérieur des cuisines des Comtes Rusca, Seigneurs de Côme, avec meubles, etc., du 16ème siècle.

CADRE, No. 44.

DESSIN COLORIÉ ; la Nativité et la Résurrection de Jésus-Christ, d'après la fresque de Raphaël à Cagli, copiée pour la Société Arundel.

CADRE, No. 45.

DESSIN COLORIÉ ; Décorations du Salon d'Histoire Naturelle du Palazzo Vecchio, à Milan, par Jules Romain et ses élèves. Date, environ 1515.

CADRE, No. 46.

DESSIN COLORIÉ ; Plafond de la Sala del Cambio, à Pérouse, décoré par le Pérugin. 15ème siècle.

CADRE, No. 47.

DESSIN COLORIÉ ; Frises peintes, pilastres, plan et section de l'Eglise de San Salvatore, Pavie.

CADRE, No. 48.

DESSIN COLORIÉ ; Cour du Castel Pandino, près de Lodi.

CADRE, No. 49.

DESSIN ; Décorations du Castel Pandino, près de Lodi.

CADRE, No. 50.

DESSIN COLORIÉ ; Castel Pandino, décoration sous le portique.

CADRES, Nos. 51-55.

DESSIN COLORIÉ ; Détails d'édifices en briques et terra-cotta, à Milan, Pavie, Brescia, Monza, et autres villes de l'Italie du Nord.

CADRES, Nos. 56-60.

PHOTOLITHOGRAPHIES ; d'après des dessins de feu Wm. Mulready, R.A.

VITRINE, No. 4.

CADRES, Nos. 1-60.

PHOTOGRAPHIES de sculpture ancienne, peintures, dessins, miniatures, et objets d'art tirés de plusieurs collections. Du Département des Sciences et Arts à South Kensington.

PEINTURE.

PEINTURE à l'huile sur canevas, copie faite par un artiste italien moderne d'une partie d'une fresque par Benozzo Gozzoli (1408 à 1478) au Palais Riccardi à Florence : sujet, une partie de chasse.

CASTS IN PLASTER.

PLASTER CAST; pulpit formerly in the cathedral at Pisa, injured in the fire of 1596, and the fragments preserved in the crypt of the cathedral, by Giovanni Pisano. Date 1302 to 1311. 65-52

PLASTER CAST, the tomb of Filippo Decio, a Sienese Lawyer, in the Campo Santo, Pisa, by Stagio Stagi. Date about 1530. 65-56

PLASTER CAST, Scandinavian Cross, with interlaced serpent decoration on three sides of the shaft, a Runic inscription on the fourth side; the original is in the graveyard of Kirk Braddan, Isle of Man. 66-35

PLASTER CAST: inner jamb, surmounted by the figures of St. Peter and St. Paul, on the right of the great portal known as the Porta della Gloria, Santiago, Spain. From the cast of the portal made for the South Kensington Museum. 66-50

PLASTER CASTS: four figures of elders, from the central arch of the great portal known as the Porta della Gloria, Santiago, Spain. From the cast of the portal made for the South Kensington Museum. 66-50

PLASTER CASTS, two, in 'fibrous plaster': portions of carved friezes, from the ruined temple of Saitron, near Rajpootana. The originals, of stone, were presented to the Architectural Museum, South Kensington, by Sir Bartle Frere. 66-35, 36

PLÂTRE.

FONTA EN PLÂTRE d'une chaire autrefois dans la cathédrale de Pise, rompue à l'incendie de 1596, et ses fragmens préservés dans le crypte de la cathédrale; par Giovanni Pisano. De 1302 à 1311. 65-52

FONTA EN PLÂTRE du tombeau de Filippo Decio, avocat siénois, dans le Campo Santo à Pise. Par Stagio Stagi. De 1530 environ. 65-56

FONTA EN PLÂTRE d'une croix de Scandinavie, avec treillage de serpents enlaçant les trois côtés de l'arbre, au quatrième une inscription runique. L'original de cette fonta se trouve au cimetière de Kirk Braddan, Île de Man. 66-35

FONTA EN PLÂTRE: jambage intérieur, surmonté de figures de St. Pierre et de St. Paul, au droit du grand portail connu comme la Porte de la Gloire, église de St. Jacques, en Espagne. De la fonta du portail coulée pour le Musée de South Kensington. 66-50

FONTES EN PLÂTRE: quatre figures de prêtres, de l'arche central du grand portail connu comme la Porte de la Gloire, église de St. Jacques, en Espagne. De la fonta du portail coulée pour le Musée de South Kensington. 66-50

DEUX FONTES en 'plâtre fibreux' de portions de frises sculptées du temple ruiné de Saitron, près de Rajpootana. Les originaux, en pierre, furent présentés au Musée Architectural de South Kensington, par Sir Bartle Frere. 66-35, 36

ROYAL COMMISSIONERS, VICTORIA.

CASTS OF ABORIGINES TAKEN FROM LIFE, SIXTEEN SPECIMENS.

3 of children, aged 11, 12, & 14 (Nos. 3, 12 & 14)
1 of child „ 6 (No. 15)

1 of adult aged 18 (No. 4)
7 of men „ 22, 23, 26, 30, 40, 60
and 65 (Nos. 16, 8, 6, 7, 5, 13, & 10)

CLASS IX.

MRS. CAMERON'S PHOTOGRAPHS.

MRS. CAMERON'S PHOTOGRAPHS

Are all taken from the life, not enlarged. They are all untouched prints from untouched negatives, as MRS. CAMERON works as an amateur at Freshwater, in the Isle of Wight, and takes as well as prints her own photographs without any assistance whatever. MRS. CAMERON uses chiefly a lens made by Jamin.

MRS. CAMERON'S photographs may be purchased of MESSRS. COLNAGHI, 14 Pall Mall East, London, S.W.

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Toutes exécutées directement d'après nature, toutes des reproductions non-retouchées d'épreuves négatives également non-retouchées. MME. CAMERON travaille en amateur à Freshwater, dans l'Île de Wight, et prend, et reproduit, ses propres photographies sans l'aide de personne. MME. CAMERON se sert principalement de la lentille fabriquée par Jamin.

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FOTOGRAFIE DELLA SIGNORA CAMERON

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WARNER, W. HARDING, *Ross, Herefordshire, England.*

These Views are Photographed by W. HARDING WARNER, and published by WILLIAM HEATH,
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Prezzo, montate come nella cornice, UNO SCILLINO CIASCUNA PARI A LIT. 1.25c.

ROSS, THOMAS, 53 *Wigmore-street, Cavendish-square, w. (late of 2 and 3 Featherstone-buildings, Holborn), London.*

Manufacturer of first-class Microscopes, Telescopes, Photographic Lenses and Apparatus, &c.
Fabricant de Microscopes, Télescopes, Lentilles et Appareils Photographiques, etc., de première classe.
 Fabricant von Microscopen, Telescopen, photographischen Linsen und Apparaten u. s. w.
 erster Qualität.

Fabbricante di Microscopi, Cannocchiali, Lenti e Appareti Fotografici di Primo Ordine, ecc.

Obtained Prize Medals at the Great Exhibitions of 1851 and 1862.

Ross's microscopes have always held the highest place in the estimation of scientific men. The achromatic objectives possess great penetration and brilliant definition. The higher powers work through great thickness of covering glass.

Ross's telescopes, it will suffice to remark, are used almost exclusively by officers in the British navy, and also by deerstalkers, tourists, &c. These instruments are honoured by royal patronage.

Ross's photographic lenses are too well known to need comment. The greatest novelty in this branch of manufacture is Ross's actinic Doublet lens for landscapes, architectural subjects, and copying; these lenses include a very wide angle of subject on plates of all dimensions, and reproduce straight lines without the slightest curvature. An important feature in the performance of these instruments is perfect freedom from that defect inherent to many photographic lenses—the production of haziness in the centre of the picture.

Catalogues are sent on application.

A obtenu des Médailles aux Grandes Expositions de 1851 et 1862.

Les microscopes de Ross ont toujours occupé la première place dans l'estime des hommes de science. Leurs objectifs achromatiques possèdent au plus haut degré les pouvoirs de pénétration et de définition. Ceux même d'un grossissement supérieur fonctionnent à travers des lamelles d'une épaisseur considérable.

On se bornera à faire remarquer que ce sont les télescopes de Ross dont se servent presque exclusivement les officiers de la Marine Anglaise, ainsi que les chasseurs, les touristes, etc. Ces instruments ont été aussi honorés de la faveur royale.

Les objectifs photographiques de Ross sont avantageusement connus, et n'ont nul besoin de commentaire. La plus grande nouveauté dans cette branche de manufacture consiste dans le Doublet actinique pour paysages, sujets d'architecture et copies. Ces lentilles comprennent un angle fort considérable sur plaques de toutes dimensions, et reproduisent les lignes droites sans la plus légère courbure. Un trait important dans la manière de fonctionner de ces instruments est leur parfaite exemption de miroitement, défaut inhérent à beaucoup de lentilles photographiques.

Catalogues envoyés sur demande.

Erhielten Preismedaillen auf den grossen Industrie-Ausstellungen von 1851 und 1862.

Ross's Microscope haben stets den höchsten Standpunkt in der Achtung wissenschaftlicher Männereingenommen. Die achromatischen Objectivgläser besitzen grosse Durchdringungskraft und brillante Klarheit. Die stärksten Objectivlinsen können benutzt werden, auch wenn Gegenstände unter dicke Deckgläser gelegt sind.

Ross's Telescope, es genügt zu bemerken, werden fast ausschliesslich von den Officieren der Britischen Flotte, ebenso von Jägern, Touristen u. s. w. gebraucht.

Ross's photographische Linsen sind so wohl bekannt, dass sie keiner Empfehlung bedürfen. Die grösste Neuigkeit in diesem Zweige der Photographie ist Ross's actinische Doubletlinse für Landschaften, architectonische Gegenstände und zum Copiren. Diese Linsen, welche dem Bilde grossen Glanz geben, umfassen einen sehr grossen Winkel für den Gegenstand auf Platten von allen Grössen und stellen gerade Linien ohne die geringste Abweichung her. Ein wichtiger Zug in der Leistung dieser Instrumente ist, dass sie vollkommen frei von dem vielen photographischen Linsen eigenen Fehler sind, einen unklaren Fleck in der Mitte des Bildes zu bewirken.

Cataloge werden aufgefällige Anfrage gesandt.

Ottenne Medaglie alle Grandi Esposizioni del 1851 e 1862.

I microscopi di Ross hanno sempre occupato il posto il più eminente nella stima degli scienziati. Le obbiettive acromatiche posseggono una grande penetrazione ed una definizione brillante. Quelle d' un potere superiore operano a traverso una grande densità di vetro.

Basterà d' osservare che i cannocchiali di Ross sono usati quasi esclusivamente dagli ufficiali della Marina Inglese, dai cacciatori, dai viaggiatori, ecc. Questi strumenti sono stati onorati del Patronato Real.

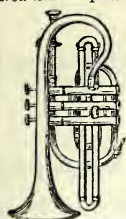
Le lenti fotografiche di Ross sono bene celebrate: non richiedono encomio. La più grande novità di questo ramo di manifattura consiste nella sua lente attinica 'Doublet' per paesaggi, soggetti d' architettura, e per copiare. Queste lenti inchiudono un angolo larghissimo di subietto sopra quadri d' ogni dimensioni, e riproducono linee rette senza la minima curvatura. Un carattere importante nell' azione di questi strumenti è la perfetta assenza del difetto inerente a molte lenti fotografiche—la produzione di nuvolosità nel centro del quadro.

Si mandano i cataloghi a richiesta.

CLASS X.

F. BESSON & CO., *Manufacturers of Brass and Wood Musical Instruments by a Patent Mathematical and 'Prototype' System,* rewarded with Twenty-four Medals of Honour.*

New Star Jupiter.



English Model.

Makers to the Armies, Navies, and Academies of Music of Great Britain, France, Belgium, Spain, &c., &c.

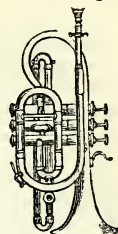
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Branches at Paris, Madrid, Barcelona, Brussels, Charleroi, and the Indies.

Instruments of every description, from those of the simplest and cheapest kind up to the most elaborate.

SPECIAL BRANCH FOR INSTRUMENTS FOR WORKING MEN'S BANDS.

New Star Jupiter.



French Model.

Instruments with transposition register, (patented the 8th September, 1858) (BESSON & GIRARDIN), enabling the most difficult music to be executed (even that of the violin), without any curtailment, without change of tone or special arrangement of the slides, and without there being any necessity for withdrawing the lips from the instrument, whatever number of sharps and flats may occur to the key. These instruments will allow composers the greatest freedom of composition, without their being continually stopped, by the difficulties caused by the defects of ordinary instruments.

Trombones with 3 to 6 valves of every shape and key, from *F* tenor to *B* \flat contra-bass, and retaining the genuine tone of the slide trombone.

Slide trombones with 2 valves.

Instruments with 3 independent valves and a register forming 8 independent positions. (Patented 16th November, 1857.)

Transposition Register applied to instruments with dependent valves. (Patented 1856.)

Instruments of every description, with one ascending piston of a tone or half tone.

Instruments of the usual shape, clear, full, and circular bore, and short, light, and quick action (patented 18th January, 1855), with 3, 4, or 5 valves, from the small high soprano to the double *B* \flat contra-bass, invented by BESSON in 1846, exhibited in 1849, and adopted by the military bands by ministerial decree in 1854.

Instruments with moveable bells (patented the 16th November, 1857), by which the last battalion of a regiment on the march is enabled to hear the music, through the facility of directing the sounds at will, upon a given point, in the open air or in an enclosed space.

New trumpets from the high *D* \flat to *G*, in substitution of the ordinary concert trumpet (*trompette d'harmonie*), the difficulty of ma-

naging which, has led to its abandonment. There is no occasion for any special composition for this new trumpet; the same music may be used as for the cornet, and a cornet player can in a few days play this instrument.

French horns (hand or with moveable valves at will), possessing with the pistons, the same kind of sound and vibration as the simple horn.

Echo instruments, retaining with the echo, all the original justesse of the instrument.

Neoforn instruments, circular, with moveable bells.

Circular contra-basses passing over the shoulder, invented by BESSON in 1855.

Duty bugles according to new regulations.

Clarionets, new systems, bassoons, oboes, flutes, &c. &c.

Experimental acoustic instruments in paper, cloth, gutta percha, plaster, board, etc., etc., possessing the same qualities of tone and justesse as those in brass.

N.B. The fact is well known that no manufacturer hitherto has been able to succeed in producing a cornet in *C*, good as far as *A* \sharp ; a good bugle in *C* and *B* \flat ; a tenor horn (to be introduced in the cavalry in place of the French horns) truly good in *F* \sharp to *C*; a Baritone, an Euphonium, a trombone good in *C* and in *B* \flat ; a good contra-bass in *F* and in *E* \flat ; or a good double contra-bass in *C* and *B* \flat .

But by BESSON's system, viz. the PATENTED PROTOTYPES, manufactured upon mathematical principles, the excellence of these instruments is guaranteed in all their keys, and any number of instruments, equally perfect, can be produced with mathematic certainty.

* By this system, F. Besson & Co. will fix in the walls of any fort, at a very moderate price, any number of duty bugles, warranted true and indestructible, without endangering the life of the man while playing in time of war.

BROADWOOD, JOHN, & SONS, 33 Great Pulteney-street, London, w.

Five Grand Pianofortes with Iron Frame, Patent Screw Pin Piece, and all recent improvements.
Cinq Pianos à Queue, à Charpente en Fer, Plaque brevetée à Chevilles à vis, et munis de tous les Perfectionnements les plus récents.

Fünf Flügel mit eisernem Rahmen, patentirter Schraubenstimmnägelpatte und allen neuesten Verbesserungen.

No. 19,957.

FULL SIZE in case of Coromandel wood.

Construction—Iron frame; one straight iron brace, flanged; one oblique iron brace, flanged; brass suspension bar; patent screw pin piece.

Price, 400 guineas.

No. 19,999.

FULL SIZE, in ebony case with carved mouldings.

Construction—Iron frame; one straight iron brace, flanged; one oblique iron brace, flanged; brass suspension bar; patent screw pin piece.

Price, 400 guineas.

No. 20,004.

In plain Canadian-oak case.

Construction—Iron frame; one straight iron brace, flanged; one oblique iron brace, flanged; brass suspension bar; patent screw pin piece.

This is a concert instrument.

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No. 20,009.

In fine Syrian walnut-wood case.

Construction—Iron frame; two straight iron braces, flanged; patent screw pin piece.

Price, 250 guineas.

No. 5,914.

MEDIUM SIZE in rosewood case.

Construction—Iron frame; two straight iron braces, flanged; patent screw pin piece.

Price, 135 guineas.

VARIOUS MODELS, illustrating construction.

No. 19,957.

GRAND MODÈLE; caisse en bois de Coromandel.

Construction—Charpente en fer; une barre droite en fer, à rebords; une barre oblique en fer, à rebords; barre de suspension en cuivre; plaque brevetée à chevilles à vis.

Prix, 10,500 frs.

No. 19,999.

GRAND MODÈLE; caisse en ébène avec moulures sculptées.

Construction—Charpente en fer; une barre droite en fer, à rebords; une barre oblique en fer, à rebords; barre de suspension en cuivre; plaque brevetée à chevilles à vis.

Prix, 10,500 frs.

No. 20,004.

Caisse en chêne du Canada.

Construction—Charpente en fer; une barre droite en fer, à rebords; une barre oblique en fer, à rebords; barre de suspension en cuivre; plaque brevetée à chevilles à vis.

Ce piano est un instrument de concert.

Prix, 5,250 frs.

No. 20,009.

Caisse en beau noyer de Syrie.

Construction—Charpente en fer; deux barres droites en fer, à rebords; plaque brevetée à chevilles à vis.

Prix, 6,562 frs.

No. 5,914.

MOYEN MODÈLE; caisse en bois de palisandre.

Construction—Charpente en fer; deux barres droites en fer, à rebords; plaque brevetée à chevilles à vis.

Prix, 3,544 frs.

DIVERS MODÈLES illustrant la construction des instruments.

No. 19,957.

ERSTE GRÖSSE, in Kasten von Coromandel-Holz.

Construction: Eiserner Rahmen; eine gerade eiserne Spreize, gerändert; eine schiefe eiserne Spreize, gerändert; messingene Tragspreize; patentirte Schraubenstimmnägelpatte.

Preis: 2,800 Thlr.

No. 19,999.

ERSTE GRÖSSE, in Kasten von Ebenholz, mit Bildhauerarbeit.

Construction: Eiserner Rahmen; eine gerade eiserne Spreize, gerändert; eine schiefe eiserne Spreize, gerändert; messingene Tragspreize; patentirte Schraubenstimmnägelpatte.

Preis: 2,800 Thlr.

No. 20,004.

In einfachem Kasten von Canadischer Eiche.

Construction: Eiserner Rahmen; eine gerade eiserne Spreize, gerändert; eine schiefe eiserne Spreize, gerändert; messingene Tragspreize; patentirte Schraubenstimmnägelpatte.

Dieses ist ein Concert-Instrument.

Preis: 1,400 Thlr.

No. 20,009.

In schönem Kasten von Syrischem Nussbaumholz.

Construction: Eiserner Rahmen; zwei gerade eiserne Spreizen, gerändert; patentirte Schraubenstimmnägelpatte.

Preis: 1,750 Thlr.

5,914.

MITTLERE GRÖSSE, in Kasten von Palisanderholz.

Construction: Eiserner Rahmen; zwei gerade eiserne Spreizen, gerändert, patentirte Schraubenstimmnägelpatte.

Preis: 1,945 Thlr.

VERSCHIEDENE MODELLE, die Construction erläuternd.

CLASS XII.

ALLEN, GEORGE I., *Watcombe House, Watcombe, near Torquay, England.*

Terra Cotta and its Products—*Terre Cuite et ses Produits.*

Terra-Cotta (gebrannter Thon) und seine Producte—*Terra Cotta e sue Applicazioni.*

Terra cotta porous set, specimens showing variations of colour by firing, busts, bas-reliefs, medallions, architectural ornaments, &c.; miniature examples, tiles, bricks, drainage-pipe, &c., and glazed coloured terra cotta (opaque china); ditto (Rockingham); ditto solution for colouring house exteriors and interiors by its application; ditto statuettes, &c., resembling terra cotta by being covered with this durable solution. The blue dye extract and test papers, tobacco pipes (terra cotta, fire gauge), crucibles.

Class 12. Terra cotta, fire gauge crucibles for metals and fluxes and fire clay articles.

Assortiment d'articles en terre cuite poreuse, spécimens montrant les variations de couleur résultant de l'action du feu, bustes, bas-reliefs, médaillons, ornements d'architecture, etc.; modèles en diminutif de tuiles, briques, tuyaux de drainage, etc., et terre cuite de couleur, vernissée (porcelaine opaque); ditto Rockingham; ditto solution pour colorier les maisons à l'intérieur et à l'extérieur par son application; ditto statuettes, etc., ayant toute l'apparence de terre cuite au moyen d'une couverte de cette solution durable. Extrait de teinture bleue et papiers réactifs, pipes à tabac, terra cotta, creusets réfractaires.

Classe 12. Terra cotta, creusets réfractaires pour métaux et fondants, et articles en argile réfractaire.

Poröser Terra-Cotta-Satz; Proben, welche die Farbenveränderung durch Brennen zeigen, Büsten, Basreliefs, Medaillons, architektonische Ornamente u. s. w.; Miniatur-Exemplare, Ziegel, Backsteine, Ableitungsröhren u. s. w. und glasierte bunte Terra-Cotta (undurchsichtiges Porcellan); ditto Rockingham-Waare, ditto Auflösung zum Anstreichen der Aussen-seite und des Innern von Häusern durch seine Anwendung; ditto Statuetten u. s. w., welche, durch die Anwendung dieser dauerhaften Auflösung, wie echte Terra-Cotta erscheinen. Der blaue Farbenextract und Probierpapier, Tabackspfeifen, feuerfeste Schmelztiegel von Terra-Cotta.

Klasse 12. Feuerfeste Schmelztiegel von Terra-Cotta für Metalle und Schmelzungen und Artikel von Feuerthon.

Fornimento in terra cotta porosa, campioni che mostrano le variazioni di colore nella cottura, busti, basso-rilievi, medaglioni, ornati architettonici, ecc., esemplari in miniatura, tegole, mattoni, condotti da scoli, ecc., e terra cotta verniciata in colori (porcellana opaca); detta Rockingham, detta soluzione per colorare le facciate e gli interni delle case colla sua applicazione; detta statuetta, ecc., somiglianti alla terra cotta essendo ricoperti di questa durevole soluzione. Estratto di tinta azzurra e carte di prova chimica, pipe, terra-cotta, crogiuoli a staza da fuoco.

Classe 12. Terra cotta, crogiuoli a staza da fuoco per metalli e composti chimici metallici e oggetti in argilla da fuoco.

THE MODEL OF THE GREEK EGYPTIAN DIAL WITH STEPS,



In the British Museum, explained with reference to the Noah's ark symbolism, for the lunar idolatry of the ancient Egyptian Baalists.

The typical structure of this dial is of great importance for the evidence it affords respecting the reference to the 'flood of Egypt,' in the language of the latter-day Jewish prophecies. For it is not simply a metaphor drawn from the annually recurring flood of the Nile, which the Egyptians observe gladly, from its fertilising effects upon the ground. But the words of Hosea, ix. 3, and Amos, viii. 8, 9, refer us to a *flood of judgment for the Baalistic idolatry of the Egyptians*, which they had built up on those traditional records of Noah and his time, which were handed down of old for a typical instruction unto righteousness from the works of God. The two principal features of this typical instruction unto righteousness were—

1st. From the geological evidences that the earth which we inhabit had at one time been submerged under water.

2nd. From God's ordinances of day and night—for a typical comparison of light and darkness—under a natural and spiritual contrast of varying intensity; by a metaphor drawn from a subordination of power in the greater and lesser lights of heaven; though all were ordained in common to proclaim to man the glorious majesty of God on high.—Psalm, xix; Gen. i. 24.

Hence the reference of Jewish prophecy to the returning '*flood of Egypt*,' predicted Israel's return in the latter days to that lunar worship of the old Egyptian idolatry, for which Jeroboam had forsaken the Levitical law of God's typical ordinances appointed by Moses, and adopted those of the Egyptians relating to their cycle of Horus and the 15 generations of the Cynic circle, for the half month of 15 days as measured by the equinoctial hour of 15 degrees to 60 minutes. The Egyptians seem to have numbered this to the diurnal arc of 10 hours, limited over a polar equinoctial dial, upon the steps of their typical and idolatrous dialling with steps.

Thus the Noah's ark symbolism on our celestial globe was made an idolatrous measure of typical and prophetic time given to the sun's north declination; westward by RHAPSINTUS—as to ascending light reckoned westward going north by the dragon's head—for half the old lunar year of 10 months. For the remaining half they symbolised it as returning eastward, going south by the dragon's tail, for descending light. This they represented by the '*to and fro*' progress of the

shadow from the east and west horns of their hollow semicircular dial, which was of Babylonian origin.

Thus the returning '*flood of Egypt*' has mystic reference to the waters of the great river Euphrates (Rev. xvi. 12.) which began to be dried up at the outpouring of the sixth vial of God's wrath, after the *seventh* trumpet had begun to sound in the Apostolic age. But the drying up of those waters was not until '*three unclean spirits*' had gone forth as a flood out of the mouth of the dragon (Rev. xii. 15.; xvi. 12—14.), and out of the mouth of the beast, and out of the mouth of the false prophet; to gather together the armies of the nations for an exterminating warfare, under a common delusion of the world respecting the universal dominion to be given to the people of Messiah by the events which should follow the sounding of the *seventh* trumpet, as that of final judgment on the city and sanctuary of the (*spiritual*) Egypt in which our Lord was crucified (Rev. xi. 8.), with retrospective reference to Deut. xxviii. 68.

The tropical or '*to and fro*' symbolism of this idolatrous measure for typical and prophetic time (by the sun's two half yearly circuits from tropic to tropic compared with the old lunar year of 10 months, divided into two half cycles of 5 months each) was also made to divide their typical week of 7 days and years into two cycles of $3\frac{1}{2}$ days, or 2 cycles of 1,260 days.

Thus the seven side-steps of the Greek Egyptian dial were given to 7 typical days of 12 hours (for the day without night of Oriental idolatry) measuring only $3\frac{1}{2}$ days of 24 hours, in the order given below from the Hindu zodiac, for the week of 9 days, as $9 \times 40^\circ = 360^\circ$.
1 and 2. The sun and moon, on the meridian of the dial, for the image of the Ephesian Diana coming down from Jupiter.

3. Tuesday to Mars, for the retrograding shadow.

4. Wednesday to Mercury the Caduceus—bearer of Jupiter.

5. Thursday to Jupiter.

6. Friday to Venus.

7. To Saturn, for Saturday, beginning the week with the golden age of Saturn's reign; when *Evening* preceded *Morning*, in the astronomical day of the ancient Orientals.

8 and 9. were given to the Nodes.

CLASS XIII.

TOPOGRAPHICAL DEPARTMENT OF GREAT BRITAIN.

The Topographical Department of Great Britain is a branch of the War Office, and is divided into two distinct sections, to one of which—the Ordnance Survey Department—is committed the task of executing the survey of the United Kingdom, and to the other, called the Topographical and Statistical Depôt, is entrusted the collection and preservation of maps and every kind of statistical information bearing on the military condition and resources of the British empire, and of all other countries of the world.

The Ordnance Survey is carried on by a certain number of officers and men of the Royal Engineers, together with a large number of civil assistants and civil labourers, whilst the duties in the Topographical Depôt are performed by officers selected from all branches of the service, aided by a few civil and military employés.

The department is under the superintendence of a director, who is a colonel of the Royal Engineers.

Ordnance Survey.

The survey of the United Kingdom was commenced under the direction of the Master-General and Board of Ordnance at the end of the last century, and had for its object the production of a military map of the country, the scale of which was fixed at one inch to a mile = $\frac{1}{63360}$.

Considerable progress has been made in the survey, when, in 1824, it was resolved to make a map of Ireland, to remedy the inequalities which existed in apportioning the taxation of land in that country; and the scale of the English survey being evidently inadequate for the exhibition of the details required for the valuation of the land, a scale of six inches to the mile or $\frac{1}{10560}$ was fixed upon for the purpose; and the execution of the survey was entrusted to Major Colby, R.E., the same officer who was carrying on the Ordnance Survey in Great Britain.

The plans of the whole of Ireland were accordingly drawn, engraved, and published on the scale of six inches to the mile; and the value of the map was found to be so great, that upon its completion in 1840, it was determined to transfer the whole surveying force to England, and to employ it in surveying, on the six inch scale, the northern counties of England, which had not as yet been surveyed on any scale. Yorkshire and Lancashire were thus surveyed; but a considerable difference of

opinion arose about this time on the question of the proper scale for the Ordnance Survey; and it was not until after much hesitation and discussion, and the appointment of a royal commission to report on this subject, that the government finally gave orders for the execution of the following series of plans and maps, viz. :—

1. Plans of all towns having above 4,000 inhabitants on the scale of $\frac{1}{500}$ or 10·56 feet to a mile.

2. Plans of parishes, excepting uncultivated districts, on the scale of $\frac{1}{2500}$ or 25·344 inches to a mile, very nearly equivalent to one square inch to one acre, to be accompanied by tables of the contents of the fields and other parcels of ground.

3. Maps of counties on the scale of six inches to one mile = $\frac{1}{10560}$, with a certain number of contours upon them, on the scale of six inches to one mile (being reduced from the larger scales by photography, except the uncultivated districts of which the plans are drawn on the six inch scale).

4. General map of the kingdom on the scale of one inch to a mile = $\frac{1}{63360}$, showing the hill features.

The survey is now proceeding in accordance with these instructions; and the plans on the above scales are being published as fast as they are drawn, the $\frac{1}{2500}$ plans being zincographed, and the maps on the other scales engraved.

Besides carrying on the survey of the United Kingdom, the Ordnance Survey department has been called upon from time to time to furnish parties of trained surveyors, photographers, and printers, for employment on surveys in India, and some of the other colonies of Great Britain; and it has lately executed a contoured survey of Jerusalem and its environs, with a view to the improvement of the sanitary arrangements of that city.

In the year 1859 the art of photozincography was invented at the Ordnance Survey Office, Southampton; and it has since been extensively employed, not only in producing facsimiles of maps, but also in copying Domesday Book, and other ancient MSS. of general interest, for which purpose this process is admirably suited. The photographs taken in the course of the survey of Jerusalem have been copied by the process, and a set of the photozincographic views thus obtained are exhibited, in order to show its capabilities for obtaining prints of views from nature, in permanent ink,

Topographical Dépôt.

The topographical and statistical dépôt was first instituted in the year 1854, when, on the breaking out of the Crimean War, the necessity was felt for a plan department in immediate connection with the War Office. Since the peace the dépôt has been occupied with collecting the best maps and plans of all parts of the world; the compilation and printing of descriptive accounts of the organisation and equipment of the several army departments; the execution of a complete set of plans of the forts and barracks in the United Kingdom and its dependencies for the Royal Engineer Department, &c.

Subjoined is a list of the different specimens exhibited, and which contain maps on all the scales above referred to.

Printed maps.

1. Four sheets of the zincographed map of Hexham parish, Northumberland (with photographs and engravings of the same on the six inch scale), scale 25·344 inches to a mile = $\frac{1}{2500}$ with area book.

This map is sent as a specimen of the survey of Great Britain on the $\frac{1}{2500}$ scale, now in progress. Each sheet of this survey contains $\frac{1}{16}$ th of the area contained in a sheet of the county maps published on the scale of six inches to the mile; and its position is defined by dividing the margins of the six inch sheet in which it is included into 16 equal rectangles, each containing $1\frac{1}{2}$ miles by 1 mile, or 960 acres. The maps on the $\frac{1}{2500}$ scale are published by parishes; and zincographed copies are on sale at 2s. 6d. per sheet.

The accompanying photographs are on the scale of six inches to a mile, and have been used as copies by the engraver in engraving the maps on that scale, which are published by counties, in sheets 3 ft. by 2 ft., corresponding to 6 miles by 4 miles of actual measurement.

2. Four sheets of the engraved map of the county of Edinburgh, scale six inches to a mile = $\frac{1}{10560}$.

3. Four sheets of the engraved map of the city of Edinburgh, scale five feet to a mile = $\frac{1}{1056}$.

The scale of five feet to a mile has been extensively employed on the ordnance survey for plans of the large towns, but the later plans of towns have been drawn on the $\frac{1}{500}$ scale, or 10·56 feet to a mile, as the increased scale has been found necessary for designing sanitary improvements.

4. Six sheets of the engraved map of Scotland (with hills), scale one inch to a mile = $\frac{1}{63360}$.

5. Do., do. with contours, and without hills, on same scale.

Two editions have been issued of those sheets of the one inch map which have been engraved during the last few years, viz., one

in outline with contour lines, and the other with hill features, the former being found very useful for engineering and other purposes, and the latter being adapted for more general use. The duplicate plates are obtained by electrotyping each copperplate as soon as it is engraved in outline, and by engraving the contour lines on the electrotype copy and the hill features on the original plate.

6. Portfolio of engraved plans and maps of the ordnance survey of Jerusalem.

7. Four engraved maps of two-thirds of the sphere (terrestrial and celestial) on Sir H. James's projection.

MS. Maps.

1. MS. sketches of ground in Westmoreland, scale six inches to one mile, with MS. hill drawing and engraved map, containing the same ground on the scale of one inch to a mile = $\frac{1}{63360}$.

These examples show the mode in which the hill drawings are made, from which the hill features are engraved on the one inch maps. The hills are sketched on proof engravings of the six inch county maps, the sketching on the ground being much facilitated and rendered more accurate by the contour lines which are engraved on the maps. In the meantime the one inch map is engraved in outline, and an impression from the copperplate being taken on cardboard, the hills are drawn upon it by means of the sketches. The hills in the one inch map of the north of England and south of Scotland have been drawn in this manner; but in the highlands of Scotland, where the survey is in progress at the present time, the hills are being sketched on photozincographs of the plans, reduced to the scale of two inches to the mile; and the hills are thus more rapidly sketched than on the larger scale, and are more easily copied by the hill draftsman on the one-inch scale.

2. Hill-shaded map of Jerusalem. Scale $\frac{1}{2500}$.

Photographs, Photozincographs, &c.

Various specimens illustrative of the processes of photozincography and photopaperyography. Engravings of two panels in the Vatican, photozincographic facsimiles of.

Views in and about Jerusalem, photographic and photozincographic, bound in two volumes.

Domesday book, photozincographic facsimile of, in two volumes.

Domesday book, photozincographic facsimile of, in parts, by counties.

National MSS. England, photozincographic facsimile of, Parts, I. II. III.

National MSS. Scotland, photozincographic facsimile of, Part I.

Shakespeare's Plays, photozincographic facsimile of (8 plays of the first collected edition, in folio, A.D. 1623).

Scientific Publications.

Principal Triangulation of the United Kingdom, 2 vols. 4to. 1858.

Extension of the Triangulation into France and Belgium, 1 vol. 4to. 1863.

Comparison of National Standards of Length, 1 vol. 4to. 1866.

Levelling in England and Wales, 2 vols. 4to. 1861.

Levelling in Ireland, 1 vol. 4to. 1855.

„ „ Scotland, 2 vols. 4to. 1861.

Electrotype Plates.

Original copperplate.

Electrotype matrix of the same.

„ duplicate „ „

Each sheet of the one-inch maps of Great Britain and Ireland is electrotyped as soon as it is engraved; and the electrotype matrices being preserved, duplicate plates are made from them from time to time, when the plates become worn by printing, or when extensive revisions have to be made, by which means the

copperplates are preserved in as good a state as when they were first engraved. The copperplates of the one-inch map of England and Wales, which were engraved before the invention of electrotype, are many of them completely worn out, and the plates have to be retouched almost to the extent of re-engraving.

Stamps for trees, &c.

These stamps are employed for stamping the trees and figures on the MS. plans, and also on the tracings of the plans on the $\frac{1}{2500}$ scale made for transfer to zinc, and save an immense amount of handwork. They were designed and made at the Ordnance Survey Office.

Punches for Engraving.

All the woods and figures of altitude are engraved on the six-inch and larger scale maps with these punches, which are designed and manufactured by the Ordnance Survey Department.

ROYAL COMMISSIONERS, VICTORIA.

GOLD COLUMN, SHOWING GOLD OBTAINED IN VICTORIA FROM OCTOBER 1851 TO OCTOBER 1861 :—

Gross quantity obtained, 36,514,361 oz. troy
= 1,117 tons 15 cwt. 2 qrs. and 26 lbs.
Value sterling 146,057,444l.

The pyramid is 10 feet square at the base,
and 62 ft. $5\frac{1}{2}$ inches high; its bulk =
2081 $\frac{1}{2}$ cubic feet.

GROUP III.

CLASS XIV.

RADIATING FRAMES FOR EXHIBITING DRAWINGS, PRINTS, &c.

INVENTED BY HENRY COLE, C.B., DIRECTOR OF THE SOUTH KENSINGTON MUSEUM.

This pillar case was invented for the use of the South Kensington Museum. Here, as in other public exhibitions, wall or vertical space is in great demand. This stand of frames supplies hanging space with perhaps the greatest possible economy of room. Within a diameter of about six feet, upwards of thirty frames, of imperial size, affording sixty sides, are hung on a pillar, which rotates to suit the

light. Sixty such frames hung against the wall in a line would require a length of one hundred and twenty feet. They have also this advantage over a portfolio, that the drawings or prints are constantly on view, and may be consulted with facility, and pen and ink drawings may easily be protected from too much light.

JACKSON & GRAHAM, 29, 33, 34, 35, 37 & 38 Oxford-street, London, W.

Carpets and Ornamental Cabinet Furniture—*Tapis et Meubles d'Ornement.*

The establishment of MESSRS. JACKSON & GRAHAM was founded in 1836, and has been continually increasing since that date. At the Great Exhibition of 1851, they received the award of a Prize Medal; at the 'Exposition Universelle,' Paris, 1855, the Gold Medal of Honour for 'Improvements in English Furniture,' and at the International Exhibition, 1862, a Medal for 'great excellence in design and workmanship,' with special commendation in the report of the Jury.

The following are the objects sent to the Paris Universal Exhibition, 1857:—

1. A cabinet, in the Italian renaissance style; of ebony, inlaid with ivory, engraved in the highest style of art, and enriched with lapis lazuli.

2. An étagère en suite.

3. A circular table en suite.

4. A fauteuil en suite.

5. A chair en suite.

6. A cabinet for china, in the Louis XIV. style, in ebony, inlaid with ivory.

7. A case for objects of art, in ebony, inlaid with ivory, in the cinque cento style.

8. A large oval table of amboyna, with rich marqueterie of various woods.

9. A ditto ditto writing table.

10. A ditto ditto, mounted with ormolu.

11. A small amboyna cabinet, inlaid with various woods.

12. A very fine thick Axminster carpet, of Persian design.

L'Établissement de MM. JACKSON ET GRAHAM fut fondé en 1836, et a continuellement gagné en importance depuis cette date. À la Grande Exposition de 1851, ils ont obtenu une Médaille; à l'Exposition Universelle de Paris de 1855, la Médaille d'Honneur en Or pour 'Perfectionnements en Articles d'Ameublement Anglais,' et à l'Exposition Internationale de 1862, une Médaille pour 'excellence de conception et de main-d'œuvre,' avec recommandation spéciale dans le rapport du Jury.

MM. J. ET G. ont envoyé les objets suivants à l'Exposition de Paris de 1857:—

1. Un cabinet dans le style italien de la Renaissance; en ébène, avec incrustations d'ivoire et ciselures de haut goût artistique, et enrichi de lapis lazuli.

2. Une étagère en suite.

3. Une table circulaire en suite.

4. Un fauteuil en suite.

5. Une chaise en suite.

6. Un cabinet, pour porcelaine, style Louis XIV, en ébène, avec incrustations d'ivoire.

7. Un meuble à renfermer des objets d'art, en ébène, avec incrustations d'ivoire, style du quinzième siècle.

8. Une large table ovale d'amboine, avec une riche marqueterie de divers bois.

9. Une table à écrire, ditto, ditto.

10. Une table montée en ormolu, ditto, ditto.

11. Un petit cabinet d'amboine, avec incrustations de divers bois.

12. Un très-fin et haute laine tapis d'Axminster, à dessin persan.

ALDERMAN, JOHN, 16 *Soho-square, London, w.*

The following gratifying Letter has been received by Mr. ALDERMAN from General GARIBALDI:—

‘Caprera, August 20, 1863.

‘Mr. ALDERMAN,—Some time ago I addressed to you a few words of thanks for your magnificent bed, which has been so great a comfort to me during my illness. Now I hear with regret that my letter has miscarried, and I willingly come forward again to express my gratitude to you. You have alleviated half my sufferings. My affectionate thankfulness will accompany you eternally. Accept a grasp of the hand from yours ever,

(Copy.)

‘G. GARIBALDI.’

COMFORT FOR INVALIDS.

By Her Majesty's Royal Letters Patent.

COMFORT POUR LES INVALIDES.

Par la Patente de Sa Majesté Royale.

This couch has three distinct graduating actions by which an invalid can be adjusted imperceptibly to any position without being touched by the nurse. The elastic mattress and the elastic adjusting foundation combined tender this couch free from all pressure, so that a patient cannot become bedsores by long confinement. The wedge-shaped down pillow is also constructed upon a geometrical principle, and is a great comfort.

Cette couche possède trois différents mouvements gradués, au moyen desquels l'invalidé peut être mis imperceptiblement dans chaque position voulue sans être assisté par le garde-malade. Le matelas élastique avec le fond élastique s'ajustant soi-même rend cette couche libre de toute pression, de manière que le malade ne peut jamais s'écrouler même pendant une longue maladie. Le coussin de dessous en forme de coin est également fabriqué d'après des principes géométriques et sera trouvé d'un grand confort.

The self-adjusting movable arms are also a great comfort. They are made to adjust themselves with the action of the back; they are also made to turn back or to take off. Attached to the back of the arms are candlesticks, fixed so as to keep the glare of the candles from the eyes of the patient while reading. The foot scroll is also movable, so that the couch can be elongated or shortened. The couch being upon large easy castors, the invalid can be wheeled from room to room with ease.

Les bras s'ajustant eux-mêmes et correspondant avec le mouvement du dos seront également un grand confort pour le malade; ils sont faits de manière à correspondre avec le mouvement du dos; ils peuvent être tournés en arrière ou ôtés tout à fait. Des chandeliers sont attachés au derrière du dos, de sorte que le malade peut lire sans que la lumière lui fasse mal aux yeux. Le marche-pied est aussi à mouvement, de manière que la couche peut être allongée ou raccourcie, et comme elle repose sur de grandes et bonnes roulettes l'invalidé peut être roulé avec aise d'une chambre à l'autre.

This reading, writing, or dining table is made to raise to any height. The top is made to slide from the centre of the pillar over either side of the couch; the top is divided in the centre, so that each half is made to revolve. From the horizontal far beyond the perpendicular it has rests and slides to hold a book in such a position as to enable an invalid to lay on the back and read without touching the book. When the table is not in use over the couch, or bed, the top slides back to the centre of the pillar, and becomes a handsome occasional table.

La table à lire, à écrire ou bien à diner, peut être élevée à chaque hauteur désirée; le haut en est fait à glisser du centre du pilier sur chaque côté de la couche; il est en outre divisé au centre de manière que chaque moitié peut changer sa position horizontale en une position perpendiculaire; il est muni des soutiens tenants le livre dans une telle position que l'invalidé, couché sur le dos, peut lire avec aise sans toucher le livre. Si la table ne sert pas à la lecture à côté de la couche ou du lit, le haut glisse vers le centre du pilier et elle devient une jolie pièce d'ameublement.

The patent portable equilibrium carrying chair.—By this chair, an invalid, however weighty or helpless, can be carried up or down stairs with perfect ease and safety. The chair always adjusting itself enables the two persons who carry to walk up and down stairs in the usual way, keeping themselves erect and their arms straight down, which avoids any strain upon their muscles. This chair folds up into the smallest possible space for travelling purposes.

La chaise patentée, portative et à équilibre.—Dans cette chaise, un invalidé, quel que soit sa pesanteur, peut dans l'état le plus faible, être transporté en bas ou en haut avec la plus parfaite sûreté; la chaise s'ajustant toujours au mouvement des personnes qui la portent, leur permet aussi de monter ou de descendre comme à l'ordinaire, de se tenir droit, les bras étendus, ce qui ne fatigue point les muscles. En se servant de la chaise en voyage, elle peut se plier dans la plus petite espace.

CLASS XVI.

PHILLIPS, W. P. & G., & PEARCE, 155 *New Bond-street, London, w.*

Engraved and Cut Glass, Lustres, and Lamps.

No. 1. A glass lustre, carrying 18 candles, composed of the finest crystal glass formed with air-lines twisted, and mounted with pendant glass ornaments, without the use of wires or pins—novel design.

No. 2. A frosted and engraved glass gaselier for 5 lights—Etruscan style.

No. 3. A painted china ditto ditto

No. 4. A silvered plate-glass plateau, very richly engraved, mounted with six raised glass dishes for fruit, and a centre dish for flowers and ferns. 2 glass Candelabra, and 8 Bouquet holders—Style Louis XVI.

No. 5. Two tall flower
glasses . . .

No. 6. Ditto ditto ditto

No. 7. Ditto ditto ditto
with Cornuco-
peïæ & centre
Tazza dish .

Unique specimens
of fine art glass
workmanship,
made at the works
of Messrs. Webb
and Sons.

No. 8. Two flower-stands in glass, with Pompeian tripod centre in ditto.

No. 9. Two glass candelabra with flower-holders, on richly engraved plate-glass stands, silvered—style Louis XVI.

No. 10. Two ditto ditto, with fern dish below.

No. 11. A plate-glass whatnot or trinket stand—new design.

No. 12. Two dessert dishes and supports, and four less ditto, of exquisite workmanship.

No. 13. Four less ditto.

No. 14. Six double magnum tankard jugs for claret cups, with twisted glass festoons, leaves, and nobs—unique.

No. 15. Two smaller ditto.

No. 16. Six water sets, richly engraved, various designs.

No. 17. Six magnum claret jugs, richly engraved with various designs, with convolvulus and wheat.

No. 18. Twelve quart ditto ditto.

No. 19. A claret jug and 2 decanters, very richly engraved.

No. 20. A magnum claret jug, a very fine specimen of engraving.

No. 21 to 30. Ten sets of patterns for table services, various designs.

No. 31. A large silvered plate-glass cross, very richly engraved with sacred emblems, on purple ground—'patented.'

No. 32. A ditto ditto on ruby ground, 'patented.'

No. 33. A ditto ditto, beautifully engraved with monogram and passion-flower—'patented.'

No. 34. Two smaller ditto ditto, engraved with sacred monogram, vine, corn, and ivy—'patented.'

No. 35. Two ditto ditto, engraved with sacred monogram and bright pearl bordering—'patented.'

No. 36. Two ditto ditto, engraved with sacred monogram only—'patented.'

No. 37. One silvered plate-glass cross, with sacred emblems very beautifully engraved on purple ground, XII. century—'patented.'

No. 38. Two Anglo-Venetian mirrors, very richly engraved on silvered-plate glass.

No. 39. Two ditto ditto, different designs.

No. 40. Two ditto ditto, ditto.

No. 41 to 50. Various specimens of flower-holders.

No. 51 to 60. Ditto, ditto, ditto, and fern stands.

CLASS XVII.

WEDGWOOD, JOSIAH, & SONS, *Etruria, Staffordshire.*

Earthenware in all its branches, viz. Cream Colour, Pearl White, Printed, Enamelled, Green Glaze, Rockingham, Majolica, Porous and Terra Cotta Wares; Stoneware; Chemical, Photographic, and Sanatory Wares; Parian Statuary, Jasper and Blue-and-White Bas-Relief Vases and Plaques; Black Basalt Vases and Statuary.

Received the Prize Medal in 1851 and 1862, and the Médaille de 1^{re} Classe at Paris, in 1865.

MESSRS. J. WEDGWOOD & SONS are manufacturers of earthenware. Not being manufacturers of china (which they gave up about 1815 in consequence of the press of orders at the peace), they confine their energies to the perfection of earthenware, to which they devote their whole attention. As regards the continental markets this is the branch of ceramic manufacture which alone exists to any extent. They have paid great attention to producing a light but durable class of goods to enter those countries where a heavy customs duty is still levied by weight. By this means they are able to meet the native manufacturers of several countries at an advantage, in spite of the expenses of transit and the custom-house. Their attention is not the less devoted to the requirements of the home market, in the production of a strong, clear ringing, rich glazed white ware. The patterns chosen are the newest in style and colour. Such are some now exhibited, designed by Dr. Dresser, both for dinner and toilet sets. In chemical wares, mortars, porous cells for batteries, as also in sanitary ware, so largely used in America as well as England, MESSRS. J. WEDGWOOD & SONS have always aimed at taking the lead by producing a regular and durable article at a moderate price.

In ornamental goods MESSRS. J. WEDGWOOD & SONS exhibit majolica dessert sets, sceaux and ornaments for the dinner and toilet table, also figures and vases by the best modellers and designers. In Parian statuary, MESSRS. J. WEDGWOOD & SONS produce a great variety of figures and busts modelled by Flaxman, Clodion, Woolner, Carrier, Wyon, and others. The same models are produced, along with a great number of vases and bas-reliefs, in black basalt, a hard material taking a fine sharp impression like bronze, and maintaining the proportions of the original model after baking, more accurately than Parian. It was invented a century ago by Josiah Wedgwood, F.R.S., and adapted to the production of vases painted

in encaustic colours, in imitation of the Greek campanian vases, then discovered by Sir Wm. Hamilton. This material is suited for the decoration of halls, libraries, and dining-rooms. MESSRS. J. WEDGWOOD & SONS still manufacture the ware called jasper, invented about 1766, by J. Wedgwood, F.R.S., and which now commonly goes by the name of Wedgwood ware. The perfection of this material is the sharpness of the relief, combined with the delicacy and smoothness of the surface. The pale blue sage green, and lilac grounds throw up in sharp outline the bas-reliefs laid on them. These are modelled from the antique mostly, by Flaxham, Pacetti, Hackwood, and many other modellers of the last century. This ware is represented in the Exhibition by a great variety of plaques, vases, sceaux and cameos; also by a novel feature in its application to dessert services, for which it is well adapted by the agreeable contrast it makes with glass and with silver. MESSRS. J. WEDGWOOD & SONS, wishing to show how beautiful a feature this material might be made in architectural decoration, exhibit a chimney piece fitted with jasper plaques. The idea was warmly taken up by Messrs. Nesfield & Shaw, of London, the architects, who adopted the style of the carved panelled chimney pieces found in old manor houses. The framework is of the finest picked alabaster. The plaques are of sage green jasper, with white figures and arabesques. In the seven panels above the fireplace are Flaxman's dancing girls, modelled from mural paintings at Pompeii. In the upper row of panels is the story of Achilles, by Pacetti, while on the jambs are female figures from the judgment of Paris. The whole is 7 or 8 feet high and as many wide.

MESSRS. WEDGWOOD have been fortunate in having the services of an artist of note in Mr. Lessore, whose facile drawing, boldness of outline, and great appreciation of colour may be judged of by the artist and connoisseur, in many works at the present Exhibition. He is the first man who has brought the free pencil of an artist to the decoration of ceramic wares.

CLASS XVIII.

NAIRN, MICHAEL, & CO., *Kirkcaldy, Scotland.*Floor-cloths—*Toiles Cirées pour Planchers.*
Wachseleinwand für Fussböden—*Incerati da Pavimenti.**Obtained the Honorary Certificate at the International Exhibition, London, 1862.*

M. NAIRN & Co.'s Manufactory, which is now the largest floor-cloth manufactory in the world, is situated at Kirkcaldy, near Leith, having direct communication to all the principal ports in Great Britain.

Their goods are of the first quality, and are manufactured in sizes from $\frac{1}{2}$ yd. to 8 yds. wide by 12, 15, 20 and 25 yds. long, without seam. They are made in all the styles of mosaics, oaks, marbles, chintzes, encaustic tilings, Turkey carpetings, parquetry, &c., to suit the requirements of different countries.

M. NAIRN & Co. have pleasure in referring to their exhibit in Class 18, as specimen of style and execution; particular notice is requested to the finish, which, by their mode of printing, presents a solid surface of paint, affording a superior wearing surface to the old system of open printing (which only partially covers the ground) and also imparting to the designs a clearness of definition and a depth of tone impossible of attainment by the old method.

Ont obtenu le Certificat Honoraire à l'Exposition Internationale de Londres, en 1862.

La Manufacture de M. NAIRN ET CIE., actuellement la plus importante manufacture de toiles cirées pour planchers existant au monde, est située à Kirkcaldy, près Leith, et se trouve en communication directe avec tous les principaux ports de la Grande-Bretagne.

Leurs produits sont de première qualité, et se fabriquent en grandeurs variant de $\frac{1}{2}$ yard—45,72 m.—à 8 yards—7,32 m.—de large sur 12, 15, 20 et 25 yards—10,98 m., 13,71 m., 18,28 m., et 22,85 m.—de long, sans couture. Ils comprennent tous les styles de mosaïques, imitations de bois de chêne et de marbres, perses, carreaux à l'encaustique, tapis de Turquie, parquetterie, etc. etc., afin de s'adapter aux besoins de tous les pays.

M. NAIRN ET CIE. se plaisent à renvoyer le public à leur exposition, Classe 18, comme spécimen de style et d'exécution; on est prié de remarquer surtout le fini de ces produits, fini dû à leur mode d'impression, qui offre une surface solide de peinture, donnant ainsi une surface de résistance bien supérieure à celle obtenue par l'ancien système d'impression à jour, et qui communique en outre aux dessins une netteté de contours et une profondeur de ton impossibles à obtenir par la vieille

Erlangten das ehrenvolle Zeugniß auf der internationalen Industrie-Ausstellung, London, 1862.

M. NAIRN & Co.'s Fabrik, welche nun die grösste Wachsfussdecken-Fabrik der Welt ist, findet sich zu Kirkcaldy, nahe bei Leith, und hat directe Verbindung mit allen den hauptsächlichsten Häfen in Grossbritannien.

Ihre Güter sind von der ersten Qualität und werden in Grössen von $\frac{1}{2}$ Yard bis 8 Yard Weite und 12, 15, 20 und 25 Yard Länge, ohne Naht, fabricirt. Dieselben werden in allen den Stilen von Mosaik, Eiche, Marmor, Zitz, encaustischen Ziegeln, Türkischen Teppichen, Parquetterie u. s. w., je nach den Bedürfnissen der verschiedenen Länder gemacht.

M. NAIRN & Co. beehren sich, auf ihre Darstellung in Klasse 18 als Probe des Stiles und der Ausführung zu verweisen; sie bitten um besondere Beachtung der Appretur, welche, in Folge der Druckmethode, eine dichte Farbenoberfläche darbietet, somit eine bessere Oberfläche zum Tragen als die alte Methode des offenen Drucks (welche nur theilweise den Grund bedeckt) hat und ebenso den Dessins eine Klarheit der Bestimmung und eine Tiefe des Tones giebt, welche durch die alte Methode zu erlangen unmöglich waren.

Ripportarono Menzione Onorevole all'Esposizione Internazionale di Londra, 1862.

La Fabbrica dei Sigri. NAIRN E CIA., che è adesso la più gran fabbrica di incerati da pavimenti nel mondo, è situata a Kirkcaldy, presso Leith, ed ha comunicazione diretta con tutti i porti principali della Gran Bretagna.

Le loro merci sono di prima qualità, e sono fabbricate in pezze alte da $\frac{1}{2}$ fino 8 yarde e lunghe da 12, 15, 20 fino a 25 yarde senza cucitura. Sono di ogni stile, a mosaico, a querce, a marmi, a indiane, a pianelle ad encaustico, a tappeti turchi, a pavimento in legno intarsiato, ecc., per soddisfare alle richieste dei diversi paesi.

I Sigri. NAIRN E CIA. hanno il piacere di riferire agli oggetti da loro esposti alla Classe 18, come saggi di stile e di esecuzione, e invitano speciale attenzione alla finezza del loro lavoro, che pel loro modo di stampatura presenta una superficie solida di colore, che offre una superficie durevole, superiore a quella del vecchio sistema di stampa porosa (che cuopre solo parzialmente il fondo), e che dà anche ai disegni una chiarezza di definizione ed una forza di intonazione, impossibile ad ottenersi col vecchio sistema.

WILKINSON, JOHN, SON, & CO., *St. Helen's Mills, Leeds, England**Established 1839.*

Original Manufacturers of Felt Carpeting.

Premiers Fabricants de Tapis de Feutre.

Die ursprünglichen Fabricanten von Filz-Fussdecken.

*Fabbricanti originali dei Tappeti in Feltro.**Warehouses.*53 & 54 Aldermanbury, London, E.C.;
13 Rook-street, Manchester;18 Rue du Mail, Paris;
42 Rue Zerezo, Station du Nord, Bruxelles.*Prize Medal, International Exhibition, 1851.**The only Prize Medal, International Exhibition, 1862.*

See 'Jurors' Award Book,' page 265:—

‘Printed woollen carpets, especially for a great variety of choice designs, good workmanship and cheapness.’

Prize Medal, Yorkshire Industrial Exhibition, 1866.

These carpets are made and sold in all qualities and prices, from 10d. per yard, for 30 in. in width, up to 3s. 6d. per yard for 52 inches. A large assortment of designs always on hand, at 18 Rue du Mail, Paris, and their other branch houses, as above.

Manufacturers also of fine cloth for boots, &c. &c., saddle cloths for riding, and numnahs, or cavalry blankets, as supplied to the British cavalry regiments at home and abroad; also, all descriptions of felt manufacture.

*Médaille à l'Exposition Internationale de 1851.**La seule Médaille décernée à l'Exposition Internationale de 1862.*

Voir le 'Régistre des Récompenses décernées par le Jury,' page 265:—

‘Tapis de laine imprimés, spécialement pour leur grande variété de dessins de choix, l'excellence de la main d'œuvre et le bon marché.’

Médaille à l'Exposition Industrielle du Yorkshire, en 1866.

Ces tapis sont fabriqués en toutes qualités et vendus à tous prix, depuis 1 franc le yard—91,43c.—sur 30 pouces—76,20c.—de large jusqu'à 4 fr. 35 ces. le yard—52 pouces—1,32 m.—de large. Un assortiment considérable de dessins se trouve toujours à leur maison, 18 Rue du Mail, à Paris, ainsi que dans leurs autres maisons succursales aux adresses ci-dessus.

Fabriquent également des étoffes fines pour bottines, etc., etc., housses pour selles, numnahs, ou couvertures de cheval pour la cavalerie, telles qu'elles sont fournies aux régiments de cavalerie anglaise dans le Royaume-Uni et ses dépendances; enfin toutes espèces de produits feutrés.

*Preis-Medaille, internationale Industrie-Ausstellung, 1851.**Die einzige Preis-Medaille, internationale Industrie-Ausstellung, 1862.*

Siehe 'Jurors' Award Book,' Seite 265:—

‘Gedruckte wollene Teppiche, besonders für eine grosse Verschiedenheit der ausgewähltesten Dessins, gute Arbeit und Billigkeit.’

Preis-Medaille, Yorkshire-Industrie-Ausstellung, 1866.

Diese Teppiche werden gemacht und verkauft in allen Qualitäten und zu allen Preisen, von 1 Sgr. per Yard, für 30 Zoll in Weite, bis zu 1 Thlr. 5 Sgr. per Yard, für 52 Zoll. Eine grosse Auswahl von Dessins ist fortwährend vorrätig in 18 Rue du Mail, Paris, und in ihren andern Zweighäusern, wie oben.

Ebenso Fabricanten von feinem Tuch für Schuhe u. s. w. u. s. w., Satteltuch zum Reiten und Numnahs oder Cavallerie-Decken, wie sie für die Britischen Cavallerie-Regimenter hier und in den Colonien geliefert werden. Ebenso alle Beschreibungen von Filz-Manufacturaaren.

*Medaglia dell' Esposizione Internazionale del 1851.**Unica Medaglia dell' Esposizione Internazionale del 1862.*

Vedasi 'Libro delle Aggiudicazioni dei Giurati,' pagina 265:—

‘Tappeti in lana stampati, specialmente per una gran varietà di scelti disegni, buona fabbricazione, ed economia.’

Medaglia dell' Esposizione d'Industria del Yorkshire, 1866.

Questi tappeti sono fatti e venduti in tutte le qualità e prezzi, da 10 pence per yarda, per larghezza di 30 pollici, fino a 3½ scellini per yarda per larghezza di 52 pollici. Un grande assortimento di diversi disegni sempre alla mano al No. 18 Rue du Mail, Parigi, ed alle altre succursali, come sopra.

Fabbricanti anche di panni fini per stivaletti, ecc., gualdrappe per l'equitazione, e numnahs, ossia copertine da cavalleria come quelle fornite ai reggimenti di cavalleria britannica tanto in paese come all'estero; ed anche ogni genere di manifattura in feltro.

CLASS XXIII.

DESCRIPTIVE CATALOGUE OF HOROLOGICAL INSTRUMENTS
CATALOGUE DESCRIPTIF D'INSTRUMENTS D'HORLOGERIE.

Exhibited by M. F. DENT & CO., 33 & 34 COCKSPUR-STREET, CHARING-CROSS, LONDON.

Makers and Exhibitors of Chronometers, Watches, and Clocks.

Fabricants et Expositeurs de Chronomètres, Montres et Horloges.

N.B.—The workmanship and materials of the articles here exhibited are of the same quality and degree of excellence as all others of the same classes supplied to purchasers in the ordinary course of business.

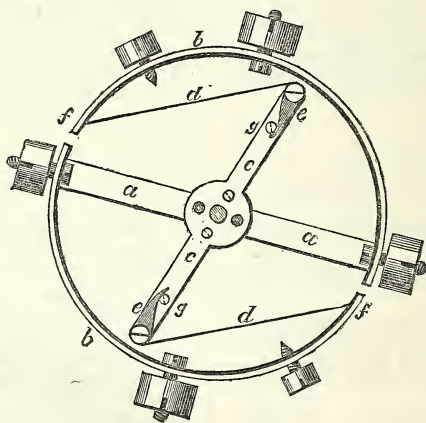
N.B.—*La main-d'œuvre et les matériaux des articles ci-exposés sont des mêmes qualité et degré d'excellence que tous autres de même classe fournis aux acheteurs dans le cours ordinaire des affaires.*

MARINE CHRONOMETERS.

1. A MARINE CHRONOMETER, fitted with a new auxiliary compensation balance invented by M. F. DENT. The construction of this balance is illustrated by the annexed drawing. The supporting arms, *a a*, the compound laminated rims, *b b*, and the timing and compensation screws or weights, are precisely the same as corresponding parts of an ordinary compensation balance. It is well known that such a balance, if adjusted so as to compensate satisfactorily for the temperature error, at two points of the thermometric scale 30° to 40°

CHRONOMÈTRES DE MARINE.

1. CHRONOMÈTRE DE MARINE muni, d'un nouveau balancier à compensation auxiliaire inventé par M. F. DENT. La construction de ce balancier est illustrée par le dessin ci-joint. Les bras de support, *a a*, les cercles à lames bimétalliques, *b b*, et les vis ou poids de compensation et de réglage, sont précisément les mêmes que les parties correspondantes d'un balancier ordinaire à compensation. Or, il est bien connu qu'un tel balancier, s'il est ajusté de façon à effectuer une compensation satisfaisante de l'erreur de température, à deux



apart, fails more or less in temperatures beyond that range, the error increasing at a faster rate than the temperature varies, and always in the losing direction; the cause being that the change of the elastic force of the balance spring, and the compensating change of the moment of inertia of the balance, differ in their rates of variation.

If such a balance, therefore, be adjusted as accurately as possible for a middle and a high temperature, say for 60° and 95° Fahr., the

points of l'échelle thermométrique, 30° à 40° d'étendue Fahr.— 0° à 5° centigrade—fait défaut plus ou moins dans les températures dépassant ces points, l'erreur croissant dans une proportion plus rapide que ne varie la température, et toujours en retard; la cause en étant que le changement dans l'élasticité du ressort du balancier, et le changement de compensation dans le moment d'inertie du balancier, diffèrent dans leurs vitesses de variation.

Qu'un semblable balancier, par conséquent, soit ajusté avec toute la précision possible pour une température moyenne et haute, disons pour

chronometer will lose upon its rate in all temperatures below 60°, the loss increasing at a faster rate than the temperature diminishes. In the balance here exhibited, this error is compensated for, by the two auxiliary springs, *d d*, which by a gentle pressure upon two pins *f f*, placed near the free ends of the laminated rims, restrain their outward expansion, and thereby prevent that too great increase of the moment of inertia of the balance, which is the cause of the defect of compensation under the preceding circumstances. The fixed ends of the springs are carried at *e e*, by a pair of arms *c c*, firmly secured to the principal arms *a a*. The springs are adjusted to come into action only when the primary compensation begins to fail, and their influence increases gradually as the temperature falls. It is found advantageous to thicken the springs a little towards the middle of their length; they are also made of considerable length, and to stand in the direction shown, in order that their effect upon the balance shall increase or diminish as gradually as possible; by these expedients also injurious friction between the free ends of the springs and the pins is avoided. Their adjustment is facilitated by the use of two small screws with tapered heads, *g g*, which press against the feet of the springs, and act as inclined planes in making very small changes in their positions. This chronometer is fitted with Mr. Hammersley's 'tria in uno' balance spring.

The chronometer here exhibited is only the second which has been fitted with this kind of auxiliary compensation. The first was tried last year in the public competitive trials at Greenwich Observatory. It stood fourth in the order of merit in the published official report of the Astronomer Royal, and was purchased by the Government, on his recommendation, at an honorary price.

The published official abstract of its rate was as follows:—

Least weekly sum of		
daily rates during	11.5	seconds losing
29 weeks . . .		
Greatest . . .	1.1	” ”
	—	
Difference between		
the greatest and	10.4	” ”
the least . . .		
	—	

Greatest difference between two successive weeks, 5.8 seconds.

There were 56 chronometers on competitive trial, the average results shown by the better chronometers were unusually good, and the temperature during the 29 weeks' trial varied from 31° to 101° Fahr.

Another chronometer, by the present exhibitors, fitted with a new experimental balance

60° et 95° Fahr.—15° à 35° centigrade—le chronomètre retardera dans toutes températures au-dessous de 60°, la perte augmentant dans une proportion plus rapide que la température ne diminue. Dans le balancier ci-exposé, cette erreur se compense au moyen des deux ressorts auxiliaires, *d d*, qui par une pression douce sur deux goupilles *f f*, placées près des extrémités libres des cercles ou lames du balancier, restreignent leur expansion en avant, et préviennent ainsi le trop grand accroissement du moment d'inertie du balancier, ce qui est la cause du défaut de compensation dans les circonstances précédentes. Les extrémités fixes des ressorts sont portées en *e e*, par deux bras *c c*, fermement assujettis aux bras principaux *a a*. Les ressorts sont ajustés de façon à n'agir que lorsque la compensation ordinaire commence à faire défaut, et leur action augmente graduellement à mesure que la température baisse. Il a été trouvé avantageux d'épaissir un peu les ressorts vers le milieu de leur longueur; ils sont aussi d'une longueur considérable et disposés de façon à se maintenir dans la direction que montre le dessin, afin que leur effet sur le balancier s'accroisse ou diminue aussi graduellement que possible; ces dispositions préviennent aussi un frottement nuisible entre les extrémités libres des ressorts et des goupilles. Leur ajustement est facilité par l'emploi de deux petites vis à têtes coniques, *g g*, qui pressent contre les pieds des ressorts, et agissent comme des plans inclinés en opérant de très-légers changements dans leurs positions. Ce chronomètre est muni du ressort de balancier 'tria in uno' de M. Hammersley.

Le chronomètre ici exposé est seulement le second qui ait été muni de cette espèce de compensation auxiliaire. Le premier a été éprouvé l'an dernier dans les concours publics qui eurent lieu à l'Observatoire de Greenwich. Il occupa la quatrième place dans l'ordre de mérite dans le rapport officiel publié de l'Astronome Royal, et fut acheté par le Gouvernement, sur sa recommandation, à un prix honoraire.

L'extrait officiel publié de sa marche est comme suit:—

Total hebdomadaire, la plus		
petite des différences journalières pendant 29 semaines . . .	11.5	secondes de perte
La plus grande . . .	1.1	” ”
	—	
Différence entre le plus et le moins . . .	10.4	” ”
	—	

Différence la plus grande entre deux semaines successives, 5.8 seconds.

Il y avait 56 chronomètres participant à ce concours; les résultats moyens montrés par les meilleurs furent exceptionnellement bons, et la température varia pendant les 29 semaines que durèrent les épreuves de 31° à 101° Fahr.

Un autre chronomètre, fabriqué par les présents exposants, muni d'un nouveau balancier

entirely different from the one here described, took part in the same trial, but failed to give the expected results.

2. A MARINE CHRONOMETER, fitted with DENT's well-known 'staple balance.'

The use of this balance during the past 24 years, and its successful application to several hundreds of marine chronometers and chronometer clocks, have established it as one of the most successful and reliable inventions, for correcting the 'secondary error' of compensation.

3. A MARINE CHRONOMETER, fitted with the balance invented some years ago by Mr. John Hartnup, the Astronomer at the Public Observatory at Liverpool. This balance, although difficult to manufacture and adjust, has given good results in extreme variations of temperature, when made and applied with the requisite skill.

4. A MARINE CHRONOMETER, with a new kind of flat-rimmed balance recently invented by M. F. DENT, with a view to perfect compensation in extreme variations of temperature.

The principle of its mode of action is the same as that of DENT's 'staple balance' (see No. 2), the compensating weights describing, in their change of position, a curved path, in the plane of the axis of the balance, approximating to a circular arc. Compared with the ordinary balance, the moment of inertia of this new balance will diminish more quickly as the temperature rises above, and will increase more slowly as it falls below, any given mean. It is thought that another defect, to which all balances known to the present exhibitors are more or less liable, will be mitigated: that is, the tendency which their compound laminæ have to 'set,' when exposed continuously for a considerable time to extremes of temperature, owing to their limits of elasticity being over-passed. This is expected to be mitigated by the form of the balance here exhibited, permitting the laminæ to be made longer and thicker than usual.

Whether these anticipations are to be realised has yet to be proved by the results of accurate and long-continued trials, now in progress.

5. A SELECTION OF COMPENSATION BALANCES of varied construction, including an example of each of those fitted to Nos. 1, 2, 3, and 4.

POCKET CHRONOMETERS.

6. A POCKET CHRONOMETER, in gold hunting case, with fusee train, keyless winding, and winding indicator. Attention is invited to this watch as being fitted with Hammersley's 'tria in uno' balance spring, which has been perfected within the last few years, and when

d'expérimentation, mais entièrement différent de celui qui vient d'être décrit, participa à ce même concours, mais ne donna point les résultats attendus.

2. CHRONOMÈTRE DE MARINE, muni du 'staple balance,' bien connu, de DENT.

L'usage de ce balancier durant les dernières 24 années, et son heureuse application à plusieurs centaines de chronomètres de marine et horloges chronométriques, l'ont posé comme étant une des inventions les plus heureuses et les plus sûres pour corriger l'erreur secondaire de compensation.

3. CHRONOMÈTRE DE MARINE, muni du balancier inventé il y a quelques années par M. John Hartnup, Astronome de l'Observatoire Public de Liverpool. Ce balancier, quoique difficile à fabriquer et à ajuster, a donné de bons résultats dans des variations extrêmes de température, alors qu'il est fait et appliqué avec l'habileté nécessaire.

4. CHRONOMÈTRE DE MARINE, avec une nouvelle espèce de balancier à cercles plats, récemment inventé par M. F. DENT dans le but d'une compensation plus parfaite dans les variations extrêmes de température.

Le principe de son mode d'action est le même que celui du 'staple balance' de DENT (voir No. 2), les poids de compensation décrivant, dans leur changement de position, une courbe dans le plan de l'axe du balancier, approchant d'un arc de cercle. Comparé au balancier ordinaire, le moment d'inertie de ce nouveau balancier diminuera plus rapidement à mesure que la température s'élèvera au-dessus, et s'accroîtra plus lentement à mesure qu'elle s'abaissera au-dessous, d'une moyenne donnée. On pense aussi qu'un autre défaut, auquel tous les balanciers connus aux présents exposants sont plus ou moins sujets, sera amoindri dans ce balancier: c'est-à-dire, la tendance qu'ont leurs lames bi-métalliques à rester forcées quand elles sont exposées continuellement durant un laps de temps considérable à des extrêmes de température, parce que leurs limites d'élasticité sont dépassées. On espère que par la forme du balancier en question, ici exposé, permettant de faire les lames plus longues et plus épaisses que d'habitude, ce défaut sera ainsi mitigé.

Les résultats de longues et exactes épreuves, maintenant en train de se faire, prouveront si ces anticipations doivent se réaliser ou non.

5. CHOIX DE BALANCIERS À COMPENSATION de diverses constructions, y compris un exemple de chacun de ceux adaptés aux Nos. 1, 2, 3 et 4.

CHRONOMÈTRES DE POCHE.

6. CHRONOMÈTRE DE POCHE, à boîte de chasse en or, avec chaîne et fusée, remontoir sans clef, avec indicateur. On appelle l'attention sur cette montre comme étant munie du ressort de balancier 'tria in uno' de Hammersley, perfectionné dans ces dernières

properly made and applied is believed to possess important advantages, over both the ordinary cylindrical spring, or helix, usually applied to chronometers, and the flat spiral.

The 'tria in uno' spring has its middle portion coiled in a cylindrical or helical form, with both ends formed into two flat spirals, approaching the centre of motion.

A more detailed description of this spring will be found in 'M. F. DENT's Exhibition Pamphlet, 1867.'

7. A POCKET CHRONOMETER, in gold hunting case, with fusee train, keyless winding, and winding indicator. This chronometer is fitted with the 'duo in uno' balance spring, a form which partakes to a great extent of the advantages attributed to the 'tria in uno,' from which it differs in having the cylindrical coils combined with flat spiral coils at one end only, instead of at both ends. It is an easier spring to make than the 'tria in uno.'

8. A POCKET CHRONOMETER, with fusee train and winding indicator. It is fitted with the 'double flat spiral' balance spring, with a view to combine perfect adjustments with flatness, to meet the wishes of purchasers who desire a flat chronometer watch, without sacrificing accurate time-keeping qualities. This spring is considered to afford great facilities for the adjustment, both of isochronism and the positions, compared with the ordinary flat spiral.

9. A CHRONOMETER CHRONOGRAPH, in gold case, with open face. This chronograph has a lever movement controlled by its own escapement without any connection whatever with the movement or escapement of the chronometer. This combination, now introduced by M. F. DENT & Co., differs from all independent seconds or other kinds of observation watches known to them, and is submitted as possessing the accuracy of the best chronometer of its size, combined with an instrument for exhibiting, with minute precision, the time of commencement, duration, and termination of any event or circumstance, such as a race, the flight of a shot, the revolutions of machinery, the rate of the pulse, astronomical observations, &c. &c.

10. A SELECTION OF POCKET CHRONOMETERS of ordinary construction.

11. A SELECTION OF BALANCE SPRINGS, including the 'tria in uno,' 'duo in uno,' 'double flat spiral,' cylindrical and ordinary flat spirals.

WATCHES.

12. A GOLD 'TACT' WATCH, for the use of persons who are blind, and for other persons who desire to ascertain the time in the dark, and prefer a watch of this kind to a repeater.

années, et qu'on croit posséder, quand il est convenablement fabriqué et appliqué, d'importants avantages aussi bien sur le ressort cylindrique ordinaire, ou hélice, habituellement appliqué aux chronomètres, que sur le spiral plat.

Le ressort 'tria in uno,' a sa partie du milieu roulée en forme cylindrique ou hélicoïdale, avec les deux extrémités formant deux spiraux plats, s'approchant du centre du mouvement.

Une description plus détaillée de ce ressort se trouvera dans la brochure de l'Exposition de M. F. DENT, 1867.

7. CHRONOMÈTRE DE POCHE, à boîte de chasse en or, avec chaîne et fusée, remontoir avec indicateur. Ce chronomètre est muni du ressort de balancier 'duo in uno,' forme qui possède une grande partie des avantages attribués à celui dit 'tria in uno,' dont il diffère en ce qu'il n'a ses enroulements cylindriques combinés avec les spiraux plats qu'à une seule extrémité au lieu de l'avoir aux deux. Ce ressort est plus facile à fabriquer que le 'tria in uno.'

8. CHRONOMÈTRE DE POCHE, avec chaîne et fusée et indicateur. Muni du ressort de balancier en double spiral plat, à l'effet de combiner la perfection des ajustements avec le minimum d'épaisseur, pour satisfaire aux goûts des acheteurs qui veulent un chronomètre de poche plat sans sacrifier pour cela les qualités de précision. On considère que ce ressort fournit de grandes facilités pour l'ajustement, tant de l'isochronisme que des positions, en comparaison du spiral plat ordinaire.

9. CHRONOMÈTRE À CHRONOGRAPHIE, à boîte d'or et à verre. Ce chronographe a un mouvement contrôlé par son propre échappement (à ancre), sans aucun rapport quelconque avec le mouvement ou échappement du chronomètre. Cette combinaison, maintenant introduite par M. F. DENT et C^{ie}, diffère de toutes montres à secondes indépendantes ou autres, pour observation, connues d'eux, et on considère qu'elle possède l'exactitude du meilleur chronomètre de sa dimension, combinée avec un instrument destiné à indiquer avec une précision minutieuse le temps de commencement, de durée et de fin, de tout événement ou circonstance quelconque, tel qu'une course de chevaux, la vitesse d'un boulet, les révolutions d'une machine, la vitesse du pouls, des observations astronomiques, etc. etc.

10. CHOIX DE CHRONOMÈTRES DE POCHE de construction ordinaire.

11. CHOIX DE RESSORTS DE BALANCIERS, comprenant le 'tria in uno,' le 'duo in uno,' le spiral double plat, le spiral cylindrique et le spiral ordinaire.

MONTRES.

12. UNE MONTRE À 'TACT' EN OR, à l'usage des personnes aveugles, ou autres qui désirent s'assurer de l'heure dans l'obscurité, et préfèrent une montre de cette espèce à une

A peculiar advantage of the watch here exhibited, is that it has a safety arrangement for preventing damage, in the event of too much pressure being applied to the external hand.

The whole of this 'Tact' arrangement is the well-known invention of the celebrated Brequet.

13. A GOLD MINUTE REPEATER, of the best construction usual in England. This watch has a fusee train, keyless mechanism, and lever escapement, of English construction; as is usual in such watches, the repeating work is manufactured in Switzerland, and the English movement mechanism, &c., is adapted to it in the best possible manner.

14. A GOLD ENGLISH REPEATER.—This repeater is of entirely English manufacture, by M. F. DENT & Co., and is submitted as having a better arrangement of the repeating mechanism than the foreign work of the same kind, being much better adapted to the conditions of a fusee train with keyless mechanism. It is so contrived as to combine economy of space with the most substantial and accurate workmanship.

15. SMALL-SIZED LADIES' GOLD WATCHES, with fusee trains, lever escapements, and compensated balances. These are submitted as exhibiting, in a small compass, a combination capable of realising the most accurate time-keeping results, with durability in wear, which can be obtained in watches of so small a size. This combination of qualities cannot be had without the fusee train, if the lever escapement is used, and no other escapement is so well adapted for general wear.

16. GOLD WATCH WITH THE RESILIENT LEVER ESCAPEMENT.—This escapement is the invention of Mr. J. F. Cole, and is considered by many as one of the most perfect forms assumed by the lever escapement. Its advantage lies in the avoidance of the 'banking error.'

17. A GOLD INDEPENDENT SECONDS WATCH, with fusee train.

18. A SELECTION OF LADIES' ORNAMENTAL WATCHES, with decorations in jewels and enamelling, with châtelaïnes to match.

19. SPECIMENS OF WATCH ORNAMENTATION.

20. TWO SILVER LEVER COMPENSATED WATCHES, submitted as excellent instruments for the use of travellers on overland expeditions, and as better adapted to the contingencies of rough wear than pocket chronometers.

CLOCKS.

21. A WORKING MODEL OF A TURRET CLOCK MOVEMENT.—M. F. DENT & Co. exhibit this as a model of the most accurate and serviceable kind of large clock which can be made at the

montre à répétition. Un avantage particulier qu'offre la montre ici exposée consiste en ce qu'elle est munie d'une disposition de sûreté afin de la préserver de tout dommage au cas où une pression trop forte serait appliquée à l'aiguille extérieure.

Toute l'invention de cette montre à 'Tact' est due au célèbre Brequet.

13. MONTRE À RÉPÉTITION À MINUTES, de la meilleure construction habituelle en Angleterre. Cette montre est à fusée et à remontoir, et échappement à ancre, de construction anglaise; ainsi qu'il est d'usage pour les montres de cette espèce, les mouvements de répétition ont été fabriqués en Suisse, et le mécanisme anglais y est adapté de la meilleure manière possible.

14. UNE MONTRE À RÉPÉTITION ANGLAISE.—Entièrement de fabrique anglaise, par M. F. DENT et C^{ie}., et offerte comme ayant une meilleure disposition du mécanisme à répétition que le travail étranger de la même espèce, étant mieux adaptée aux conditions d'une chaîne et fusée avec remontoir sans clef. Cette montre est conçue de façon à combiner l'économie d'espace avec la main-d'œuvre la plus solide et la plus soignée.

15. MONTRES DE DAMES, EN OR DE PETITE DIMENSION, avec chaîne et fusée, échappement à ancre, et balanciers compensés. Elles sont soumises au public comme exhibant, sous une forme très-petite, une combinaison capable de donner les résultats de précision les plus exacts, ainsi que la plus grande durée qu'il soit possible d'obtenir dans des montres d'une dimension aussi minime. Cette combinaison de qualités ne saurait s'obtenir sans la chaîne et fusée, si on se sert de l'échappement à ancre, et nul autre n'est aussi bien adapté à l'usage général.

16. MONTRE EN OR AVEC L'ÉCHAPPEMENT RESILIENT.—Cet échappement est de l'invention de M. J. F. Cole, et est considéré par nombre de personnes comme une des formes les plus parfaites qu'ait jamais pris l'échappement à ancre. Ses avantages consistent dans ce qu'ils évitent les erreurs causées par les reballements.

17. MONTRE EN OR À SECONDES INDEPENDANTES, avec chaîne et fusée.

18. CHOIX DE MONTRES DE DAMES, DE LUXE, ornées de pierreries et d'émaux, avec châtelaïnes assorties.

19. SPÉCIMENS D'ORNEMENTATION POUR MONTRES.

20. DEUX MONTRES EN ARGENT À ÉCHAPPEMENT À ANCRE ET BALANCIERS COMPENSATEURS, soumises au public comme étant d'excellents instruments pour l'usage de voyageurs dans des expéditions sur terre, et mieux adaptés aux exigences d'un usage rude que les chronomètres de poche.

HORLOGES.

21. MODÈLE FONCTIONNANT D'UN MOUVEMENT D'HORLOGE DE BEFFROI OU CLOCHER.—M. F. DENT et C^{ie}. l'exposent comme modèle de l'espèce la plus précise et la plus utile des

present day. It is fitted with the now well-known 'double three-legged gravity escapement,' the invention of an amateur of high scientific attainments. It has also a gravity remontoir of an improved construction, adjusted in the present model so as to let off the hands at intervals of 15 seconds, but in its application to turret clocks the interval would be 30 seconds. This combination permits the construction of large turret clocks, capable of keeping a close rate with an accuracy equal to that of the best observatory regulator, and will moreover maintain that rate for a much longer time than the best clock controlled by any other known escapement whose perfect condition is dependent upon oil.

In 'M. F. DENT's Exhibition Pamphlet, 1867,' will be found a drawing of the above escapement with a detailed description.

22. AN OBSERVATORY CLOCK, OR REGULATOR. This clock has the mercurial pendulum, and is fitted with an important modification of the gravity escapement, recently invented by Dr. James Clark, with the object of greatly diminishing the friction of unlocking the escapement.

For a drawing and full description of this beautiful and ingenious invention, see 'M. F. DENT's Exhibition Pamphlet, 1867.'

23. AN OBSERVATORY CLOCK, OR REGULATOR, fitted with Graham's dead escapement and mercurial pendulum, in mahogany frame with plate glass.

24. A BRACKET CLOCK, striking hours and quarters upon bell springs. It has a half-second mercurial pendulum and gravity escapement.

25. A DRAWING-ROOM OR LIBRARY CLOCK, fitted with the chronometer escapement, and with DENT's 'staple balance' compensated and adjusted for extreme variations of temperature. This clock chimes the quarters upon eight bells, has a perpetual calendar of the most perfect construction, exhibiting the bissextile, the phases of the moon, and the equation of time. It has a finely finished case of gilt bronze and plate glass. This perpetual calendar is a French invention.

26. A BRACKET CLOCK, in ebony case, striking chimes upon bell springs, with jewelled escapement and silver dial.

27, 28, 29, 30, and 31. A SELECTION OF CHRONOMETER AND LEVER CLOCKS for the library and drawing room, in bronze and gilt bronze cases.

Some ornamental time-pieces.

grandes horloges qui puisse se fabriquer actuellement. Il est muni du 'double three-legged gravity escapement,' maintenant bien connu, et l'invention d'un amateur de haute capacité scientifique. Il a aussi un remontoir de gravité d'une construction perfectionnée, ajusté dans le présent modèle, de façon à laisser échapper les aiguilles à des intervalles de 15 secondes ; mais dans son application aux horloges de beffroi cet intervalle serait de 30 secondes. Cette combinaison permet la construction d'horloges de ce genre d'une grande dimension, capables de maintenir une marche exacte avec une précision égale à celle du meilleur régulateur d'observatoire, et en outre beaucoup plus longtemps que la meilleure horloge contrôlée par tout autre échappement connu dont la parfaite condition dépend de l'huile.

Dans la brochure d'Exposition de M. F. DENT on trouvera un dessin de l'échappement ci-dessus avec description détaillée.

22. HORLOGE D'OBSERVATOIRE, OU RÉGULATEUR.—Cette horloge est munie du pendule à mercure, et renferme une importante modification de l'échappement de gravité, récemment inventé par le Dr. James Clark, dans le but de grandement diminuer le frottement de l'échappement de dégagement.

Pour dessin et description entière de cette belle et ingénieuse invention, Voir la brochure d'Exposition de M. F. DENT, 1867.

23. HORLOGE D'OBSERVATOIRE, OU RÉGULATEUR, munie de l'échappement à repos et du pendule à mercure de Graham avec boîte d'acajou.

24. HORLOGE DE CONSOLE sonnant les heures et les quarts sur ressorts-timbres.

Elle a un pendule à mercure à demi-secondes, et échappement de gravité.

25. UNE HORLOGE DE SALON OU DE BIBLIOTHÈQUE, munie de l'échappement de chronomètre, et avec le 'staple-balance' de DENT, compensé et ajusté pour les variations extrêmes de température. Cette horloge sonne les heures sur huit cloches, a un calendrier perpétuel de la construction la plus parfaite, montrant les années bissextiles, les phases de la lune, et l'équation du temps. Dans une boîte en bronze doré, d'un beau fini et glace. Ce calendrier perpétuel est une invention française.

26. UNE HORLOGE DE CONSOLE, boîte en ébène, sonnant des carillons sur ressorts-timbres avec échappement à pierres fines et cadran en argent.

27, 28, 29, 30 et 31. CHOIX DE CHRONOMÈRES ET HORLOGES À LEVIER pour bibliothèques et salons, en bronze et bronze doré.

Quelques pendules de luxe.

M. F. DENT & CO., Chronometer, Watch and Clock Makers to the Queen and the Principal Courts of Europe, 33 & 34 COCKSPUR-STREET, CHARING-CROSS, LONDON, s.w.

M. F. DENT ET CIE., Fabricants de Chronomètres, Montres et Horloges, Fournisseurs de la Reine et des Principales Cours de l'Europe, 33 et 34 COCKSPUR-STREET, CHARING-CROSS, LONDRES, s.w.

FRODSHAM, CHARLES, 84 Strand, London, W.C.

Chronometer, Watch and Clock Maker, by special appointment to Her Majesty the Queen, and their Royal Highnesses the Prince and Princess of Wales.

Successor to ARNOLD, A.D. 1843; Successor to VULLIAMY, A.D. 1854.

Astronomical and Turret Clocks, and Watches.

Horloges Astronomiques et de Beffrois, et Montres.

Astronomische, Thurm- und Taschenuhren.

Orologi Astronomici e da Campanile, Oriuoli.

Juror and Reporter at the Great Exhibition of 1862.

Awarded the Gold Medal of Honour at the Paris Exhibition of 1855; Gold Medal (Præmia Digno) from the Emperor of Russia, 1860.

A obtenu la Médaille d'Honneur en Or de l'Exposition de Paris de 1855; Médaille d'Or (Præmia Digno) de l'Empereur de Russie, 1860.

Erlangte die goldene Ehren-Medaille auf der Pariser Ausstellung von 1855; die goldene Medaille (Præmio Digno) von dem Kaiser von Russland, 1860.

Aggiudicatario della Medaglia Aurea d'Onore dell'Esposizione di Parigi del 1855; Medaglia Aurea (Præmia Digno) dell'Imperatore di Russia, 1860.

MR. CHARLES FRODSHAM acts as Juror at the present Exhibition, and therefore will not be a candidate for honours.

HOLDSWORTH, SAMUEL, 54 Spencer-street, Clerkenwell, London.

Chronometer and Watch Jewel Manufacturer, and Chronometer and Duplex Pallet Maker.
Pierreries en Horlogerie.

International Exhibition, 1862, Honourable Mention; International Exhibition of Dublin, 1865, Prize Medal; City of London Industrial Exhibition, 1866, Prize Medal.

S. H. begs to call the attention of the trade to his extensive stock of every variety of chronometer and watch jewels, set and unset, chronometer and duplex pallets, duplex rollers, and ruby pins, diamonds, set and unset, and chronometer and watch jewel screws. S. H. has a case of assorted watch jewels for exportation, in order to meet a want long felt by watchmakers living at a distance from the place of manufacture, whereby they may have a regular assorted number of jewels in size of hole and brass. The possession of such a case, it must at once be apparent, would prove of great value to every watchmaker, as a saving of much time and expense.

N.B.—Jewel-holes for drawing gold and other varieties of wire down to filigree work. Marine and pocket compass caps, and points for regulator and ordinary compasses; diamond-boart for lapidaries, seal engravers, and china drillers, and diamond powder.

Precious stones, viz. diamonds, rubies, sapphires, chrysolites, garnets, aquamarines, bought and sold. Price list on application.

S. H. is prepared to enter into contract with watchmakers and merchants.

S. H. désire appeler l'attention des fabricants d'horlogerie à ses marchandises vastes de tous genres; levées de chronomètre duplex, rouleaux duplex, levées rondes, ovales et triangulaires, contre-pivots et diamants, pleins et montés en acier, pour montres. S. H. a une caisse de pierres pour l'exportation à fournir au besoin aux Messieurs les horlogers à quelque distance que soit le fabricant, par lequel un nombre de pierres assorties de toutes grandeurs et de tous genres. La possession de cette caisse est bien en vue, on peut l'apercevoir à l'instant, pour prouver sa grande valeur à tous les horlogers, et leur sauver beaucoup de temps et d'argent.

N.B.—Filières en saphir pour tirer le fil d'or, et tout autre genre de fils à ouvrage fil. Pierre pour boussoles de marine, pointes en rubis pour régulation et compas ordinaires. Diamant boart pour les lapidaire et les graveurs de cachets, les perceur de porcelaine et poudre de diamant.

Pierres précieux, viz. diamants, rubis, saphirs, chrysolithes, grenats, aigue-marins, acheté et vendu.

S. H. a des cartes de prix de ces productions, et il est préparé à entrer en contrat avec tout les marchands d'horlogerie.

KULLBERG, V., 12 Cloudesley-terrace, Liverpool-road, Islington, London.

By Appointment to the Right Honourable the Board of Admiralty.

Manufacturer of Chronometers and Watches, wholesale and for export.

Fabricant de Chronomètres et Montres, en gros et pour l'exportation.

Obtained, for Chronometers with KULLBERG'S Improved Balances, the two First Honorary Prizes of the Admiralty on the competitive trial at the Royal Observatory, Greenwich, in 1862; again, the Second Honorary Prize in 1863; and again the First Honorary Prize in 1864, out of 187 competing instruments on trial, most of them by makers of the highest reputation.

KULLBERG'S productions also obtained the Silver Medal of the Horological Exhibition, Besançon, in 1860; Diplôme d'Honneur, Paris, in 1861; the Medal of the International Exhibition, London, 1862; and the Auld and Reid Prize, with the Silver Medal of the Royal Scottish Society of Arts, Edinburgh, Session 1863-64.

V. KULLBERG is the inventor of improved compensation balances for equalising the rates of chronometers in various temperatures. These balances have the important property of compensating for the varying tension of the pendulum spring, without separate and delicate auxiliary adjustments, a feat considered almost impossible to accomplish only a few years ago; and for the first time since the discovery of the chronometer even gaining in extremes of temperature can be produced at pleasure simply by placing the compensating weights in more or less effective positions on the laminæ of the balance.

V. KULLBERG has a modified construction of this balance for the comparatively confined space of pocket timekeepers.

Rust being one of the most prevailing causes of irregularity of rate and rapid decay of marine chronometers, V. KULLBERG preserves his springs with a suitable lacker.

V. KULLBERG is also inventor of an improved keyless mechanism for fusee watches. This mechanism, besides being the simplest of its kind, has the additional property, 'without extra work,' of locking out of action in shutting the case, thus making it as safe as the going barrel, whilst it possesses all the time-keeping properties of the fusee watch.

Pocket chronometers, chronometrically adjusted lever and duplex watches, independent and split seconds watches, repeaters, &c., of the finest description, either keyless or ordinary.

The high reputation and steady increase in the demand for V. KULLBERG'S productions is a sure and practical proof of the excellence of his works.

A obtenu pour Chronomètres munis de ses Balanciers perfectionnés les deux Premiers Prix Honoraires de l'Amirauté au Concours de l'Observatoire Royal à Greenwich, en 1862; puis le Second Prix Honoraire en 1863; et de nouveau le Premier Prix Honoraire en 1864, sur 187 instruments qui figuraient au Concours, et qui la plupart sortaient des ateliers de fabricants de la plus haute réputation.

Les produits de KULLBERG ont aussi obtenu la Médaille d'Argent à l'Exposition Horologique de Besançon, en 1860; un Diplôme d'Honneur à Paris, en 1861; la Médaille de l'Exposition Internationale, Londres, 1862; et le Prix de Auld et Reid, avec la Médaille d'Argent de la Société Royale Ecossaise des Arts, Edimbourg, Session de 1863-64.

V. KULLBERG est l'inventeur des balanciers perfectionnés à compensation pour égaliser la marche des chronomètres dans les divers milieux de température. Ces balanciers jouissent de la propriété de compenser les tensions variables du ressort du pendule, sans addition de pièces auxiliaires séparées et délicates—tour de force qu'il était regardé, il y a seulement quelques années, comme impossible d'accomplir; et, pour la première fois depuis l'invention du chronomètre, on peut gagner sur les extrêmes de température à volonté en plaçant les poids de compensation dans des positions plus ou moins efficaces sur les lamelles du balancier.

V. KULLBERG est l'inventeur d'une modification de ce même balancier afin de l'adapter à l'espace comparativement restreint qu'il peut occuper dans les chronomètres de poche.

La rouille étant une des causes les plus dominantes de l'irrégularité de marche et de la détérioration rapide des chronomètres marins, V. KULLBERG en garantit ses ressorts avec un vernis composé de façon à remplir ce but.

V. KULLBERG est aussi l'inventeur d'un mécanisme perfectionné, sans clef, pour montres à fusée. Ce mécanisme, le plus simple de son espèce, jouit en outre de la propriété, 'sans pièce additionnelle,' de supprimer l'action du remontoir en fermant la boîte, et par suite de lui donner la sûreté du barillet tournant, en même temps qu'il possède toutes les qualités de précision de la montre à fusée.

Chronomètres de poche, montres à ancre et duplex ajustées chronométriquement, montres à secondes doubles et indépendantes, montres à répétition, etc., du plus beau genre avec ou sans clefs.

La haute réputation et l'accroissement rapide et soutenu dans la demande des produits de V. KULLBERG, sont un sûr garant et une preuve pratique de l'excellence de tous les articles sortant de ses ateliers.

CLASS XXVI.

KENT, G. B., & CO., 11 *Great Marlborough-street, London, w.*—*Established 1777.*

Brush Manufacturers.

G. B. K. & Co. draw the attention of those who are sellers of brushes of high quality to the goods now in the Paris Exhibition; all of which were made on their premises.

They will forward an illustrated priced catalogue of their manufactures to those who enclose a card with their address and trade.

They are represented in Paris by M. MARTINA, No. 25 Rue d'Hauteville, by whom orders are received.

G. B. KENT & Co.'s painting brushes, hair brushes and tooth brushes have a high reputation.

G. B. K. ET CIE. invitent l'attention de ceux qui vendent des brosses de haute qualité sur leurs spécimens de marchandises maintenant à l'Exposition de Paris, tous sortant de leurs ateliers.

Ils enverront un catalogue illustré avec prix-courants de leurs produits aux personnes qui leur enverront leur carte, avec leur adresse et indication de leur industrie.

Leur représentant à Paris est M. MARTINA, No. 25 Rue d'Hauteville, qui reçoit les commandes.

Les brosses à peindre, brosses à cheveux et brosses à dents de G. B. KENT ET CIE., jouissent de la plus haute réputation.

G. B. K. & Co. erlauben sich, die Aufmerksamkeit aller derer, welche Händler in Pinseln und Bürsten von der besten Qualität sind, auf die auf der Pariser Ausstellung jetzt ausgestellten Waaren zu richten; dieselben wurden alle in ihren eigenen Werkstätten gemacht.

Sie werden einen illustrierten Preis-Catalog ihrer Fabricate allen denen zusenden, welche ihnen ihre Karte mit ihrer Geschäftsadresse zuschicken.

Sie sind repräsentirt in Paris durch Herrn MARTINA, No. 25 Rue d'Hauteville, von welchem Bestellungen angenommen werden.

G. B. KENT & Co.'s Maler- und Lackirer-Pinsel, Haarbürsten und Zahnbürsten geniessen eines hohen Rufes.

G. B. K. E CIA. invitano l'attenzione dei venditori di spazzole di qualità superiori agli oggetti che tengono nell'Esposizione di Parigi, i quali tutti furono fatti nel loro stabilimento.

Manderanno un catalogo illustrato e coi prezzi a chiunque accluderà la sua carta d'indirizzo e negozio.

Sono rappresentati a Parigi dal Signore MARTINA, No. 25 Rue d'Hauteville che riceverà gli ordini.

I pennelli da pittori, le spazzole da capelli e da denti di G. B. KENT, E. CIA. godono di una grande riputazione.

GROUP IV.

CLASS XXVII.

EVANS, WALTER, & CO., *Boar's Head Cotton Manufactory, Derby, England.**Established A.D. 1783.*

Trade Mark.

Marque de Fabrique.

Fabrik-Stempel.

Marca commerciale.

Obtained the London International Prize Medal of 1862 for 'very strong and most superior thread;' also the Dublin International Prize Medal of 1865 for 'excellent sewing and knitting cottons, and cotton for sewing machines.'

Manufacture the following:—

Two, three, four, and six cord sewings in skeins and in balls.

Embroidering, knitting, mending, cotton cord and small cord.

Superior six-cord crochet cotton on spools and in skeins, for sewing, knitting, tatting, and crochet.

Superior six-cord sewing on spools, soft finish, for sewing machines.

Patent glaze thread in white, black, and colours, on spools and cards.

Two and three cord sewing on spools, soft finish.

Ont obtenu la Médaille Internationale de Londres en 1862, pour leur 'fil très-fort et de qualité très-supérieure,' ainsi que la Médaille Internationale de Dublin, en 1865, pour leurs 'excellents cotons à coudre et à tricoter, et cotons pour machines à coudre.'

Et fabriquent les articles qui suivent:—

Cotons à coudre à deux, trois, quatre et six brins en écheveaux et pelotes.

Cordonnet, gros et fin, à broder, à tricoter, à raccommoder.

Coton à crochet, qualité supérieure, à six brins, sur bobines et en écheveaux pour coudre, faufiler, tricoter, et pour le crochet.

Coton à six brins, qualité supérieure, sur bobines, sans apprêt, pour machines à coudre.

Fil d'Écosse glacé, breveté, blanc, noir et de couleur, sur bobines et cartes.

Coton à coudre à deux et trois brins, sur bobines, sans apprêt.

Erlangten die Londoner internationale Preis-Medaille von 1862 für 'sehr dauerhaften und vorzüglichen Faden;' ebenso die Dubliner internationale Preis-Medaille von 1865 für 'ausgezeichneten Zwirn und Baumwolle, und Zwirn für Nähmaschinen.'

Verfertigen die folgenden Waaren:—

Zwei-, drei-, vier- und sechsdrähtigen Zwirn in Strähnen und in Knäueln.

Starke und feine Baumwolle zum Sticken, Stricken und Ausbessern.

Beste sechsdrähtige Häkel-Baumwolle, auf Spulen und in Strähnen, zum Nähen, Stricken, Spitzenhäkeln und dergleichen.

Besten sechsdrähtigen Zwirn auf Spulen, weicher Appretur, für Nähmaschinen.

Patentirten Glacé-Zwirn in Weiss, Schwarz und allen Farben, auf Spulen und Karten.

Zwei- und dreidrähtigen Zwirn weicher Appretur, auf Spulen.

Ottennero la Medaglia dell'Esposizione Internazionale di Londra del 1862 per 'filo fortissimo ed eccellente,' ed anche la Medaglia dell'Esposizione Internazionale di Dublino 1865, 'per cotone da cucito e da maglia, e cotone da macchina da cucire eccellenti.'

Fabbricano i seguenti:—

Cotone torto a due, tre, quattro, e sei capi da cucire, in matasse in gomitolli.

Cotone da ricamo, da maglia, da rammendo, cotone torto, grosso e fino.

Cotone superiore a sei capi da crochet in rocchetti e in matasse, per cucito, maglia, imbastitura, e crochet.

Cotone superiore da cucire a sei capi in rocchetti, di un finito molle, per macchine da uccire.

Filo lucido patentato in bianco, nero, e in colori in rocchetti e in cartelline.

Filo a due o tre capi in rocchetti di un finito molle.

CLASS XXX.

PLATT, JAMES, & CO., *Woollen Merchants*, 78 & 84 *St. Martin's Lane*, and 28 & 29 *Cranbourne Street*, London, w.c.

Scotch Tweeds—*Tweeds Ecossais*—Schottische Tweeds—*Tweeds Scozzesi*.

These tweeds, called 'Platt's Tweeds,' were the first tweeds made in Scotland for riding trousers, and were introduced by JAMES PLATT & Co., in 1865, in opposition to those made in the West of England.

Their advantages consist of greater strength, being unbreakable, newer colouring, and greater novelty of design, clearer in colour, and more perfect, being less streaky than other goods of the same character; they are as soft, and yet free from oil, so that there is no fear of oil stains showing when they are cleaned, a very great advantage over the old make. They will not shrink, and are lower in price than any other goods of the same class, being sold by the introducers to drapers and tailors for 10-yard lengths at the same price manufacturers charge the wholesale drapers and merchants.

Nearly 2,000 pieces, the largest stock in the world, of these riding-trowsers tweeds may be seen at their establishment.

Patterns sent free. 5 per cent. for cash.

Represented at Paris by MESSRS. W. S. KIRKLAND & Co., 27 Rue de Richelieu, where samples may be seen and prices ascertained.

Ces 'Tweeds,' dits 'Tweeds de Platt,' furent les premières étoffes de cette espèce fabriquées en Écosse pour pantalons de cheval, et furent présentées au public par JAMES PLATT et Cie. en 1865, en concurrence avec celles fabriquées dans l'ouest de l'Angleterre.

Leurs avantages consistent en ce qu'elles possèdent une plus grande force, étant indéchirables, offrent des couleurs plus nouvelles et des dessins plus nouveaux, sont de nuances plus nettes et plus parfaites, étant moins striées que les autres étoffes de cette espèce; elles sont en outre aussi moëlleuses qu'elles, quoique complètement dégraissées, de sorte qu'on n'a pas à craindre de voir apparaître des taches d'huile quand on les nettoye, grand avantage que n'offre pas le vieux système de fabrication. Ces 'Tweeds' ne se retirent point, et enfin sont d'un prix plus bas que toute autre étoffe de la même classe, MM. PLATT et Cie. les vendant aux drapiers et tailleurs, en longueurs de 10 yards—9,15 m.—aux mêmes prix que ceux faits par les fabricants aux drapiers et marchands en gros.

Près de 2,000 pièces—l'assortiment le plus considérable qui en existe au monde—de ces 'Tweeds' pour pantalons de cheval sont offertes à l'inspection du public.

Échantillons envoyés gratis. 5 pour cent au comptant.

Représentés à Paris par MM. W. S. KIRKLAND et Cie., 27 Rue de Richelieu, où l'on peut voir des échantillons et s'assurer des prix.

Diese Tweeds, 'Platt's Tweeds' genannt, waren die ersten Tweeds, welche in Schottland für Reithosenfabricirt wurden; sie wurden von JAMES PLATT & Co., in 1865, in Opposition zu denen, welche im Westen von England gemacht werden, eingeführt.

Ihre Vortheile bestehen in grösserer Dauerhaftigkeit, indem sie niemals zerreißen, neuerer Farbe und grösserer Neuigkeit im Dessin, welches klarer in Farbe und vollkommener ist; sie sind folglich nicht so streifig als andere Güter von derselben Beschreibung; sie sind ebenso weich, und dennoch frei von Oel, so dass keine Gefahr vorhanden ist, dass sich Oelflecke zeigen, wenn sie gereinigt werden, ein sehr grosser Vortheil, welchen sie über das alte Fabricat haben. Sie laufen nicht ein und sind niedriger im Preise als irgend andere Güter von derselben Klasse, da sie von den Einführern derselben an Tuchhändler und Herren-Kleidermacher für Längen von 10 Yards zu demselben Preise verkauft werden, welchen die Fabricanten den En-gros-Händlern stellen.

Ziemlich 2,000 Stücke, das grösste Lager in der Welt, von diesen Tweeds für Reithosen können in Augenschein genommen werden.

Proben portofrei gesandt. 5 Procent Discounto.

Representirt zu Paris durch die Herren W. S. KIRKLAND & Co., 27 Rue de Richelieu, wo Musterstücke gesehen und Preise erfahren werden können.

Questi Tweeds, detti 'Tweeds Platt,' furono i primi Tweeds fatti in Scozia per pantaloni da equitazione, e furono introdotti da JAMES PLATT e CIA. nel 1865 in opposizione a quelli fatti nell'ovest dell'Inghilterra.

I loro pregi consistono nella maggior robustezza, essendo impossibile romperli, maggior novità di colori e di disegni, più chiari e più perfetti di colore, essendo meno screziati che altri manufatti dello stesso carattere; sono ugualmente molli, eppure liberi dall'olio, così che non vi è pericolo di macchie d'olio quando si ripuliscono; grandissimo vantaggio sopra l'antica fabbricazione. Non ritirano, e sono di minor costo che qualunque altro manufatto della stessa classe, essendo venduti dagli introduttori ai negozianti in dettaglio ed ai sarti in lunghezze di 10 yarde allo stesso prezzo che i fabbricanti vendono ai negozianti all'ingrosso.

Due mila pezze circa possono mostrarne di questa roba da pantaloni da equitazione; fondo di negozio superiore ad ogni altro nel mondo.

Mandano campioni gratis. Sconto 5 per cento pel contante.

Rappresentati a Parigi dai Sgri. KIRKLAND e CIA., 27 Rue de Richelieu, dove si possono vedere campioni ed accertarsi dei prezzi.

SMALPAGE & SON, 41 and 43 Maddox-street, Bond-street, London, w.

Military and Court Tailors.
Tailleurs pour la Cour et l'Armée.
 Militair- und Hofkleidermacher.



Beaufort Stalking Coat (Registered)—*La Veste de Chasse Beaufort (enregistrée).*
 Beaufort-Jagdrock (registriert).

The above illustrates one of the most important inventions for sporting purposes which have lately appeared, and which from its usefulness and extreme novelty is worthy of special notice.

It has already received the patronage of the elite of our sporting gentlemen, his grace the Duke of Beaufort being its imprimatur.

It consists of a coat without sleeves, those appendages being attached to the waistcoat, the back of which being of the same material as the coat forms a perfect garment in itself.

By this method greater freedom of action is given to the arm in shooting, fishing, cricket, croquet, billiards, &c., than is attainable under the old system.

Cette veste est l'illustration d'une des inventions les plus importantes à l'usage du sport qui aient récemment paru, et est digne d'une attention spéciale en raison de son utilité et de son extrême nouveauté.

Elle a déjà reçu le patronage de l'élite de nos gentilshommes du sport, sa grâce le Duc de Beaufort en étant l'initiateur.

Elle consiste en une veste sans manches, ces appendices étaient attachés au gilet, dont le dos

est de la même étoffe que la veste, et qui forme ainsi un vêtement complet par lui-même.

Par cette méthode, une plus grande liberté d'action est donnée au bras pour la chasse, la pêche, le 'cricket,' le croquet, le billard, etc., qu'il n'est possible d'obtenir d'après l'ancien système.

Die obige Illustration erläutert eine der wichtigsten Erfindungen für die Zwecke der Jagd, welche kürzlich aufgekommen sind, und welche wegen ihrer Nützlichkeit und ausserordentlichen Neuheit besondere Beachtung verdient.

Sie erfreut sich bereits der Gönnerschaft der Élite unserer Jagdliebhaber; der Herzog von Beaufort ist der Patron derselben.

Sie besteht aus einem Rocke ohne Aermel; diese Anhängsel gehören zu der Weste, deren Rücken von demselben Material als der Rock ist und ein Kleidungsstück für sich selbst bildet.

Durch diese Methode ist dem Arme grössere Freiheit der Bewegung im Jagen, Fischen, Cricket-, Croquet- und Billardspielen gegeben als nach dem alten System möglich war.



SMALPAGE & SON, Leeds, Yorkshire,
 Patentees of the Weft Cop Winding Machine.
Brevetés pour leur Machine à Cassette.
 Patenteigenthümer der 'Weft-Cop'-Windemaschine.

H

HEPWORTH, BENJAMIN, *New Wakefield Mills, Dewsbury, England,*

Manufacturer of Carriage and Travelling Rugs, Coloured Seals, &c.

Fabricant de Couvertures de Voiture et de Voyage, Vaux Marins de Couleur, etc.

Fabricanten von Kutschen- und Reisedecken, gefärbten Seehundsfellen u. s. w.

Fabbricante di Copertine da Carrozza e da Viaggio, Pelli di Foca colorate, ecc.

Agents—Messrs. MURDOCHS NEPHEWS, 36 *Cannon-street, London, and 50 Fountain-street, Manchester*; Mr. SAMUEL R. BROWN, 1 *Rue de la Bourse, Paris.*

Agents—MM. MURDOCHS NEVEUX, 36 *Cannon-street, Londres, et 50 Fountain-street, Manchester*; M. SAMUEL R. BROWN, 1 *Rue de la Bourse, Paris.*

Agenten: Die Herren MURDOCHS NEFFEN, 36 *Cannon-street, London, und 50 Fountain-street, Manchester*; Herr SAMUEL R. BROWN, 1 *Rue de la Bourse, Paris.*

Agenti—Sgri. MURDOCHS NIPOTI, 36 *Cannon-street, Londra, e 50 Fountain-street, Manchester*; Sig. SAMUEL R. BROWN, 1 *Rue de la Bourse, Parigi.*

CLASS XXXI.

HOLME, GEORGE, *Bath-street Mills, Derby.*

Elastic Fabrics for Boots and Shoes.

At this factory, in the year 1847, steam-power was first applied in the manufacture of elastic fabrics.

The goods made by this firm are especially suited for foreign markets, the india rubber being of the finest quality, and purposely prepared to resist the variations of climate.

The silk used is thrown and prepared from the raw state on the premises, as also the other materials, in order to secure to the customers every advantage, both in price and quality.

Price lists and patterns on application.

Correspondence in all the principal European languages.

Fabrique de Tissus Élastiques pour Chaussures.

C'est dans cette fabrique que dans l'année 1847 la vapeur fût appliquée pour la première fois dans la fabrication des tissus élastiques.

Les marchandises fabriquées par cette maison sont spécialement destinées aux marchés étrangers; les fils de gomme étant de la plus belle et de la plus pure qualité, et préparés expressément pour résister aux diverses variations de climat.

La soie est moulinée et préparée de l'état brut dans l'usine, ainsi que toutes les autres matières premières, afin d'assurer aux clients tous les avantages soit de prix ou de fabrication.

Prix-courants et échantillons sur demande.

Correspondance dans toutes les principales langues européennes.

LISTER & CO., *Wellington Mills, Halifax; Manningham Mills, near Bradford; and Low Mills, Addingham, near Leeds, England.*

Registered
Trade Mark.

Marque
de Fabrique
enregistrée.



Registrirter
Fabrikstempel.

Marca
di Fabbrica
registrato.

Proprietors of the 'LISTER' Patent Silk-Combing Machine; manufacturers of patent long-spun and short-spun silk yarns, viz. schappe, discharged and other damasks, cords, wefts, and yarns from silk waste of all descriptions. Sole makers of LISTER & Co.'s patent diamond silk twist for machine and hand sewings, remarkable for strength, evenness, and cleanness of thread.

LISTER & Co. do not adopt the usual practice of adding artificial weight to their silks when undergoing the process of dyeing, excepting for special orders, hence the length in proportion to the weight is considerably more than common in silk sewings of the same thickness, thus making the price materially cheaper to the consumer.

Propriétaires du 'LISTER Brevet' pour une peigneuse à soie. Fabricants de fils de soie en long et en court, savoir: schappe, damas de fantaisie, etc., cordonnets, trames et fils de déchet de soie de toute sorte. Seuls fabricants du 'patent diamond silk twist' (soie moulignée adamantine brevetée) à coudre, soit à la machine, soit à la main, lequel est remarquable pour sa force, ainsi qu'à cause de l'uniformité et de la propriété du fil.

LISTER & C^{ie}. n'adoptent pas la pratique usuelle d'ajouter à la soie du poids artificiel pendant la teinture, excepté quand on en demande spécialement, par conséquent la longueur de leurs 'patent diamond silk twists,' proportionnelle au poids, est considérablement plus que l'on ne donne ordinairement quand on achète d'autres soies à coudre de la même épaisseur; donc il est évident qu'ils offrent à la consommation beaucoup d'avantage à l'égard du prix.

Eigenthümer der patentirten 'LISTER'-Seiden Kammmaschine; Fabricanten von patentirten lang- und kurzgesponnenen Seidengarnen, nämlich: Schappe, Fantasie- und anderen Damasten, Cordonnets, Fransen, Einschlagfäden und Garnen von allen Gattungen Seidenabfall. Die einzigen Fabricanten von 'LISTER & Co.'s Patent Diamond Silk Twist' für Maschinen- und Handnaht, bemerkenswerth wegen seiner Stärke, Gleichheit und Reinheit des Fadens.

LISTER & Co. folgen nicht dem alltäglichen Gebrauch, der Seide im Färben künstliches Gewicht zu geben, ausgenommen, wenn es besonders verlangt wird. Daher ist bedeutend mehr Länge im Verhältniss zum Gewicht vorhanden, als von Nähseide von derselben Stärke, welche von andern Häusern geliefert wird; sie bietet also für den Consument in Betreff des Preises ungewöhnlichen Vortheil.

Proprietari della Macchina patentata di 'LISTER' per pettinare la seta; manufattori di filo scempio serico filuto lungo, e filato corto, cioè sciappe, damaschi di fantasia ed altri, cordonati, trame e fili scempi di filaticcio di ogni genere. Soli fabbricanti della seta torta diamante patentata di LISTER E CIA. per cucire a macchina ed a mano, notevole per forza, unitezza, e nettezza di filo.

LISTER E CIA. non adottano l'uso solito di aggiungere peso artificiale alle loro sete, sottomettendole al processo della tintura, eccetto per ordini speciali, quindi la lunghezza in proporzione al peso è considerabilmente maggiore che nelle comuni sete da cucire della stessa grossezza, rendendone così il prezzo considerabilmente minore pel consumatore.

CLASS XXXV.

HALL, J. SPARKES, 308 Regent-street, London, Bootmaker to the Queen and the Royal Family.

Inventor, Patentee, or Manufacturer of the following useful articles :—

No. 1. The patent elastic boots for ladies, gentlemen, and children.

Diagrams, sketches and prices of every kind in 'Ancient and Modern Boots and Shoes.' Price 4d.

2. The Pannus Corium elastic boots, very easy and durable. Ladies', from 10s. 6d. Gentlemen's, from 21s.

The material very much improved, extremely soft and pliable for warm climates, 27 inches wide, wholesale at 5s. per yard. Patterns by post for two postage stamps.

3. The silk stocking-net elastic boots, easy and very durable. Price 21s.

4. Boots and shoes for the poor, price list for 2d. Women's, 2s. 6d.; Children's, 2s. per pair.

5. Goloshes and clogs for ladies; of India rubber and leather, and gutta percha, requiring no fastening, straps, or buckles. Price 4s. 6d. to 10s. 6d.

Note.—'Shoes began to be made of the cut sheet rubber I think as early as 1825 or 1828, but not in considerable quantities until, 1828 and 1830, Mr. Sparkes Hall took the lead, and maintained it. He has told me that he began in 1830, and made 12 pairs a day with his own hands.'—Vide '*India-Rubber Manufacture in England*,' by Thomas Hancock. London: Longman, Brown, & Green, 1857.

6. The shoemaker's upright bench. Price 25s. Drawings and pamphlet, 2d.

7. The patent sanitary ventilator for dwellings. Price 20s. Pamphlet, 2d.

8. The mechanical boot stretcher for ladies and gentlemen ('where the shoe pinches'). Price 25s. Pamphlet 4d.

9. The 'cottager's cooking stove' presented to the tenants and workmen of the inventor as a suggestion for increased comfort convenience, and economy.

It is an open fire place, has a cheerful wood, coal, or peat fire, and will at the same time bake, roast, boil, and fry, at the cost of a few pence, and is complete with flues, and requires no skill in fixing. Price One Guinea.

No. 1. Les brodequins élastiques, brevetés, pour dames, messieurs et enfants.

Diagrammes, croquis et prix de toutes les sortes de 'Chaussures Anciennes et Modernes.' Prix, 40 c.

2. Les bottines élastiques en Pannus Corium, très-douces au pied et très-durables. Pour dames, depuis 13 frs. 15 c. Pour messieurs, depuis 26 frs. 25 c.

Même matière considérablement perfectionnée, extrêmement douce et pliable, pour climats chauds, 27 pouces—68,58 c.—de large, en gros à 6 frs. 25 c. le yard—91 c. Échantillons envoyés par la poste moyennant deux timbres-poste.

3. Les brodequins élastiques à bas de soie, très-doux au pied et très-durables. Prix, 26 frs. 25 c.

4. Bottes et souliers pour les pauvres, prix-courants pour 2d.—20 c. Pour femmes, 3 frs. 10 c.; pour enfants, 2 frs. 50 c. la paire.

5. Galoches et socques pour dames; en caoutchouc et en cuir, ainsi qu'en gutta-percha, ne demandant nulle attache, courroies ou boucles. Prix, 5 frs. 65 c. à 13 frs. 15 c.

Notice.—'On commença, si je ne me trompe, depuis aussi longtemps qu'en 1825 ou 1828 à faire des souliers avec le caoutchouc en feuilles coupées, mais en quantités peu considérables, jusqu'à ce que, en 1828 et 1830, M. SPARKES HALL ait pris dans ce genre de fabrication le premier rang, où il a su se maintenir. Il commença, m'a-t-il dit, en 1830, et en faisait 12 paires par jour de ses propres mains.'—Voir '*Dela Manufacture du Caoutchouc en Angleterre*,' par Thomas Hancock. Londres: Longman, Brown, & Green, 1857.

6. Le banc droit du cordonnier. Prix, 31 frs. 25 c. Dessins et notice, 20 c.

7. Le ventilateur sanitaire, breveté, pour habitations. Prix, 25 frs. Notice, 20 c.

8. L' étendeur mécanique à bottines, pour dames et messieurs (agissant où la chaussure meurtrit). Prix, 31 frs. 25 c. Notice, 40 c.

9. Le 'fourneau du paysan,' présenté aux locataires et ouvriers de l'inventeur comme suggestion d'augmentation de confort, de commodité et d'économie.

Ce fourneau consiste en un foyer ouvert, offrant un joyeux feu de bois, de houille ou de tourbe, et sert à la fois de four, et à faire rôti, bouillir et frire, moyennant une dépense de seulement quelques pences; complet avec tuyaux, et ne demandant pas la moindre habileté pour le monter. Prix, 26 frs. 25 c.

HALL, W. SPARKES, & CO., 310 *Regent-street, London.*

Bootmakers by appointment to H.R.H. the Prince of Wales.

Bottiers de S. A. R. le Prince de Galles.

W. SPARKES HALL & Co. beg to call the attention of gentlemen to the following articles, samples of which may be seen in the Paris Exhibition (Class 35):—

Hunting Boots. Top Boots.

Butcher Boots.

Shooting Boots. 'The Cowhide Forester.'

Dress Boots.

Silk Stockingnet Elastic Boots,

Military Dress Boots.

Dress Wellington Boots. Walking Boots.

'Balmoral' Boots.

Pannus Corium Boots (for tender feet),

Very suitable for warm climates.

Gentlemen ordering any of the above articles may depend on their being of the same quality and workmanship as those exhibited.

W. SPARKES HALL & Co., 310 *Regent-street,*
London,

Near the Langham Hotel.

W. SPARKES HALL ET CIE. ont l'honneur d'appeler l'attention des messieurs sur les articles suivants, dont on peut voir des échantillons à l'Exposition de Paris (Classe 35):—

Bottes Molles. Bottes à Revers.

Souliers à Oreilles. Brodequins de Chasse.

'Le Forestier, en Cuir de Vache.'

Brodequins Fins.

Brodequins Élastiques à Bas de Soie.

Bottes Militaires Fines.

Bottes Fines. Brodequins de Promenade.

Brodequins 'Balmoral.'

Brodequins en Pannus Corium (pour pieds tendres).

Parfaitement convenables pour climats chauds.

Les messieurs qui commanderont quelque'un de ces articles peuvent être certains qu'il sera de la même qualité et main-d'œuvre que ceux exposés.

W. SPARKES HALL ET CIE., 310 *Regent-street,*
Londres,

Près le Langham Hôtel.

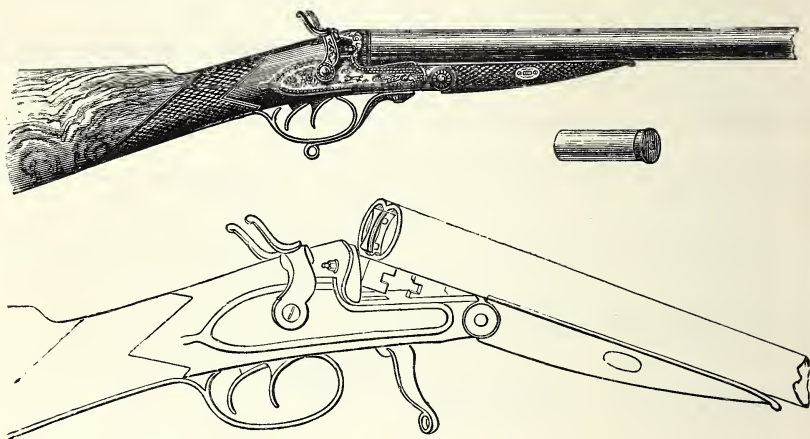
CLASS XXXVII.

REILLY, E. M., & CO., 502 *New Oxford-street, London, w.c.**Branch—315 Oxford-street, London, w.*

Gun Manufacturers.

Improved breech-loading guns for pin cartridges, on their well-known 'Double Grip' system, combining simplicity and durability; likewise several well-made 'Spring Actions,' which renders the gun self-closing.

Fusil de chasse à bascule de nos fabriques, canons en damas turcs, batteries et platines de première qualité. Ce fusil n'a pas l'inconvénient de l'ancien système à bascule, il s'ouvre et se ferme avec un ressort ce qui en facilite l'action



Patent 'Central Fire' direct action breech-loading guns. The superiority of this system is now well attested by its all but exclusive use amongst the most eminent English sportsmen of the present day. Its shooting powers, both for strength and closeness, are unrivalled. The facility for loading and extraction of the exploded cartridge, combined with cleanliness, makes this gun superior to any hitherto produced.

Patent revolvers of the latest and most approved systems, made throughout by machinery, thus producing exactitude and finish yet unattainable by hand-labour. By this means the cost of production is reduced considerably.

Fusil de chasse à bascule, système perfectionné 'Feu Central.' La maison lui a dédié une mention et breveté; la cartouche dont la capsule se trouve au centre communique le feu instantanément n'a pas l'inconvénient de l'ancien système Lefauchaux; elle peut se placer aussi facilement dans l'obscurité qu'à la lumière et sans perdre un précieux moment. Enfin, ce système est généralement adopté par nos adroits chasseurs et sportsmen d'Angleterre.

Pistolets revolvers de tous les plus nouveaux systèmes pour la défense, l'amusement au salon, et à la campagne, etc. etc. Ces armes sont 'entièrement' fabriquées par machines, et les rend plus précis et permet d'en réduire considérablement le prix.

GROUP V.

CLASS XL.

BOWLING IRON COMPANY, *Bradford, Yorkshire, England.**Three Prize Medals awarded from international exhibitions.*

Manufacturers of best crucible cast steel in all its branches; tyres; double or single crank-axles, straight axles; cog wheels, railway cross-ings, &c. &c. Also the well-known Bowling iron boiler plates; weldless iron tyres; straight tyres bent to a circle; wrought-iron axles; T iron, angle iron bars, and rivet iron.

Stationary and locomotive boilers; patent weldless hoops for boiler flues; stationary engines, and all sorts of millwright and foundry work.

Trois Médailles décernées à des expositions internationales.

Fabricants des meilleurs aciers fondus en creusets, de toutes sortes; bandes de roues; essieux coudés doubles et simples, essieux droits; roues dentées; croisements de chemins de fer, etc. etc. Manufacturent également les plaques si bien connues, dites 'plaques de Bowling,' pour chaudières; bandes de roues en fer, sans soudure; bandes droites courbées en cercle, essieux en fer forgé; fer en T, barres de fer pour angles et fer à rivets.

Chaudières pour machines fixes et pour locomotives; cercles sans soudure pour tuyaux de chaudières; machines à vapeur fixes; enfin toutes espèces de machines pour construction de moulins, et tous produits de forge et fonderie.

Drei Preis-Medaillen sind von internationalen Industrie-Ausstellungen erteilt worden.

Fabricanten von bestem Schmelztiegel-Gussstahl in allen seinen Branchen; Radschienen; doppelten oder einfachen Krummzapfen-Achsen, geraden Achsen; Kammrädern, Eisenbahn-Querschienen u. s. w. u. s. w. Ebenso von den wohlbekannten Dampfkessel-Platten von Bowling-Eisen Radschienen ohne Schweiss;

geraden Radschienen zu einem Reif gebogen Achsen von Schmiedeeisen; T Eisen, Eisenstangen für Winkel und Eisen für Nieten und Klammern.

Ebenso von stehenden und transportablen Dampfkesseln; patentirten Reifen ohne Schweiss für Dampfkesselröhren; stehenden Dampfmaschinen und allen Arten von Mühlbauer- und Eisengiesserei-Arbeit.

Hanno riportate tre Medaglie delle esposizioni internazionali.

Fabbrica del miglior acciaio fuso in crogioli in tutti i suoi rami; cerchioni; sale a lieva doppi e o semplici, sale rette; ruote dentate, scambi ferroviari, ecc. ecc. Ed anche i ben conosciuti lastroni per caldaie detti 'Bowling,' cerchioni in ferro senza saldatura a caldo, cerchioni retti piegati in circolo; sale in ferro battuto; ferro T, barre di ferro ad angolo, e ferro da ribaditure.

Caldaie da macchine fisse e locomotive; cerchi senza saldatura per fumaiole di caldaia; motori fissi, ed ogni sorta di lavoro di fucina e di fonderia.

Con tres Medallas obtenidas en exposiciones internacionales.

Fabricantes del mejor acero colado de crisol en todos sus ramos; hileras; ejes de cigüeña dobles ó simples, ejes rectos; ruedas dentadas, cruzados de ferrocarriles, &a. &a. Como tambien de las bien conocidas planchas de hierro para calderas 'Bowling,' hileras de hierro sin fin; hileras rectas encorvadas en circulo; ejes de hierro forjado; hierro T, barras de hierro de angulo, é hierro para remaches.

Calderas fijas y locomobiles; cercos de patente sin fin para chimeneas de calderas; maquinias fijas, y todas especies de obras de molino y funderia.

GANE, CHARLES, & CO., *Baltic Wharf, Wisbeach, England.*

Timber and Slate Merchants.

Marchands de Bois de Construction et Ardoises.

Roofing slates (Welsh), of the peculiar tint so much sought after by architects.

This slate is believed to be one of the most durable in the market ; is never known to vegetate, and is non-absorbent.

Supplied direct from the quarries, and sent to any railway station or seaport. Address—

CHAS. GANE & Co., timber, deal, lath, and slate merchants, Baltic Wharf, Wisbeach.

Portmadoc blue roofing slates.

Bangor slates, direct from the quarries.

Slate ridgings, direct from the quarries.

Blue ridge tiles (Staffordshire), plain, rolled, and ornamental ; direct from the works.

Blue and red flooring tiles, direct from the works.

Glazed socketed drainpipes, direct from the works.

Terra-cotta chimney tops, &c., direct from the works.

Wood cargoes—landed on rent.

Prices and particulars on application by post.

Ardoises pour toitures (des Galles), de la nuance particulière si recherchée par les architectes.

Cette ardoise est considérée comme une des plus durables qui se trouvent dans le marché ; jamais il ne s'y produit de végétation, et elle est parfaitement non-absorbante.

Fournies directement des carrières, et expédiées à toute station de chemins de fer ou port de mer. Adresser les commandes à—

CHAS. GANE et C^{IE}., marchands de bois de construction, sapin, lattes et ardoises, Baltic Wharf, Wisbeach.

Ardoises bleues pour toitures de Portmadoc.

Ardoises de Bangor, expédiées directement des carrières.

Ardoises pour faitages.

Tuiles bleues pour faitage (du Staffordshire), unies, cannelées et ornementées ; expédiées directement des fabriques.

Carreaux bleues et rouges pour carrelage.

Tuyaux de drainage, vernissés, à socle.

Faïtières de cheminées en terre-cuite, etc.

Cargaisons de bois—débarquées à loyer.

Prix-courants et détails par la poste sur demande.

GILPIN, WILLIAM, SEN., & CO., *Wedges Mills and Churchbridge Works, Cannock, Staffordshire, England.*

A Prize Medal was awarded them at the International Exhibition of 1862, for 'Edge Tools of Good Quality.'

W. G., SEN., & Co. exhibit a large assortment of their Patent boring bits, adapted for machinery, and brace bits and augers, for hand-labour, and a general variety of tools for carpenters', shipwrights', platelayers', masons', miners', and smiths' use. Agricultural and horticultural tools, &c.

This firm are also makers of anvils, vices, cart arms and boxes, for English, foreign, and colonial consumption; steel of the highest qualities, and iron of various descriptions.

Une Médaille leur a été décernée à l'Exposition Internationale de 1862 pour 'Outils à Tranchant de Bonne Qualité.'

W. G., SEN., ET CIE. exposent un large assortiment de leurs mèches à forer, brevetées, pour adaptation aux machines, de vilebrequins et tarières pour travail à la main, et une variété générale d'outils à l'usage des charpentiers, charpentiers en navires, poseurs, maçons, mineurs et forgerons. Outils d'agriculture et d'horticulture.

Cette maison fabrique aussi enclumes, étaux, rayons et moyeux de charrettes, pour consommation intérieure, extérieure et coloniale; acier de la première qualité, et fer de toutes sortes.

Eine Preismedaille für 'Schneidewerkzeuge guter Qualität' wurde ihnen in der Ausstellung im Jahre 1862 zuerkannt.

W. G., SEN., & Co. stellen eine grosse Auswahl von patentirten Bohreisen für Maschinerie, Spanneisen und Zimmermannsbohrer, Werkzeuge für selbe, für Schiffbauer, Steinsetzer, Maurer, Bergleute und Schmiede-, Acker- und Gartengeräthe aus.

Diese Firma macht auch Ambosse, Schraubstöcke, Karrenarme und Karten, für Englischen, fremden und colonialen Gebrauch; Stahl von der allerbesten Qualität, sowie Eisen verschiedener Art.

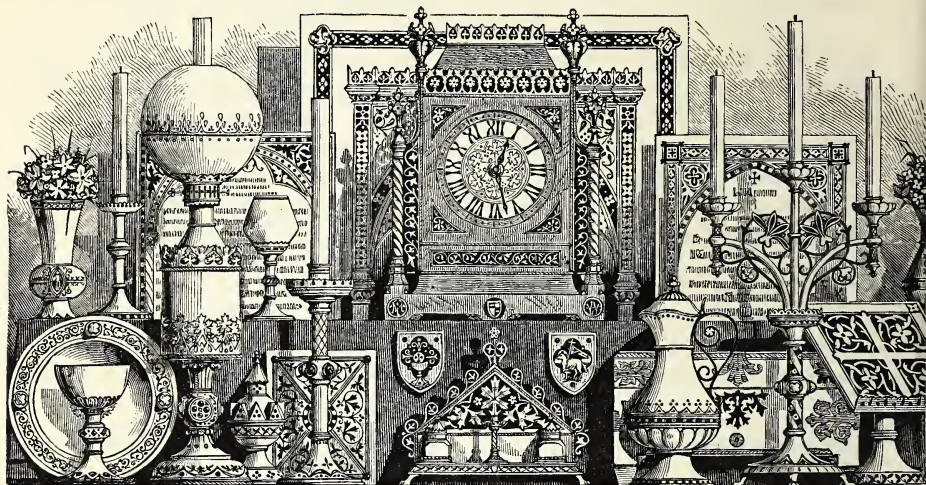
La Medaglia fu loro aggiudicata all'Esposizione Internazionale del 1862 per 'Strumenti da Taglio di Buona Qualità.'

W. G., SEN., E CIA., espongono un grande assortimento di punte da trapano, patentate, adattate per meccanismi, e punte da trivelle e succhielli per lavoro a mano, ed una varietà generale di arnesi da falegnami, costruttori di navi, costruttori di ferrovie, muratori, minatori, e fabbri. Arnesi per agricoltura e orticoltura, ecc.

Questa ditta fabbrica anche incudini, morse, barre, e incassature di mozzì da carro, ad uso nostrale, estero e delle colonie; acciaio delle migliori qualità, e ferro di varie specie.

HART & SON, 53 to 58 *Wyck-street, Strand, w.c., and 70, 71, 72 Brook-street, Hanover-square, w., London.*

Manufacturers of Ecclesiastical and Domestic Art Metal-work
and Engravers of Monumental Brasses.



Only some of the smaller works exhibited by HART & SON are engraved in the above group; these are principally for domestic use, and have been selected to show the attention paid by this firm to every-day requirements. We call attention to the Library Clock as a happy example of the blended use of oak and brass, the effect of the metal being enhanced by a judicious employment of colour.

The gilt Flagons and Basins are very beautiful productions, exhibiting much elegance in the design, and great delicacy in the engraving of the ornament and figures. The subjects on the smaller dish illustrate Tennyson's poem, 'The Mermaid.' These vessels are designed by Mr. W. BURGESS.

The large jewelled chalice and the richly enamelled casket are important works; both will repay minute inspection.

The Monumental Brass is intended for a soldier's tomb, and represents St. Michael overcoming Satan; at the angles of the border the cardinal virtues are engraved. The design

is the joint production of Messrs. JOHN BENTLEY and N. WESTLAKE. It quite realises, both in design and execution, the style and artistic feeling of the best works of the Middle Ages.

Of the brass Eagle Lecterns, the larger is remarkable for much originality of design, the height is divided into three stages, and terminates in an allegory—the Gospel vanquishing Infidelity—represented by an eagle trampling on a dragon; the eagle supports the book-rest, which is ornamented in black incise, the front having a cross surrounded by the evangelistic emblems, and the back a foliated ornamentation.

The Gospel Candlesticks are designed by Mr. W. BUTTERFIELD, and well merit attention for the beauty of their foliated capitals, and the mellowness of the illumination.

In wrought-iron the gates designed by Mr. J. P. SEDDON, the door-fittings, the fire-dogs, and especially the magnificent Candle Standard, well sustain the high reputation of this house.

JOHNSON, RICHARD, & NEPHEW, *Manchester.*

Iron Manufacturers, Wire Drawers and Galvanisers, Telegraph and Fencing Contractors.
Forges, Tréfileries, Ateliers de Galvanisation, Matériel pour Télégraphes et Enclos à Fil de Fer.
Eisenhütten, Drahtziehereien, Verzinkungsöfen; Telegraphen- und Verzäunungs-Materialien.

Telegraph wire rolled and drawn in pieces weighing 80lbs. and upwards, without any weld or joint whatever; and tested by machine, which ensures perfect and uniform quality throughout the whole length.

Telegraph insulators of every description, and guaranteed as to both strength and insulating capacity.

Patent steel and iron wire of the finest quality for ropes. Cast steel and iron wire of all kinds for general purposes.

Fil de fer télégraphique laminé et tréfilé en pièces de 35 à 55 kilogrammes, sans soudure ou ligature quelconque; éprouvé par un appareil à tension qui garantit une qualité parfaite et uniforme de chaque pièce dans toute sa longueur.

Isolateurs télégraphiques de toute espèce et

garantis sous le rapport de solidité et capacité isolante.

Fil d'acier et fil de fer de la plus fine qualité pour câbles. Fil d'acier fondu, et fil de fer à l'usage général.

Telegraphendraht in Rollen von 80 Pfund und darüber, ohne irgend welches Gelöthe oder sonstige Verbindung, und mittelst einer Maschine geprüft, welche die vollkommene und gleichmässige Qualität jedes einzelnen Stückes in seiner ganzen Länge verbürgt.

Isolatoren aller Art, garantirt bezüglich Stärke und Isolirungsfähigkeit.

Patent-Stahl- und Eisendraht von feinsten Qualität für Seile. Gussstahl- und Eisendraht aller Art zu allgemeinem Gebrauche.

THE PATENT PLUMBAGO CRUCIBLE COMPANY,

SOLE MANUFACTURERS UNDER MORGAN'S PATENT,

BATTERSEA WORKS, LONDON, S.W.

These Crucibles (MORGAN'S PATENT) were the only ones to which Prize Medals were awarded in London, 1862; Dublin, 1865; New Zealand, 1865; and Oporto, 1865.

They have been in use for many years in the English, Colonial, French, and other foreign mints; the English, French, and other arsenals; and have been adopted by most of the large engineers, founders, and refiners at home and abroad.

The capabilities which have now for more than twelve years distinguished these crucibles are the following :—

Their quality is uniform. They withstand the greatest heat without danger. Their average durability for *gold, silver, copper*, and other ordinary metals is forty to fifty pourings, in some cases reaching one hundred. They never crack, and heat more rapidly than any other kind. One annealing only is required. Change of temperature has no effect. They can when hot from the furnace be dipped in cold water with safety. The saving of labour and metal is very great. In *steel melting* the saving of fuel has been demonstrated to amount to a ton and a half to every ton of

steel fused. For *zinc* they last longer than iron pots, and save the great loss which arises from mixture with iron. Those for *malleable cast-iron* show an average working of seven days, doing each day nearly double the work of any other crucible.

As these crucibles last much longer than any others, it follows that the saving of metal must be great, because to each worn crucible a quantity of metal adheres. In fact, comparing these with other crucibles, the *saving of metal and fuel* alone is more than equivalent to *their cost*.

A are made in sizes varying from two ounces to any required capacity, and are marked by the quantity of kilograms they will contain—thus, No. 100 will contain 100 kilograms.

B differ in shape, but correspond in all other respects with *A*, and are similarly marked.

C are marked in English pounds—thus, a crucible marked 60 will contain 60 lbs.

D are made expressly for steel, in various sizes.

For Illustrations and Trade Mark, see next page.

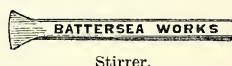
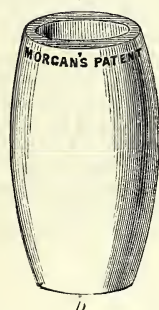
PATENT PLUMBAGO CRUCIBLE COMPANY,

SOLE MANUFACTURERS UNDER MORGAN'S PATENT,

BATTERSEA WORKS, LONDON, S.W.



Crucibles made to any shape and size to order.



TRADE



MARK.

Some unprincipled manufacturers having made such close imitations of our trade-mark as cannot fail to deceive the public, we have deemed it advisable to alter our mark, as here shown. It will be observed that the alteration consists in the OMISSION of the words—'DEPÔTS AT PARIS AND ROTTERDAM,' and the ADDITION of the words—'MORGAN'S PATENT.'

In all future orders, please specify 'MORGAN'S PATENT,' and address to *Battersea Works, London, S.W.*

SOPWITH, THOMAS, F.R.S., F.G.S., *Mining Engineer, Member of the Geological Society of France.*

Lead Ores and Lead.
Minerais de Plomb et Plomb.
 Bleierze und Blei.
Minerale di Piombo e Piombo.

Obtained Prize Medals at the International Exhibitions, London, 1851; Paris, 1855; and London, 1862.

These ores and illustrations of lead mining are from the well-known 'W. B.' lead mines of Mr. Beaumont, in the counties of Northumberland and Durham, in the north of England. The position of the principal mines, and the geological structure of the districts in which they are situated (extending over upwards of 200 square miles), are shown by plans and sections. The various processes of dressing and smelting the ores are shown by specimens in each stage of the respective processes, and a detailed account of the mines, and of their produce, may be seen in the official catalogue of the London International Exhibition of 1851. These mines produce the 'W. B.' or 'Blackett' lead, which is well known for superior quality in the markets of Europe and America.

(*Exhibited by T. SOPWITH, Chief Agent of the Mines, 'W. B.' Lead Office, Newcastle-on-Tyne, and 103 Victoria-street, Westminster, s.w.*)

Médailles aux Expositions Internationales de Londres, en 1851; Paris, en 1855; et Londres, en 1862.

Ces minerais et illustrations de l'industrie minière du plomb proviennent des mines bien connues, dites 'W. B.', de M. Beaumont, dans les comtés de Northumberland et de Durham, au nord de l'Angleterre. Des plans et sections montrent la situation des principales mines, et la structure géologique des districts (compré-
 nant plus de 200 milles carrés) dans lesquels elles se trouvent. Les divers procédés de préparation et de fusion des minerais sont illustrés par des spécimens pris dans chaque phase des procédés respectifs, et une description détaillée de ces mines et de leurs produits se trouve dans le catalogue officiel de l'Exposition Internationale de Londres de 1861. Ce sont ces mines qui donnent le plomb dit 'W. B.' ou 'Plomb de Blackett,' si renommé pour la qualité supérieure sur les marchés d'Europe et d'Amérique.

Erlangte Preis-Medaillen auf den internationalen Industrie-Ausstellungen in London, 1851; Paris, 1855; und London, 1862.

Diese Bleierze und Illustrationen des Bleibergbaues sind von den wohlbekannten 'W. B.' Bleibergwerken des Herrn Beaumont, in den Grafschaften Northumberland und Durham, in dem Norden von England. Die Lage der hauptsächlichsten Gruben und die geologische Structur des Districts, in welchem dieselben liegen (und welcher einen Flächenraum von über zwei hundert (Englischen) Quadratmeilen umfasst), sind durch Pläne und Durchschnitte angezeigt. Die verschiedenen Prozesse der Aufbereitung und des Schmelzens der Erze sind durch Proben von jeder Stufe der respectiven Processe dargestellt, und ein genauer Bericht über die Gruben und deren Producte kann in dem officiellen Cataloge der Londoner internationalen Industrie-Ausstellung von 1851 eingesehen werden. Diese Gruben produciren das 'W. B.' oder 'Blackett'-Blei, welches durch seine ausgezeichnete Qualität so wohlbekannt in den Märkten von Europa und Amerika ist.

Ottenne la Medaglia all' Esposizioni Internazionali di Londra del 1851; di Parigi, 1855; e di Londra, 1862.

Questo minerale di piombo ed illustrazioni di lavorazioni di miniere di piombo sono tratti dalle ben conosciute miniere di piombo 'W. B.' del Signor Beaumont nelle contee di Northumberland e Durham nel norte dell' Inghilterra. La posizione delle principali miniere, e la struttura geologica dei distretti in cui sono situate (in un' estensione di circa 200 miglia quadrate), sono dimostrate con piante e profili. I vari processi per preparare e fondere il minerale sono dimostrati da saggi di ciascuno grado dei rispettivi processi; ed una relazione dettagliata delle miniere, e dei loro prodotti, si può vedere nei cataloghi ufficiali dell' Esposizione Internazionale di Londra, 1851. Queste miniere producono il 'W. B.' o piombo 'Blackett,' che è ben conosciuto per qualità superiore ne mercati di Europa ed America.

TURTON, THOMAS, & SONS, *Sheaf and Spring Works*, SHEFFIELD,

MANUFACTURERS OF

LOCOMOTIVE ENGINE AND RAILWAY CARRIAGE SPRINGS;

BUFFERS WITH CONICAL AND VOLUTE SPRINGS;

CAST-STEEL FORGINGS OF EVERY DESCRIPTION;

CAST STEEL, SPRING STEEL, SHEAR STEEL, ETC. FOR ALL PURPOSES;

FILES, EDGE-TOOLS, AND ENGINEERS' TOOLS.

London Warehouse: 35 *Queen-street, City*.

Paris „ 10 *Rue du Grand Chantier*.

New York „ 102 *John-street*.

TURTON, THOMAS, & SONS, *Sheaf and Spring Works*, SHEFFIELD,

FABRICANTS DE

RESSORTS POUR LOCOMOTIVES ET VOITURES DE CHEMIN DE FER;

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PIÈCES DE FORGE EN ACIER FONDU DE TOUTE DESCRIPTION;

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Dépôt à Londres: 35 *Queen-street, City*.

„ *à Paris*: 10 *Rue du Grand Chantier*.

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TURTON, THOMAS, & SONS, *Sheaf and Spring Works*, SHEFFIELD,

FABRICANTEN VON

FEDERN FÜR LOCOMOTIVEN UND EISENBAHNWAGEN;

BUFFERN MIT KEGEL- UND SCHNECKENFEDERN;

FABRICATEN JEDER ART VON GUSSSTAHL;

GUSSSTAHL, RAFFINIRTEM FEDERSTAHL U. S. W. FÜR ALLE ZWECKE;

FEILEN, SCHNEIDWERKZEUGEN UND WERKZEUGEN FÜR MASCHINENBAUER.

Niederlage in London: 35 *Queen-street, City*.

„ *in Paris*: 10 *Rue du Grand Chantier*.

„ *in New-York*: 102 *John-street*.

TURTON, THOMAS, & SONS, *Sheaf and Spring Works*, SHEFFIELD,

FABBRICATORI DI

MOLLE DA LOCOMOTIVE E VAGONI DI FERROVIE;

ZAFFI A MOLLE CONICHE O SPIRALI;

LAVORI IN ACCIAIO FUSO DI OGNI GENERE;

ACCIAIO FUSO, ACCIAIO DA MOLLE, ACCIAIO RAFFINATO, ECC., AD USO QUALUNQUE;

LIME, STRUMENTI DA TAGLIO, E STRUMENTI DA INGEGNERE.

Magazzino a Londra: 35 *Queen-street, City*.

„ *a Parigi*: 10 *Rue du Grand Chantier*.

„ *a Nova Ycrk*: 102 *John-street*.

VICKERMAN & CO., *Kilgetty Anthracite Iron Works and Collieries; also Bonville's Court Anthracite Collieries, Saundersfoot, Tenby, Pembrokeshire, South Wales, England.*

The coal from these collieries is considered the purest anthracite in the world, and is extensively used throughout Great Britain and Ireland for making the finest qualities of pale malt, and for drying corn, hops, &c., for which purpose it holds the highest position, owing to its extreme purity and durability. The following is an analysis of the coal:—

{ Carbon . 94.18	{ Sulphur 0.15	} = 100
{ Hydrogen 2.72	{ Oxygen 1.82	
{ Nitrogen 0.15	{ Ash 0.98	

It has also been successfully used for *steam purposes* in *Her Majesty's Yacht*, the 'Great Britain,' the 'Royal Charter,' and other steamers. It is perfectly *free from smoke*, very hard, resisting the effects of attrition, of *great specific gravity* (1.420), occupying little space (32.75 cubic feet for 1 ton), and of *high evaporative power* (10.55 lbs. water to 1 lb. coal).

The small or 'culm,' and is largely used for lime-burning in England, Wales, Ireland, and France.

The pig iron made at these works is of the finest description, being made from the native ores of the district, with an admixture of the best hematites, and smelted with the noted *Kilgetty anthracite coal*. It is used principally for *tin plate and other descriptions of first-class iron*, and also for conversion into steel under the Bessemer process. The following is an analysis of *Kilgetty anthracite (steel) iron*:—

{ Iron 94.08	{ Sulphur 0.04	} = 100.11
{ Carbon 4.47	{ Phosphorus 0.08	
{ Silicon 0.96	{ Manganese 0.48	

Le charbon qui provient de ces houillères est regardé comme la plus pure anthracite qui se trouve au monde, et est largement employé dans toute la Grande Bretagne et l'Irlande pour faire les qualités les plus belles de malt pâle, et pour sécher le grain, le houblon, etc., usage pour lequel il occupe la position la plus élevée, en raison de sa pureté et de sa durabilité. Ci-après est l'analyse de cette houille:—

{ Carbone . 94.18	{ Soufre 0.15	} = 100
{ Hydrogène . 2.72	{ Oxygène 1.82	
{ Nitrogène . 0.15	{ Cendres 0.98	

Cette houille a été également employée avec succès pour le chauffage des machines à bord du *Yacht de Sa Majesté*, du 'Great Britain,' du 'Royal Charter,' et autres steamers. Elle a la qualité de ne produire nulle fumée, étant très-dure, résistant très-bien aux effets de l'attrition, possédant une gravité spécifique considérable (1.420), n'occupant que fort peu de place (32.75 pieds cubes—0.896 m. cub.—par tonne—1.015 kilogr.) et étant douée d'une haute puissance d'évaporation (10.55 livres—plus de 4.540 kilogr.—d'eau par 1 livre—0.454 k.—de houille).

La plus petite, ou 'culm,' est d'un usage très-répandu pour brûler la chaux en Angleterre, dans les Galles, en Irlande et en France.

Le fer en gueuses manufacturé à ces forges est de la plus belle qualité, provenant des minerais natis du district mélangés avec les meilleures hématites, et fondus avec la célèbre *anthracite* de Kilgetty. Cette fonte est employée principalement pour la fabrication du fer-blanc et autres fers de première qualité, et aussi pour conversion en acier d'après le procédé Bessemer. Voici l'analyse du Fer de Kilgetty à l'anthracite (acier):—

{ Fer . 94.08	{ Soufre . 0.04	} = 100.11
{ Carbone 4.47	{ Phosphore 0.08	
{ Silice . 0.96	{ Manganèse 0.48	

Die Kohle aus diesen Kohlengruben wird für die reinste Anthracit der Welt gehalten; sie wird Grossbritannien und Irland zum Bereiten der feinsten Qualitäten von hellem Malz und zum Trocken von Korn, Hopfen u. s. w. gebraucht, für welchen Zweck sie die höchste Stellung, wegen ihrer ausserordentlichen Reinheit und Dauer, einnimmt. Das Folgende ist eine Analyse der Kohle:—

{ Kohlenstoff . 94.18	{ Schwefel . 0.15	} = 100
{ Wasserstoff . 2.72	{ Sauerstoff . 1.82	
{ Stickstoff . 0.15	{ Asche . 0.98	

Sie ist ebenso erfolgreich für Dampferzeugungszwecke auf der *Yacht ihrer Majestät*, der 'Great Britain,' auf der 'Royal Charter,' und auf andern Dampfschiffen angewandt worden. Sie ist vollkommen *frei von Rauch*, sehr hart, widersteht der Wirkung der Reibung ist von *grosser spezifischer Schwere* (1.420), nimmt sehr wenig Raum (32,75 Kubikfuss für eine Tonne) ein und ist von *hoher dämpferzeugender Kraft* (10,55 Pfund Wasser auf ein Pfund Kohle).

Die kleine Kohle oder 'Culm' wird sehr viel zum Kalkbrennen in England, Wales, Irland und Frankreich gebraucht.

Das auf diesen Eisenhütten gemachte Roheisen ist von der feinsten Art; es wird von den einheimischen Erzen des Districts (mit einer Beimischung der besten Hematiten) gewonnen und mit der berühmten *Anthracit-Kohle* von Kilgetty geschmolzen. Sie wird hauptsächlich für *verzinnete Platten und andere Arten von Eisen erster Qualität* benutzt, und ebenso zur Verwandlung des Eisens in Stahl durch den Bessemer-Process. Das Folgende ist eine Analyse des *Kilgetty-Anthracit-(Stahl-) Eisens*:—

{ Eisen . 94.08	{ Schwefel . 0.04	} 100.11
{ Kohlenstoff 4.47	{ Phosphor . 0.08	
{ Silicium . 0.96	{ Braunstein 0.48	

NEW SOUTH WALES GOLD DISTRICTS.

Two Cases illustrating the various Deposits encountered in Sinking for Gold in this Colony, and the Character of the Gold thus obtained; prepared from Contributions by the Commissioners of the Gold Fields, and exhibited by SIR DANIEL COOPER, BART.

The value of the gold specimens in this series is calculated, after melting, at 3*l.* 17*s.* 10½*d.* the ounce standard; the silver being treated as alloy, and its value neglected.

The following is a detailed catalogue of the series:—

NORTHERN DISTRICT.

NUNDLE.		
No.	Thickness of stratum	
1	4 feet	Black mould.
2	4 feet	Ironstone (trappean).
3	6 feet	Loam.
4	6 feet	Red gravel.
5	5 feet	Wash dirt, yielding 3½ dwts. of gold per load of 50 buckets.
6		Gold from the above, containing after melting, in 1,000 parts—gold, 937·6; silver, 62·0. Value per oz. 3 <i>l.</i> 19 <i>s.</i> 7 <i>d.</i>
7		Bed rock, baked schistose rock.

This locality contains about 150 working miners, and yields a monthly average of about 350 ozs. of gold; the washing being usually effected by means of sluice boxes.

PEEL RIVER.

1	1 ft. 6 in.	Red loam.
2	2 feet	Stiff ferruginous clay.
3	1 foot	Wash dirt.
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 929·5; silver, 67·5. Value per oz. 3 <i>l.</i> 18 <i>s.</i> 11 <i>d.</i>
5		Bed rock, decomposed serpentine.

The gold here is obtained by ground sluicing, and a party of three can get about 19 dwts. of gold daily. Working population, about 150; average monthly yield, about 350 ozs.

HANGING ROCK.

1	3 feet	Red loam and clay.
2	5 feet	Loam, approaching to clay.
3	5 feet	Drift.
4	2 feet	Quartz crystals imbedded in ferruginous cement.
5	5 feet	Wash dirt, yielding 20 ozs. of gold to 40 cubic feet.

No.	Thickness of stratum	
6		Gold from the above, containing, after melting, in 1,000 parts—gold, 934·9; silver, 63·1. Value per oz. 3 <i>l.</i> 19 <i>s.</i> 5 <i>d.</i>
7		Bed rock, decomposed trap, hardened. Here, also, the gold is obtained by ground sluicing. Working population, about 150; monthly yield, about 350 ozs.

ROCKY RIVER.

1	2 ft. 6 in.	Black soil.
2	2 ft. 0 in.	Stiff clay.
3	27 ft. 0 in.	Nodular (amygdaloidal) basalt.
4	33 ft. 0 in.	Basalt in jointed masses.
5	3 ft. 6 in.	Blue clay and scoria, baked.
6	5 ft. 0 in.	Yellow magnesian clay.
7	6 in.	Black clay.
8	3 ft. 0 in.	Fine yellow sand and clay.
9	3 ft. 6 in.	Black clay, becoming shaly when dry.
10	3 ft. 6 in.	Buff sand, or soft sandstone.
11 } 12 }	6 ft. 6 in.	{ Auriferous drift, fine at top, coarse in the middle, and still coarser at bottom.
13		Gold from the above, containing, after melting, in 1,000 parts—gold, 969·3; silver, 26·9. Value per oz. 4 <i>l.</i> 2 <i>s.</i> 4 <i>d.</i>
14		Bed rock soft granite, red and grey.

The auriferous drift is raised by windlass and bucket. It is washed in sluice boxes when water is abundant, and by cradle when it is scarce. The yield from the claim whence samples have been taken averaged on its first working 5 ozs. per load of 50 buckets, the bed rock being carefully scraped, and the drift washed to a thickness of 2 feet above the

granite. The party now working the claim remove the drift to a thickness of 4 or 5 feet above the granite, obtaining about 15 dwts. per load, and occasionally meeting with a block, of which the produce is equal to that of the original ground. A section of this shaft accompanies the series marked 'Sydney Flat Claim No. 1, Rocky River.'

TIMBARRA—PRETTY GULLY.

No. of stratum	Thickness of stratum	
1	3 ft.	Drift, one foot below the surface.
2	3 ft.	Whitish clayey wash-dirt, yields 1 grain per dish.
3	1 ft. 6 in.	Whitish shaly wash-dirt, yields 2 dwts. per tub.

WESTERN DISTRICT.

IRONBARK CREEK.

1	1 to 2 ft.	Dark vegetable soil, mixed with rounded fragments of trap.
2	20 feet.	Greyish blue trap tuff.
3	2 to 4 ft.	Quartz fragments in ferruginous and argillaceous cement.
4	6 to 10 ft.	Hardened deposit of clay.
5	1 to 4 ft.	Washing stuff quartzose drift with whitish schist, yielding 3 dwts. of gold per load.
6		Gold from the above, containing after melting, in 1,000 parts—gold, 971·8; silver, 24·2. Value per oz. 4 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i>
		Bed rock, white slate.

The working population of this locality number about 50 miners who collectively obtain a monthly average of 200 ozs., usually by means of puddling machines.

CARCOAR.

1	Not given.	Ferruginous trap.
2	"	Grey sandy clay.
3	"	Quartz gravel.
4	6 in. to 1 foot.	Washing stuff. Quartzose drift, with light yellow shale, yielding 2 dwts. per tub.
5		Gold from the above, containing, after melting, in 1,000 parts—gold 837·0; silver, 159·0. Value per oz. 3 <i>l.</i> 11 <i>s.</i> 1 <i>d.</i>
6		Bed rock, white decomposed slate.

The gold is obtained by tub, cradle, and sluice box. Population, about 20 Europeans, and 60 to 70 Chinese; average monthly yield, about 100 ozs.

MERRUNDEE.

1 } 2 }	Not given.	Surface soil, ferruginous.
3	1 ft.	Washing stuff yields about 2 dwts. of gold per tub of 30 gallons.

No. of stratum	Thickness of stratum	
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 899·5; silver, 96·5. Value per oz. 3 <i>l.</i> 16 <i>s.</i> 5 <i>d.</i>
5		Bed rock, schistose rock.

POVERTY POINT.

1	3 feet	Drift 1 foot below the surface
2	2 to 8 ft.	Drift yielding $\frac{1}{4}$ gr. of gold per dish.
3	2 feet	Drift yielding 2 grs. of gold per dish.
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 928·5; silver, 66·0. Value per oz. 3 <i>l.</i> 18 <i>s.</i> 10 <i>d.</i>
5		Bed rock, decomposing granite.

4		Gold from the above, containing, after melting, in 1,000 parts—gold 873·6; silver, 121·7. Value per oz. 3 <i>l.</i> 14 <i>s.</i> 2 <i>d.</i>
5		Bed rock schist.
		Contains a working population of about 70 Europeans, and 200 Chinese, who obtain about 200 ozs. monthly, by means of tub, cradle, and sluices.

STONEY CREEK.

1	3 to 10 ft.	Black soil.
2	12 to 30 ft.	Pebbly drift.
3	3 to 6 in.	Washing stuff, consisting principally of rounded fragments of schist, yielding 2 dwts. of gold per tub.
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 936·8; silver, 59·7. Value per oz. 3 <i>l.</i> 19 <i>s.</i> 7 <i>d.</i>
5		Bed rock, drab-coloured slate.
		Contains working population of about 200, chiefly Chinese, who obtain a monthly average of from 300 to 400 ozs. by cradles, tubs, and sluice boxes.

OPHIR.

1 } 2 }	Not given.	{ Red soil. { Sandy grit.
3	8 in. to 1 ft.	Washing stuff, quartzose drift, mixed with pale yellow shale, yielding 3 dwts. of gold per tub.
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 915·4; silver, 82·2. Value per oz. 3 <i>l.</i> 17 <i>s.</i> 9 <i>d.</i>
5		Bed rock, white slate.

This locality contains a working population of about 50 Europeans, and 60 to 70 Chinese, obtaining collectively a monthly average of about 150 ozs. by means of tub, cradle, and sometimes by sluicing.

MUDGE—PIPE-CLAY CREEK.

1	10 feet	Stiff brown clay.
2	12 feet	Clay containing much oxide of iron.

No. of stratum	Thickness of stratum	
3	5 feet	Drift containing quartz (white, and ferruginous), clay and shale, yielding 1 gr. of gold per tub.
4	1 foot	Clay coloured by oxide of iron, not auriferous.
5	4 in. to 1 ft.	Quartzose drift, &c., yielding 2 dwts. per tub.
6		Gold from the above, containing, after melting, in 1,000 parts—gold, 898.5; silver, 100.5. Value per oz. 3 <i>l</i> . 16 <i>s</i> . 4 <i>d</i> .
7		Bed rock, slate.

These samples are from a flat adjoining the creek, which is a tributary of the Cudgegong, running westerly. The method of working is by tub washing. At the opening of these diggings there were about 150 miners on the creek, obtaining on an average 3½ ozs. monthly per man.

WINDEYER—RICHARDSON'S POINT, MEROO RIVER.

1	14 feet	Surface soil, sandy clay.
2	3 feet	Drift containing quartz, flat shaly pebbles, &c. yielding 3 grs. of gold per tub.
3	1 foot	Drift containing quartz, flat shaly pebbles, ironstone, &c. yielding 9 grs. of gold per tub.
4	4 feet	Washing stuff; bright yellow clay, with quartz, ironstone, &c. yielding 30 grs. per tub.
5		Gold from the above, containing, after melting, in 1,000 parts—gold, 959.0; silver, 37.5. Value per oz. 4 <i>l</i> . 1 <i>s</i> . 5 <i>d</i> .
6		Bed rock, slate.

Richardson's Point is apparently the old bed of the Meroo. It is about 4 acres in extent, and at one period had 100 miners on it. Average produce, 5 ozs. monthly per man.

WINDEYER—DEVIL'S-HOLE CREEK.

1	7 feet	Drab-coloured soil.
2	2 feet	Drab-coloured clay.
3	2 feet	Decomposing ferruginous conglomerate.
4	1 foot	Washing stuff; quartz, ironstone, clay, &c. yielding 3 dwts. per tub.
5		Gold from the above, containing, after melting, in 1,000 parts—gold, 946.0; silver, 53.5. Value per oz. 4 <i>l</i> . 0 <i>s</i> . 4 <i>d</i> .
6		Bed rock, slate.

Devil's-Hole Creek is a tributary of the Meroo, and a mile in length, running into it in a northerly direction. At the opening of the diggings on this creek, there were about 1,200 miners, producing, by tub washing, cradle, and sluicing, 7,200 ozs., per month.

HARGRAVES—LOUISA CREEK.

1	1 foot	Drab clay.
2	8 feet	Whitish clay, with ironstone nodules interspersed.

No. of stratum	Thickness of stratum	
3	1 foot	Washing stuff, whitish clay with ironstone, yielding 4 grs. of gold per tub.
4		Gold containing, after melting, in 1,000 parts—gold, 914.7; silver, 84.3. Value per oz. 3 <i>l</i> . 17 <i>s</i> . 8 <i>d</i> .
5		Bed rock or bar of slate, breaking up from 3 inches to 3 feet in depth, in the pockets and crevices of which gold is found, averaging 6 dwts. to the tub.

The Louisa Creek rises on the table land, 500 feet above the Meroo, and runs into it northward about 10 miles. The diggings are on the table land, about 4 miles from its rise. At the opening of these diggings 600 miners averaged, monthly, 4 ozs. per man, obtained by pugmill and tub.

TAMBAROORA—GOLDEN GULLY.

1	1 ft. 6 in.	Drab-coloured stiff soil, containing about ½ dwt. of gold per load of 50 buckets.
2	2 ft.	Yellow clay, with quartz, ironstone, &c. containing 1 dwt. per load.
3	1 ft.	Reddish yellow clay, with quartz, ironstone, &c. containing 1 dwt. per load.
4	2 ft.	Reddish yellow clay, with quartz, ironstone, &c. containing 2 dwts. per load.
5	3 ft.	Sandy clay, with quartz, ironstone, &c. containing 4 dwts. per load.
6	6 in.	Soft shale, containing from 4½ to 7½ dwts. per load.
7	6 in.	Soft shale, containing from 6 to 10 ozs. per load.
8		Gold from the above, containing, after melting, in 1,000 parts—gold, 954.0; silver, 42.0. Value per oz. 4 <i>l</i> . 1 <i>s</i> .
9		Bed rock, gneiss.

The whole depth from surface to bed rock is washed, and the yield averages from 3 to 3½ dwts. per load. A horse puddling machine is usually employed for this purpose. About 9 inches in depth of the bed rock itself is also washed, yielding about 1 dwt. per load.

TAMBAROORA—DIRT-HOLE CREEK.

1	3 feet	Black soil.
2	6 feet	Shaly and schistose drift, with quartz, ironstone, &c. containing 1 dwt. of gold per load of 50 buckets.
3	5 feet	Sandy clay, containing 2½ dwts. per load.
4	1 foot	Sandy drift, containing 6 to 7 dwts. per load.

No. of stratum	Thickness of stratum	
5	Gold from the above, containing, after melting, in 1,000 parts—gold, 943·5; silver, 53·0. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 1 <i>d.</i>	
6	Bed rock, slate.	

The whole depth, with exception of surface, is washed by means of horse puddling machines.

TAMBAROORA—BALD HILLS.

1	5 feet	Reddish clay
2	2 feet	Ditto, ditto.
3	2 feet	Drift, quartz, ironstone, and sandy clay.
4	2 feet	Clay (white).
5	Gold from the above, containing, after melting, in 1,000 parts—gold, 943·0; silver, 54·0. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 1 <i>d.</i>	
6	Bed rock, slate.	

The whole depth, from surface to bed rock, is washed by means of horse puddling machines, and yields from 3 to 3½ dwts. per load.

TAMBAROORA—LOWER TURON.

1	2 feet	Ferruginous clay, with pebbles.
2	8 feet	Ditto, ditto.
3	4 feet	Sandy clay, with pebbles, quartz, &c.
4	Gold from the above, containing, after melting, in 1,000 parts—gold, 948·0; silver, 50·0. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 6 <i>d.</i>	
5	Bed rock, drab slaty rock.	

The whole depth, from surface to bed rock, is often washed; the ordinary hand-washing in tubs being the method employed. The average yield is from 4 to 5 dwts. per load of 50 buckets. The diggings are situated in the river bed.

TAMBAROORA—MAQUARIE RIVER.

1	8 feet	Dark coloured fine drif, with quartzite nodules.
2	5 feet	Clay with pebbles.
3	7 feet	Ditto ditto.
4	Gold from the above, containing, after melting, in 1,000 parts—gold, 946·6; silver, 45·5. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 5 <i>d.</i>	
5	Bed rock, drab slaty rock.	

The surface layer is thrown aside, and the other two are washed in 'Long-toms,' yielding 4 to 4½ dwts. per load.

PYRAMUL CREEK.

1	3 feet	Quartz, in argillaceous cement.
2	3½ feet	Stiff clay, with quartz.
3	Gold from the above, containing, after melting, in 1,000 parts—gold, 948·0; silver, 48·0. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 6 <i>d.</i>	
4	Bed rock, sandstone of the slate formation.	

These diggings are in the creek bed. The whole depth is washed by 'ground sluicing,' and yields on the average 3¾ dwts. per load.

CENTRAL TURON.

No. of stratum	Thickness of stratum	
1	4 feet	Loam.
2	3 feet	Pebbly drift.
3	Not given	Washing stuff, pebbly drift.
4	Gold from the above, containing, after melting, in 1,000 parts—gold 928·6; silver 68·5. Value per oz. 3 <i>l.</i> 18 <i>s.</i> 10 <i>d.</i>	
5	Bed rock, trappean.	

The claim whence the samples are taken is situated in the river bed. The preliminary works are of a costly and interesting character. A tunnel was driven through 354 feet of solid rock, forming a neck of land, to drain a bend of the river three-quarters of a mile long. It occupied 10 men two years, and cost 3,425*l.* The average yield is about 3 dwts. per tub. The labour employed by this company involves a yearly expenditure of 10,500*l.*

WATTLE FLAT.

1	6 feet	Surface earth.
2	2 feet	Washing stuff, yielding 1 dwt. per tub.
3	Gold from the above, containing, after melting, in 1,000 parts—gold, 925·7; silver, 72·1. Value per oz. 3 <i>l.</i> 18 <i>s.</i> 7 <i>d.</i>	
4	Bed rock, eisenkiesel, with cubes of pyrites, intersected with small quartz veins.	

The work in this locality is almost entirely carried on by puddling machines, which are annular wooden troughs, sunk in the ground, and through which harrows are drawn by a horse working within the ring. This operation disintegrates the mass, which is afterwards washed by a cradle.

CENTRAL TURON—ERSKINE FLAT.

1	5 feet	Clay, with pebbles of quartz, &c.
2	12 feet	Sand, with pebbles of trap, slate, quartz, &c.
3	Not given.	Washing stuff, average yield, ½ dwt. of gold per tub.
4	Gold from the above, containing, after melting, in 1,000 parts—gold, 918·8; silver, 78·5. Value per oz. 3 <i>l.</i> 18 <i>s.</i>	
5	Bed rock, schistose vein.	

Dry bank diggings. The whole of this bank is washed to a depth of 40 feet. The average yield per tub is ½ dwt. The gold is obtained by sluicing, the water being brought a distance of 5 miles to obtain the requisite elevation. Though the yield is small, the immense quantity which is passed through the sluices, when water is plentiful, makes a good return. The cost of such works is sometimes 3,000*l.* The working population of the Central Turon is about 1,800, and the monthly yield about 2,400 ozs.

SOUTHERN DISTRICT.

BURRANGONG—LAMBING FLAT.

No. of stratum	Thickness of stratum	
1	1½ foot	Dark sandy soil.
2	1½ foot	Sandy granitic drift.
3	1 foot	Drift with much quartz and mica.
4	10½ feet	Sandy micaceous drift.
5	3½ feet	Argillaceous ditto, with much small angular quartz.
6	1½ foot	Ditto, with decomposing granite.
7		Gold from the above, containing, after melting, in 1,000 parts—gold 949.0; silver, 44.5. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 7 <i>d.</i>
8		Bed rock, soft granite.

The shaft whence specimens were taken is 3 feet by 22 inches, with a depth of 19½ feet. The average yield of the washing stuff is 1 dwt. to the bucket.

BURRANGONG—TIPPERARY GULLY.

1	4 feet	Fine quartzose sand with reddish argillaceous cement.
2	8 feet	Stiff clay, containing nodules of oxide of iron.
3	7½ feet	'Cement,' quartzose gravel.
4	10 feet	Micaceous clay.
5	12 feet	Argillaceous 'cement' with mica.
6	9½ feet	Whitish clay.
7	5½ feet	Argillaceous gravel, with oxide of iron.
8	2 feet	Granitic drift, with fragments of quartz.
9		Gold from the above, containing, after melting, in 1,000 parts—gold, 947.5; silver, 47.6. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 6 <i>d.</i>
10		Bed rock, decomposing red granite.

The shaft whence samples were taken is 38 inches by 22 inches, and 58½ feet deep; average yield of gold, 1½ dwts. to 6 buckets.

BURRANGONG—BACK CREEK.

1	10 in.	Dark alluvial sandy soil.
2	10 ft.	Bluish sandy clay, with vegetable matter.
3	15 ft.	Bluish alluvial clay.
4	14 ft.	Argillaceous cement, mica, felspar, and oxide of iron.
5	10 in.	Brownish drift sand, granite, mica and quartz.
6	8 ft.	Argillaceous cemented sand, granite, quartz, and mica.
7	14 in.	Drift sand, composed of crushed granite and quartz.
8		Gold from the above, containing, after melting, in 1,000 parts—gold, 887.0; silver, 107.2. Value per oz. 3 <i>l.</i> 15 <i>s.</i> 4 <i>d.</i>
9		Bed rock, granite, decomposing.

BURRANGONG.

No. of stratum	Thickness of stratum	
1	1 ft.	Dark vegetable soil.
2	2 ft.	Yellowish clay, with vegetable matter.
3	16 ft.	Yellow and blue clay.
4	10 ft.	Very hard 'cement,' containing silica, oxide of iron, and mica schist.
5	14 ft.	Hard grey clay, with vegetable matter.
6	2 ft. 3 in.	Greyish drift sand, quartz, pebbles, and mica.
7		Gold containing, after melting, in 1,000 parts—gold, 948.2; silver, 48.4. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 6 <i>d.</i>
8	6 in.	Wash drift, from which the above is obtained, consisting of argillaceous sand, quartz, pebbles, oxide of iron, and a few quartz boulders.

The Burrangong gold-fields are on a granite formation; the sinking moderate, except in some places, where the granitic drift, about 10 feet from the bottom, is cemented, and very hard. On the creeks much water has to be contended against, and almost all the shafts require to be slabbed.

BRAIDWOOD—MAJOR'S CREEK.

1	1 ft. 6 in.	Black soil.
2	2 ft. 0 in.	Ditto, but lighter colour.
3	3 ft. 0 in.	Stiff black soil.
4	2 ft. 6 in.	Drift from decomposed granite.
5	4 ft. 0 in.	Stiff black soil.
6	6 ft. 0 in.	Fine grey drift.
7	2 ft. 0 in.	Wash dirt.
8		Gold from the above, containing, after melting, in 1,000 parts—gold, 934.5; silver, 62.0. Value per oz. 3 <i>l.</i> 19 <i>s.</i> 4 <i>d.</i>
9		Bed rock, decomposing granite.

This gold-field is on granite. The average thickness of the washing stuff is from 2 to 6 feet, varying much in yield, from simply, 'the colour,' to 2 ozs. per bucket. The claim whence these samples were taken yields about 50 ozs. per week to a party of four men. The working population of the locality numbers about 250 men. The monthly yield averages about 500 ozs., but varying with the weather and supply of water. The method of working is to remove the superincumbent deposit till the wash dirt is reached; this operation is called 'stripping.' The washing stuff is then removed and washed through sluice boxes, the gold collecting in the false bottom of the sluice box.

UPPER ADELONG.

No. of stratum	Thickness of stratum	
1	Not given.	Vegetable mould.
2	„	Drift, with much hornblendic rock in nodules.
3		Gold from the above, containing, after melting, in 1,000 parts—gold 946·0 ; silver, 25·7. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 4 <i>d.</i>
4		Bed rock, slate.

LOWER ADELONG.

No. of stratum	Thickness of stratum	
1	8 ft.	Drift, with rounded pebbles of quartz, and hornblendic rock.
2	1 ft.	Ditto, ditto.
3	1 ft.	Wash drift.
4		Gold from the above, containing, after melting, in 1,000 parts—gold, 951·5 ; silver, 45·8. Value per oz. 4 <i>l.</i> 0 <i>s.</i> 10 <i>d.</i>
5		Bed rock, chlorite slate.
The washing stuff yields about 40 <i>l.</i> weekly to six men.		

CLASS XLIV.

ALLEN & HANBURY'S, *London.*

Sole Consignees of LIEBIG'S EXTRACT OF MEAT manufactured on the Establishments of Robert Tooth, Esq., Sydney, Australia.



Liebig's extract of meat contains those valuable nutritious constituents of fresh meat which are peculiar to animal food. One ounce of it contains the soluble matter of about two pounds of fresh meat, free from fat.

Strong beef-tea is made by dissolving a small tea-spoonful of the extract ($2\frac{1}{2}$ drams by weight) in half a pint of hot water, to which some salt and a little pepper should be added.

Soups.—The extract is especially valuable in the making of soups. The vegetables, herbs, and spices being boiled with the proper quantity of water, the extract is dissolved in the liquor in the proportion of from $\frac{1}{2}$ oz. to $1\frac{1}{2}$ oz. according to taste, in each gallon.

The ease and rapidity with which it may be used, the excellence of the result, and the important saving it effects in the cost, render its employment highly convenient and advantageous whenever soup is required either in large or small quantities.

L'extrait de viande de Liebig renferme tous ces éléments précieux et nutritifs de la viande fraîche qui sont le propre de la nourriture animale. Une once (28 grammes) de cet extrait contient la matière soluble de près de deux livres de viande fraîche, sans gras.

On obtient un bouillon très nutritif par la dissolution d'une demie-cuillerée à café de l'extrait (10 grammes) dans 30 centilitres d'eau chaude, à laquelle on ajoute du sel et un peu de poivre.

Potages.—Il est surtout précieux pour la confection des potages. Après avoir fait bouillir les légumes, herbes et épices dans la quantité d'eau convenable, on fait dissoudre l'extrait dans le liquide, dans la proportion de $\frac{1}{2}$ once à $1\frac{1}{2}$ once (15,55 à 46,65 gr.), selon les goûts, pour chaque 5 litres.

La facilité et la rapidité avec lesquelles on peut se servir de cet extrait, l'excellence de ses résultats, et l'importante économie qu'il permet de réaliser, rendent son usage éminemment convenable et avantageux toutes fois qu'on a besoin de confectionner du potage, soit en petite, soit en grande quantité.

FLEET & CO., *Walworth, London.*

Artificial Mineral Waters, and Chemicals used in their manufacture; Chemical Constituents of Natural Springs.

Carbonated mineral waters, from their agreeable flavour and refreshing qualities, now hold a place among the requirements of life. They are generally imitations of natural springs, charged with carbonic acid gas. Being prepared from careful analyses of the natural springs, these waters are equally useful for medicinal purposes, while they are produced at considerably less cost. As an instance we may mention the increasing use of English Seltzer, and still more recently of Vichy, which, from being more highly charged with carbonic gas, are frequently prescribed by most eminent physicians in preference to the natural waters.

Messrs. FLEET have had the distinguished honour of personally describing to H.R.H. the Prince of Wales the various processes of mineral water manufacture.

Samples of English Manufacture exhibited.

WATERS,

Soda	Lithia	Vichy
Potass	Aërated Quinine	Pyrmont
Magnesia	English Seltzer	Pullna

Lemonade, Sherryade, &c.

Messrs. FLEET are also patentees and sole manufacturers of the Steam Soda Water Machinery and Bottling Apparatus used in the preparation of these waters.

(Two Honourable Mentions, *International Exhibition, London, 1862. Prize Medal, York, 1866.*)

Purveyors of Mineral Waters to the Paris Exhibition.

ALLHUSEN, C., & SONS (LIMITED), *Tyne Chemical Works, Gateshead—Offices, Newcastle-on-Tyne.*

Sulphate, Crystals and Bicarbonate of Soda; 60 and 70 per cent. Caustic Soda; 52 per cent. Refined and Unrefined Alkali; Chloride of Lime.

Sulphate, Cristaux et Bicarbonate de Soude; 60 et 70 pour cent Soude Caustique; 52 pour cent Alkali raffiné et non-raffiné; Chlorure de Chaux.

Schwefelsaure Soda, Soda-Crystalle und doppeltkohlensaure Soda; 60 und 70 % caustische Soda; 52 % gereinigtes und ungereinigtes Alkali; Chlorkalk.

Solfato, Cristalli e Bicarbonato di Soda; Soda Caustica a 60 e 70 per cento; Alkali raffinato 52 per cento e non-raffinato; Cloruro di Calce.

These works, in addition to the plant required for the manufacture of sulphuric and hydrochloric acids, alkalis, and chloride of lime, comprise saw mills, an extensive cooperage, common and fire-brick manufactories, coke ovens, and gas works. The weekly consumption of raw materials averages:—Coals 2,250 tons, pyrites 350 tons, nitrate of soda 10 tons, chalk 900 tons, salt 450 tons, manganese 100 tons, French limestone 125 tons. The weekly production of sulphate of soda is 500 tons, equivalent to 375 tons of soda ash or unrefined alkali; which is in subsequent processes converted into quantities varying with the demand, and not exceeding separately 450 tons crystals of soda, 150 tons refined alkali, 100 tons bicarbonate of soda, 30 tons caustic soda, and 110 tons chloride of lime.

The wages paid per week amount to £1,250*l.* The articles exhibited are ordinary samples of the several chemicals manufactured in these works.

Cette manufacture comprend, en outre du matériel nécessaire pour la fabrication des acides sulphurique et hydrochlorique, des alcalis et du chlorure de chaux, des scieries, une vaste tonnellerie, des fabriques de briques communes et réfractaires, des fours à coke et une usine à gaz. La consommation des matières brutes est en moyenne, par semaine, de: Houille 2,250 tonnes; pyrites, 350 tonnes; nitrate de soude, 10 tonnes; craie, 900 tonnes; sel, 450 tonnes; manganèse, 100 tonnes; pierre à chaux française, 125 tonnes. La production de sulphate de soude est, par semaine, de 500 tonnes, équivalant à 375 tonnes de sel de soude ou alkali non-raffiné; ce qui est converti, par des procédés ultérieurs, en quantités variant selon la demande, et qui ne dépassent point, séparément, 450 tonnes de cristaux de soude, 150 tonnes d'alkali raffiné, 100 tonnes de bicarbonate de soude, 30 tonnes de soude caustique et 110 tonnes de chlorure de chaux.

Les salaires payés chaque semaine s'élèvent à £1,250*l.* = 31,250 fr. Les articles exposés sont des échantillons ordinaires des divers produits chimiques fabriqués dans cette manufacture.

Diese Fabriken, ausser dem Betriebsmaterial, welches für die Fabrication von Schwefelsäure, Salzsäure, Alkalien und Chlorkalk erforderlich ist, umfassen Sägemühlen, eine ausgedehnte Fassbinderei, Ziegelöfen für gewöhnliche und feuerfeste Backsteine, Coke-Oefen und Gasfabrik. Die durchschnittliche wöchentliche Consumption von Rohmaterialien beträgt: 2,250 Tonnen Kohlen, 350 Tonnen Schwefelkies, 10 Tonnen salpetersaure Soda, 900 Tonnen Kalk, 450 Tonnen Salz, 100 Tonnen Braunstein, 125 Tonnen Französischen Kalkstein. Die wöchentliche Production von schwefelsaurer Soda ist 500 Tonnen, welches 375 Tonnen Sodaasche oder ungereinigtem Alkali gleichkommt; dieses ist in späteren Processen in mit dem Verlangen Schritt haltende Quantitäten verwandelt, und diese Letzteren übersteigen nicht, gesondert, 450 Tonnen Soda-Crystalle, 150 Tonnen gereinigtes Alkali, 100 Tonnen doppeltkohlensaure Soda, 30 Tonnen caustische Soda und 110 Tonnen Chlorkalk.

Die wöchentlichen Arbeiterlöhne belaufen sich auf £1,250*l.* (über 8,000 Thlr.) Die ausgestellten Artikel sind ordinaire Proben der in diesen Fabriken verfertigten Chemicalien.

Questo stabilimento, oltre il materiale necessario per la fabbricazione degli acidi solforici ed idroclorici, alcali, e cloruro di calce, comprende anche seghe a macchina, una gran fabbrica di botti, una fabbrica di mattoni da fuoco e comuni, forni da coke, e fabbrica di gas. Il consumo settimanale di materie prime ascende in media a 2,250 tonnellate di carbon fossile, 10 tonnellate di soda, 900 tonnellate di gesso, 450 tonnellate di sale, 100 tonnellate di manganese, 125 tonnellate di pietra calcarea francese. Il prodotto settimanale in solfato di soda è 500 tonnellate, equivalente a 375 di genere di soda o alcali non raffinato; il quale nei processi susseguenti è convertito in quantità che variano secondo la richiesta, e non eccedenti ciascuno separatamente le 450 tonnellate di cristalli di soda, 150 tonnellate di alkali raffinato, 100 tonnellate di bicarbonato di soda, 30 tonnellate di soda caustica, e 110 tonnellate di cloruro di calce.

I salari pagati settimanalmente ammontano a £1,250*l.* ster. Gli oggetti esposti sono campioni usuali delle diverse preparazioni chimiche fabbricate in queste officine.

BORWICK'S BAKING POWDER,

Invented about twenty years ago, by Mr. GEORGE BORWICK, of 24 Chiswell-street, London, is used very extensively for making digestive bread, without yeast, and for improving puddings and pastry, by rendering them light and digestible. It is strongly recommended by the *Lancet*, and by many of the most eminent medical men of the day.

THE PATENT OZONISED COD-LIVER OIL.

The peculiar effects of Ozone upon organic structures, and more especially upon dead blood, were first noticed by Mr. Dugald Campbell, the Analytical Chemist to the Brompton Hospital for Consumption; and to him is due the suggestion of impregnating Cod-Liver Oil and other oils with Ozone, and thus conveying artificially to the lungs of the delicate and consumptive, without the effort of inhalation, and in larger proportions than found in the atmosphere, this extraordinary life-giving agent.

The experiments with the Ozonised Cod-Liver Oil were undertaken by the late Dr. Theophilus Thomson, and his colleague, Dr. Scott Alison, at the Consumption Hospital, the results being detailed in a paper read before the Royal Medical and Chirurgical Society of London.

This success exceeded their most sanguine expectations, the quick pulse (the most correct index of the severity of the disease) was unexpectedly reduced to its proper standard, and further experiments proved that other favourable symptoms speedily followed. A healthy tone was given to the appetite, long-standing coughs were removed, the system became strengthened and invigorated, and not only have the delicate become strong and healthy, but *patients in the first stages of consumption have been restored to perfect health*—in fact, it is now proved beyond doubt, that Ozone is to the weak, delicate, and consumptive, what Quinine is to those who are affected with fever—the nearest approach to a specific yet discovered.

Mr. BORWICK, 24 Chiswell-street, sole licensee.

Inventée il y a peu près vingt ans par M. GEORGE BORWICK, du No. 24, Chiswell-street, à Londres, cette poudre est d'un usage très-répandu pour faire du pain digestif, sans levûre de bière, et pour améliorer les puddings et la pâtisserie en les rendant plus légers et d'une digestion plus facile. Elle est fortement recommandée par la '*Lancette*,' et par nombre de médecins des plus éminents.

HUILE DE FOIE DE MORUE OZONISÉE,
BREVETÉE.

Les effets particuliers de l'Ozone sur les tissus organiques, et plus spécialement sur le sang mort, furent d'abord remarqués par M. Dugald Campbell, Pharmacien Analyste de l'Hôpital de Brompton pour la Consomption; et c'est à lui qu'est due la suggestion d'impregner d'Ozone l'huile de Foie de Morue, et autres, et de faire parvenir ainsi cet extraordinaire agent de vie dans les poumons des personnes délicates et atteintes de consommation, sans effort d'inhalation, et en proportions plus grandes que celles qui se trouvent dans l'atmosphère.

Les expériences faites avec l'Huile de Foie de Morue Ozonisée furent entreprises par feu le Dr. Theophilus Thomson, et son confrère, le Dr. Scott Allison, à l'Hôpital pour la Consomption, et les résultats détaillés en furent donnés dans un mémoire lu devant la Société Royale de Médecine et de Chirurgie de Londres.

Le succès dépassa leurs espérances les plus vives; la vitesse du pouls (l'indicateur le plus correct de la gravité de la maladie) fut, contre leur attente, réduite à son état normal, et des expériences subséquentes prouvèrent que d'autres symptômes favorables suivaient rapidement. L'appétit fut recouvré, des toux qui duraient depuis longtemps disparurent, le système général reprit de la force et de la vigueur, et non seulement des personnes délicates devinrent robustes et d'une bonne santé, mais *des malades aux premiers degrés de la consommation furent rendus à une santé parfaite*. Dans le fait, il est maintenant prouvé, sans doute possible, que l'Ozone est pour les personnes faibles, délicates et atteintes de consommation ce que le Quinquina est pour les malades de la fièvre—le spécifique le plus certain découvert jusqu'à présent.

M. BORWICK, 24 Chiswell-street, seul cessionnaire du brevet.

SAMUEL CLARKE'S *new Patent Pyramid Nursery Lamps and Food Warmers, with Porcelain Panakins, having Spouts.*

Nouvelles Lampes Pyramides pour Chambres d'Enfants et à Chauffer les Aliments, avec Vases de Porcelaine à bec, de SAMUEL CLARKE, brevetées.

No. 1 holds half-pint food, besides water; price 3s. 6d. each. No. 2 holds three-quarters pint food; price 5s. each. No. 3 holds one pint food; price 6s. Clarke's hot water lamps, price 2s. 6d. each. Clarke's pyramid light lamps, 9d. and 1s. each.

CAUTION.—*The Patentee begs to state that he can warrant the Food Warmers to answer the purpose for which they are recommended ONLY when the Pyramid Night Lights (9 hours) are burned in them.*

CLARKE'S pyramid night lights (9 hours) are increased in size, and give the most light, they are therefore best suited for nursery lamps: 8d. per box of 8 lights.

N.B.—All night lights not protected by a lamp are extremely dangerous, and should not be used.

The pyramid night lights burn best when newly made, and should be kept in a cool dry place.

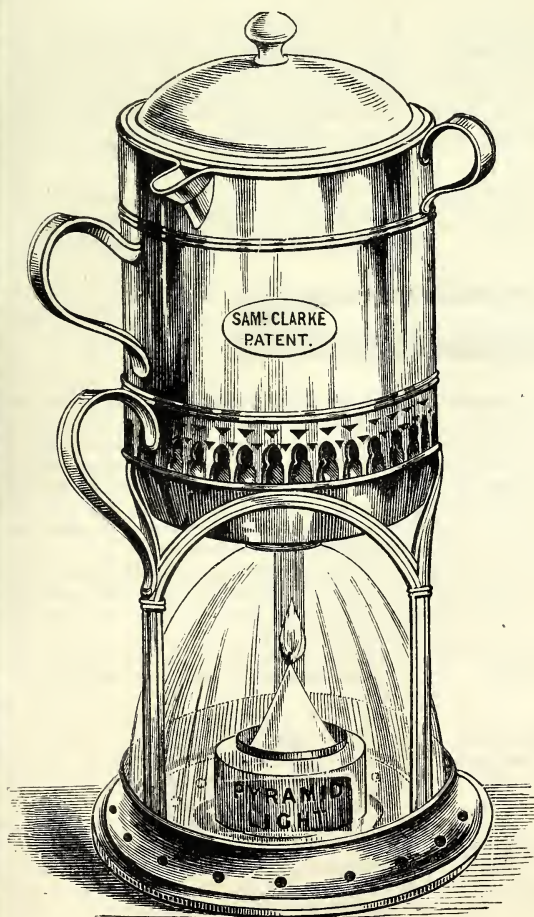
Le No. 1 contient une demi-pinte (29 centilitres) d'aliments en outre de l'eau; prix 3s. 6d. (4 fr. 35.) Le No. 2 contient trois quarts de pinte (42 centilitres) d'aliments; prix 5s. (6 fr. 25.) Le No. 3 contient une pinte (56 centilitres) d'aliments; prix 6s. (7 fr. 50.) Lampes à chauffer l'eau de Clarke, prix 2s. 6d. (3 fr. 10.) Lampes veilleuses pyramides de Clarke, 9d. et 1s. (90 les et 1 fr. 25.) chaque.

Avis.—*L'inventeur, breveté, fait observer qu'il ne peut garantir l'usage satisfaisant de ses Lampes à chauffer les aliments qu'autant qu'on y brûle ses Veilleuses Pyramides (durant 9 heures).*

Les veilleuses pyramides de Clarke (durant 9 heures) ont leur dimension augmentée, et donnent le plus de lumière; ce sont donc celles qui conviennent le mieux pour lampes de chambres d'enfants: 8d. (80 cen.) la boîte de 8 veilleuses.

N.B.—Toutes veilleuses non protégées par une lampe sont d'un usage extrêmement dangereux, et ne devraient point être employées.

Les veilleuses pyramides brûlent le mieux lorsqu'elles ont été récemment fabriquées, et doivent se conserver dans un endroit frais et sec.



FIELD, J. C. & J., *Patent Candle Works, Lambeth Marsh, London.*



1862



1851



1865

J. C. & J. FIELD were the introducers and first makers of paraffine candles in England (for which they obtained a Prize Medal at the Universal Exhibition in 1862); they are supplied to Her Majesty's Government, for the use of the military stations abroad, the Houses of Lords and Commons, &c. &c.

These candles are now furnished with FIELD's *patent self-fitting end*, and are made in various beautiful shades of colour.

J. C. et J. FIELD ont été les premiers à introduire et à fabriquer en Angleterre les bougies de paraffine (pour lesquelles ils ont obtenu une Médaille à l'Exposition Universelle de 1862), qui sont employées par la Gouvernement de Sa Majesté pour ses stations militaires outre mer, pour les Chambres des Lords et des Communes, etc. etc.

Ces bougies sont maintenant pourvues des *bouts coniques de FIELD* (brevetés), et se fabriquent en diverses belles nuances de couleur



Patentees and sole manufacturers of *patent self-fitting candles*, so constructed that the candles require no scraping, nor the use of paper; they *fit all-sized sockets* or candlesticks, *always remain perfectly upright*, and combine cleanliness, economy, and safety, and burn to the end.

These candles are made in all the usual sizes and qualities for chandeliers, table, or chamber use.

United Service Soap Tablets.—Purity of material and durability of perfume guaranteed.

In tablets,
three and
five to
the lb.



Free from
cocoa nut
oil.

Seuls fabricants brevetés des *bougies s'adaptant elles-mêmes au chandelier* (brevetés), fabriquées de façon qu'on n'ait besoin ni de les gratter, ni d'y ajouter du papier; elles *s'adaptent aux chandeliers* ou aux bobèches de tout calibre, et restent parfaitement droites; réunissant la *propreté, l'économie et la sûreté*, et brûlant jusqu'au bout de la mèche.

On fabrique ces bougies dans toutes les grandeurs et les qualités d'usage, tant pour les candélabres que pour la table, ou pour la chambre à coucher.

Pains de Savon, dit 'United Service Soap.'—Purité de matériel et durée de parfum sont garanties.

En pains,
trois et
cinq à la
livre.



Sans
l'huile de
coco.

Manufacturers of wax, spermaceti, and stearine candles, perfumed sealing wax of all colours and qualities, wax night-lights, bougies, and lighting wicks.

Fabricants de bougies de cire, de spermaceti et de stéarine, de cire à cacheter parfumée de toutes couleurs et qualités, de veilleuses de cire, de bougies, et d'allumette-mèches.

Paraffine and Patent Self-fitting Candle Works, Lambeth Marsh, London, S.

JOHNSON, MATTHEY, & CO., *Hatton Garden Works, London.*

Platinum Manufacturers. Refiners, Melters, and Assayers to the Bank of England.

(Platinum and Rare Metals, Group V. Class 40. Metallurgical and Chemical Preparations, Group V. Class 44.)

Prize Medals awarded for 'Excellence in the manufacture and preparations of Platinum and the rare metals, and for chemical products,' at the International Exhibitions, London, 1851; Paris, 1855; London, 1862; Dublin, 1865.

The principal objects exhibited by this firm in Class 40 are the following:—

A Platinum Boiler or Retort for the concentration of sulphuric acid, capable of rectifying 8 tons per diem. Value, 2,400*l*.

A second Platinum Boiler, for the same purpose, complete with syphon and all appurtenances, capable of rectifying 5 tons of sulphuric acid per diem. Value, 1,750*l*.

Several improvements are introduced in these boilers, but the chief feature is that they are manufactured without gold soldered joints, the whole boiler being as if made out of a single piece of metal, rendering them much stronger, more durable, and less expensive than those made on the old principle.

The metal employed in their manufacture is specially prepared of chemical purity.

The improvements in the syphons are also of some importance, the bayonet ball and socket joints greatly facilitating the removal of the syphon at any time, and doing away with the gun metal clamps hitherto used, which constantly required renewal.

Platinum Ingot for boiler making, of chemically pure metal, made in a single forging. Value, 1,100*l*.

Platinum Alembic for the use of mints, refineries, and chemical manufacturers. Chiefly for the separation and refining of gold and silver, but capable of adaptation to other purposes.

The economy of refining the precious metals in such apparatus is not only very great, but it is effected with much greater rapidity, certainty, and freedom from risk of accidents.

Platinum Tubes, soldered with pure platinum, can be made of any length or size, superior to those made with gold soldered joints, both in strength and wear, and superior to those made by pressure, in consequence of the metal not being subjected to the severe strain the pressed tubes have to undergo, which necessitates a much thicker metal being used than is required for ordinary purposes.

Platinum Pyrometer. Patent. An indicator which acts by the variation of heat. It is a novel application of the spiral coil of a compound lamina of two metals of unequal expansion by heat.

Platinum wire, sheet, foil, gauze, crucibles, capsules, sponge, gun vents. Preparations and compound salts, &c. &c.

Specimens of the rare metals in various forms. Palladium, iridium, rhodium, osmium, ruthenium, indium, magnesium, thallium, tellurium, chromium, titanium, manganese, &c. &c.

A series of 1 kilo (2 lbs.) each of most of the known precious, rare, and base metals, chemically pure and of symmetrical form.

A series exemplifying the two processes of refining and working bullion, showing the various forms in which the precious metals in their rough state reach this country, the metals and solutions of metals in the different stages of refining and precipitation, with the by-products and salts, and the pure metals as ultimately obtained and sent into the market for minting and other purposes in bars and grain.

A series of specimens of gold dust from nearly all the known sources of gold, showing their variations of character.

Specimens and preparations of the rare and precious metals.

Samples of sodium amalgam as employed under the patents of William Crookes, Esq., for the extraction of gold from ores, and the results in gold obtained from very careful working with and without its use.

These results are sufficiently surprising to warrant publication, the ore selected being a compound mineral from California, with which great difficulty had been experienced in working in the ordinary way.

The results obtained in Messrs. Johnson, Matthey, & Co.'s Works were as under:—

	oz. dwt. grs.
Produce by ordinary process of amalgamation . . .	per ton 2 16 0
Produce by sodium process of amalgamation . . .	„ 7 0 6
Produce by Assay . . .	„ 7 9 0

The trials were twice repeated, and the results obtained were absolutely uniform.

Many of the specimens in this case cannot have a definite value attached to them, but the total value exhibited may be estimated at 20,000*l*.

In the case Class 44 are exhibited chemical and metallurgical preparations, more especially of the precious metals. Nitrate of silver, in all commercial forms, chloride of gold, &c. &c., and a series of colours for decorative purposes manufactured by a new process, which have characteristics of harmlessness and brilliancy never before obtained.

McDOUGALL BROTHERS, *Manufacturing and Agricultural Chemists*, 11 *Arthur-street West*,
London. E.C., and Riga-street, Manchester.

Disinfectants, Sheep and Cattle Dressings, Manure, Chemicals, &c.

McDOUGALLS'

PATENT CARBOLIC ACID DISINFECTANTS

(in powder and fluid)

Combine the good effects of the two most powerful disinfectants and antiseptics known, carbolic and sulphurous acids. They are the cheapest and most efficient agents for sanitary purposes. Convenient for use, and free from any injurious ingredients.

McDOUGALLS'

PATENT CARBOLIC DISINFECTING SOAP

(white and dark qualities),

For toilet, cleansing and disinfecting purposes, and the destruction of insect life, without poison.

McDOUGALLS' CARBOLIC ACID,

In various qualities,

For disinfecting, medicinal, and manufacturing purposes.

McDOUGALLS' MANURE

For the sugar, beet, coffee, tobacco, tea, &c., plants.

McDOUGALLS' PATENT NON-POISONOUS SHEEP
 AND CATTLE DRESSINGS,

For the destruction of insects infesting animals, and healing cutaneous diseases.

McDOUGALLS'

PATENT PHOSPHATIC YEAST-SUBSTITUTE AND
 SELF-RAISING FLOUR,

For the production of all kinds of Bread and Pastry, without fermentation.

Pieric Acid, Hydrated Peroxide of Iron, Hyposulphite of Soda, Phosphate of Soda, Prepared Horn Piths, &c.

Chemicals and Drysalteries.

LES DÉSINFECTANTS À L'ACIDE CARBOLIQUE,

BREVETÉS, DE McDOUGALL,

Combinent les bons effets des deux plus puissants désinfectants et antiseptiques connus, les acides carbolique et sulphureux. Ce sont les agents les plus efficaces et les meilleur marché pour tous usages sanitaires. Commodes à employer, et ne contenant nul ingrédient nuisible.

SAVON DÉSINFECTANT À L'ACIDE CARBOLIQUE

DE McDOUGALL

(qualités blanches et foncées),

Pour la toilette, nettoyer et désinfecter, et détruisant les insectes, sans substance vénéneuse dans sa composition.

ACIDE CARBOLIQUE DE McDOUGALL,

De différentes qualités

Pour usages de désinfection, médicaux et de fabriques.

ENGRAIS DE McDOUGALL.

Pour les plantations de betterave à sucre, café, tabac, thé, etc.

APPAREILS DE PANSEMENT NON-VÉNÉNEUX POUR

MOUTONS ET BÊTES À CORNES DE McDOUGALL,

Détruisant les insectes qui infestent les animaux, et cicatrisant les maladies cutanées.

SUBSTITUT PHOSPHATIQUE DE LA LEVURE DE

BIÈRE, ET FARINE LEVANT D'ELLE-MÊME,

DE McDOUGALL,

Pour la confection de Pain et Pâtisserie de toutes sortes, sans fermentation.

Acide Pierique, Peroxide Hydraté de Fer, Hyposulphite de Soude, Phosphate de Soude, Moëlle de Corne Préparées, etc.

Produits Chimiques et Salaisons.

SAVORY & MOORE, *Chemists to the Queen, the Prince of Wales, the Emperor Napoleon III.,*
143 New Bond-street, London, w.

*Prize Medals at the International Exhibition
of 1851 and 1862.*

Specimens of Pancreatic Emulsions of solid fat, cod-liver oil, and lard oil, the new remedies for consumption.

Datura Tatula Extract, also cigars, cigarettes and tobacco of the same, for employment in the treatment of asthma.

Gelatine discs impregnated with drugs (Atropine, Calabar bean extract, &c.), for use in ophthalmic surgery.

A variety of chemical specimens and preparations of the British Pharmacopœia.

A pair of improved medical field panniers, a military medicine chest, and a medical field companion, designed by SAVORY & MOORE, and adopted by the Director-General of the Army Medical Department for the use of Her Majesty's Forces.

*Médaille à l'Exposition Internationale de 1851
and 1862.*

Spécimens d'Émulsions Pancréatiques de graisse solide, huile de foie de morue et huile de saindoux; les nouveaux remèdes pour la consommation.

Extrait de Datura Tatula; cigars, cigarettes et tabac de la même, pour l'emploi dans le traitement de l'asthme.

Discs gélatineux imprégnés de drogues (Atropine, extrait de fève de Calabar, etc.), pour l'usage de la chirurgie ophthalmique.

Plusieurs spécimens chimiques et préparations de la Pharmacopée Britannique.

Une paire de cacolets de campagne perfectionnés; une caisse à médicaments, militaire; et une trousse de campagne de l'invention de SAVORY & MOORE, et adoptée par le Directeur-Général du Département Médicale pour l'usage de l'Armée Anglaise.

SCHWEITZER, H., & CO.

Analytical Chemists, and Sole Manufacturers of Cacoatina, &c.,

Pharmaciens Analystes, et seuls Fabricants de Cacaotine, etc.

Cocoatina or antidyspeptic cocoa will bear the strictest chemical investigation. It is a pure preparation of the finest Caragua beans deprived of the excess of fatty matter and retaining the *natural delicate* flavour of the bean.

Cocoatina is largely recommended by the Faculty, and meets with universal approbation.

Large quantities of butter of cocoa being produced in the manufacture of cocoatina, H. S. & Co. are enabled to compete both in price and quality with the finest introduced from the continent.

The suppositories, &c., exhibited in their case (prepared with the cocoa butter) have been highly spoken of, and are of the best make.

Cocoatina is sold in packages at 1s. 6d., 3s., 5s. 6d., 10s. 6d., 20s. each.

Trade Lists on application.

La cacoatine ou cacao antidyspeptique soutiendra avec succès l'analyse chimique la plus rigoureuse. Elle est une préparation parfaitement pure des fèves de cacao de Caracas les plus fines, débarrassées de l'excès de matière grasse, et conservant l'arôme naturel si délicat qui les caractérise.

La cacoatine est fréquemment recommandée par la Faculté, et reçoit l'approbation générale.

Produisant de larges quantités de beurre de cacao dans la fabrication de leur cacoatine, H. S. ET C^{IE}. peuvent soutenir la concurrence pour cet article tant sous le rapport du prix que sous celui de la meilleure façon.

Les suppositoires, etc., exposés dans leur vitrine (préparés au beurre de cacao) ont reçu les plus grands éloges, et sont de la meilleure façon.

La cacoatine se vend en paquets de 1 fr. 90, 3 fr. 75, 6 fr. 90, 13 fr. et 25 fr. chaque.

Prix-courants du commerce sur demande.

CLASS XLVI.

EVANS, PARKER & SPARKE, & CO., *Avonside Tannery, Bristol.*

- 1st. British army sole leather.
 2ndly. Engine backs, for colliery pumps, &c.
 3rdly. Ordinary sole leather.

P. & S. EVANS & Co. direct especial attention to their Sole Leather, to the manufacture of which they bring many years' experience.

A very large proportion of their No. 1 leather is annually used by the British Government.

Prices during the past year, of No. 1	d.	d.
"	21	to 22 per lb.
"	2	20 to 21 "
"	3	16½ to 17½ "

1°. Cuir à semelles employé pour l'armée anglaise.

2°. Dos de machines, pour houillères, pompes, etc.

3°. Cuir à semelles ordinaire.

P. et S. EVANS et C^{ie}. appellent l'attention spécialement sur leur Cuir à Semelles, à la manufacture duquel ils consacrent une expérience fruit de nombreuses années de fabrication.

Une très-grande partie de leur Cuir No. 1 est annuellement employée par le Gouvernement Anglais.

Prix durant le cours de l'année dernière de—

No.	Fr. c.	Fr. c.
No. 1	2 20	à 2 30 par livre—0,454 k.
No. 2	2 10	„ 2 20 „ „
No. 3	1 70	„ 1 80 „ „

1. Sohlenleder für die Britische Armee.
 2. Maschinenrücken, für Kohlengruben-Pumpen u. s. w.

3. Gewöhnliches Sohlenleder.

P. & S. EVANS & Co. machen besonders auf ihr Sohlenleder aufmerksam, für dessen Manufactur sie die Erfahrung vieler Jahre besitzen.

Ein sehr grosser Theil ihres Leders No. 1 wird alljährlich von der Britischen Regierung gebraucht.

Preise, während des vergangenen Jahres, von:

No.	Sgr. Pf.	Sgr. Pf.
No. 1	17 6	bis 18 4 per Pfund.
No. 2	16 8	„ 17 6 „
No. 3	13 9	„ 14 7 „

1°. Cuoio da suole pell' armata britannica.

2°. Dorsale di macchina, per pompe di miniera di carbonfossile, ecc.

3°. Cuoio da suole ordinarie.

P. E S. EVANS E CA. invitano attenzione speciale al loro Cuoio da Suole, nella manifattura del quale portano un' esperienza di molti anni.

Grandissima proporzione del loro cuoio No. 1 è usato annualmente dal Governo Britannico.

Prezzi durante l' anno scorso—

No.	d.	d.	Lit. cl.	Lit. cl.
No. 1	21	a 22	pari a 2 10	a 2 20 per libra.
No. 2	20	„ 21	„ 2 00	„ 2 10 „
No. 3	16½	„ 17½	„ 1 65	„ 1 75 „

WEBB & SON, *Combs Tannery, near Stowmarket, Suffolk, England,*

Tanners, Curriers, Fellmongers, Glove Leather Dressers, Wool Merchants, and Manufacturers of LEATHER MACHINE BANDS, FIRE BUCKETS, AND HOSE.

Tanneurs, Corroyeurs, Marchands de Peaux, Apprêteurs de Peaux pour Gants, Marchands de Laine et Fabricants de Bandes pour Machines, Seaux et Tuyaux pour Pompes à Incendies, en Cuir.

The bands are stretched by powerful machinery, and carefully selected for exportation to all climates.

India-rubber and gutta-percha bands and tubing.

Agents at Hamburgh—Messrs. W. MONNINGTON & Co.; *Amsterdam*—Messrs. LANDRÉ & GLINDERMAN. *London Office*—No. 11 Leadenhall-street, E.C.

Price lists on application to the manufactory, or at our stand, Class 46, Group V., Paris Exhibition.

Les bandes sont étirées au moyen de machines puissantes, et soigneusement choisies pour exportation dans tous les climats.

Bandes et tubes en caoutchouc et gutta-percha.

Agents à Hambourg—MM. MONNINGTON ET C^{ie}; à *Amsterdam*—MM. LANDRÉ ET GLINDERMAN. *Bureaux à Londres*—No. 11 Leadenhall-street, E.C.

Prix-courants sur demande à notre fabrique, ou à notre exposition, Classe 46, Group V., Exposition de Paris.

Die Riemen sind durch kräftige Maschinen gestreckt und sorgfältig für jedes Clima aus-gesucht.

Caoutchouc- und Guttapercha-Riemen und Röhren.

Agenten in Hamburgh—Die Herren MONNINGTON & Co.; *Amsterdam*—Die Herren LANDRÉ & GLINDERMAN; *London Comptoir*—11 Leadenhall-street, E.C.

Preislisten werden auf Verlangen in der Fabrik oder an unserem Ausstellungsplatze, Classe 46, Gruppe V., der Pariser Ausstellung abgegeben.

Le bande sono stirate da meccanismi potenti e scelte accuratamente per esportazione a tutti i climi.

Bande e tubi di gommelastica e gutta-perca.

Agenti ad Amburgo—Messrs. W. MONNINGTON E CIA.; *Amsterdam*—LANDRÉ E GLINDERMAN; *Ufficio in Londra*—No. 11 Leadenhall-street, E.C.

Prezzi correnti a richiesta alla fabbrica o all' Esposizione a Parigi, Classe 46, Gruppo V.

GROUP VI.—CLASS XLVII.

JONES & LEVICK'S PATENT COAL-CUTTING
MACHINE

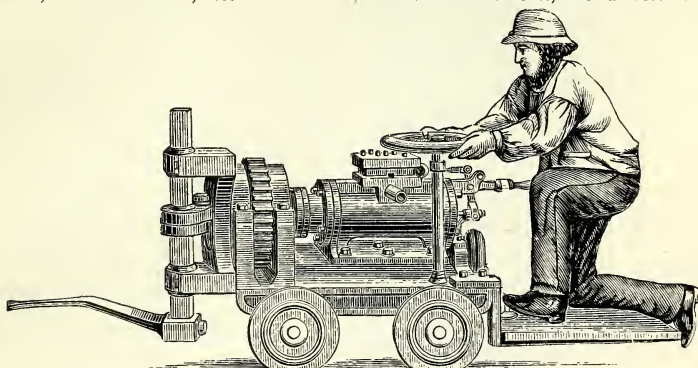
Is constituted to work, or 'hole,' the coal at any angle, from the horizontal to the vertical, and of driving headings. It is simple and substantial in its construction, and does not easily get out of order. It has worked in very hard coal at the rate of twelve yards an hour. It is worked by compressed air, the exhaust of which assists ventilation, and cools the mine.

Agent in Paris, Mons. A. Maire, Ingénieur, 19 Boulevard Malesherbes; for Germany, Messrs. Barbe, Son, & Co., Nancy; in London, Fred. Levick & Co., 4 Charlotte-row, E.C.

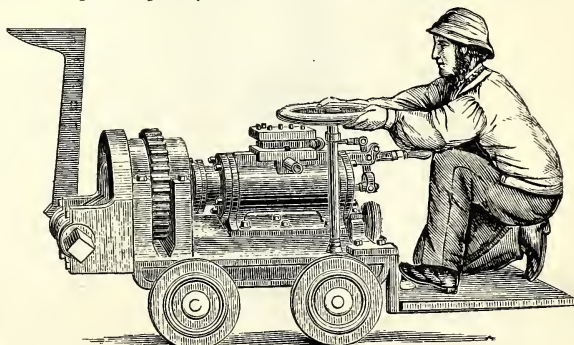
MACHINE À COUPER LA HOUILLE, BREVETÉE,
DE JONES & LEVICK

est construite pour travailler, ou 'perforer,' la houille à tout angle, de l'horizontal au vertical, à l'effet de pratiquer des galeries. Sa construction est à la fois simple et solide, et elle ne se dérange que difficilement. Elle a fonctionné dans de la houille très-dure à raison de douze yards (10,98 m.) par heure. Enfin elle est mue par l'air comprimé, dont l'épuisement aide la ventilation et rafraîchit la mine.

Agent à Paris, M. Maire, Ingénieur, 19 Boulevard Malesherbes; pour l'Allemagne, MM. Barbe, Fils, et Cie., à Nancy; à Londres, Fred. Levick et Cie., 4 Charlotte-row, E.C.



Pick in position for Holeing—*Pic en position pour perforer*—Spitzhammer in Position zum Bohren—*Piccone in posizione per traforare*.



Vertical Cut downwards—*Coupe verticale de haut en bas*.
Verticaler Schlag niederwärts—*Per Taglio perpendicolare*.

JONES & LEVICK'S
PATENTIRTE KOHLENHAU-
MASCHINE

ist dazu bestimmt, die Kohle auf irgend einen Winkel, vom horizontalen bis zum verticalen, zu arbeiten, oder 'zu bohren,' und zum Treiben von Stollen. Sie ist einfach und compact in ihrer Construction und gerathet nicht leicht in Unordnung. Sie hat in sehr harter Kohle in dem Verhältniss von zwölf Yard per Stunde gearbeitet. Sie ist durch compressirte Luft getrieben, deren Entleerung die Ventilation befördert und die Grube kühl macht.

Agent in Paris: Herr A. Maire, Ingenieur, 19 Boulevard Malesherbes; für Deutschland: Herren Barbe, Sohn & Co., Nancy; in London: Fred. Levick & Co., 4 Charlotte-row, E.C.

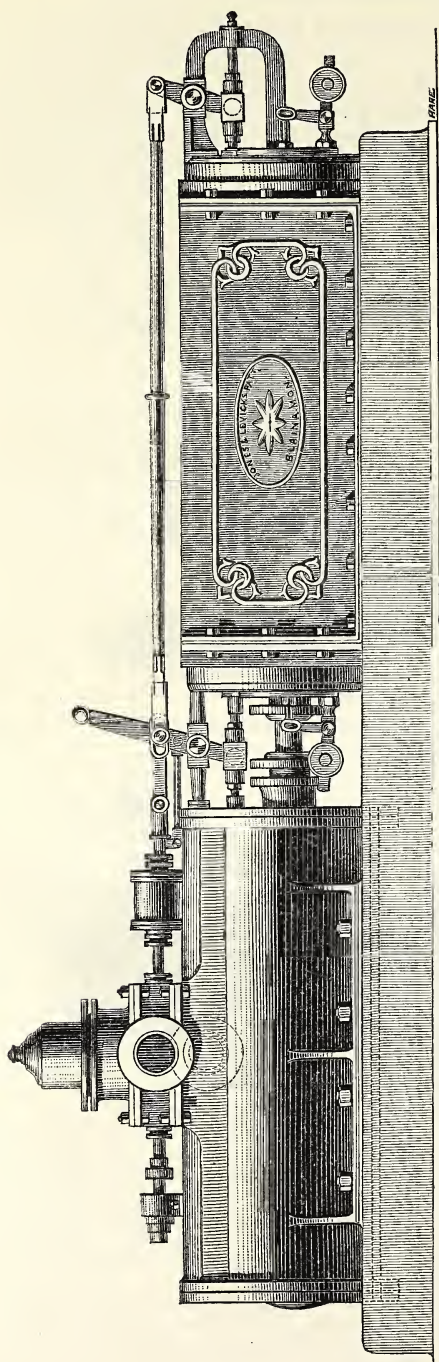
MACCHINA TAGLIA CARBON FOSSILE
(PATENTATA)

è costruita in modo da operare, o 'traforare,' il carbon fossile a qualunque angolo,

dall' orizzontale al verticale, e penetrare le testate. E semplice e solida nella costruzione, e non si guasta facilmente. Ha operato su carbon fossili durissimi in ragione di dodici yarde all' ora. Agisce ad aria compressa, l' esaurimento della quale aiuta la ventilazione, e raffresca la miniera.

Agente in Parigi, M. A. Maire, Ingegnere, 19 Boulevard Malesherbes; pella Germania, Sgri. Barbe, Figlio & Cia., Nancy; in Londra, Fred. Levick & Cia., 4 Charlotte-row, E.C.

JONES & LEVICK'S PATENT AIR-COMPRESSING ENGINE



Has the advantage of simplicity of construction with small cost, of the small amount of power to overcome the friction of its moving parts, and is not affected by the production of heat in compressing the air. It acts as a regulator, adapting its speed to the consumption of air underground. It occupies but a small space, and needs only a slight foundation.

Agent in Paris, Mons. A. Maire, Ingénieur, 19 Boulevard Malesherbes; for Germany, Messrs. Barbe, Son, & Co., Nancy; in London, Fred. Levick & Co., 4 Charlotte-row, E.C.

MACHINE A COMPRIMER L'AIR, BREVETÉE,
DE JONES ET LEVICK

combine l'avantage de la simplicité dans sa construction avec celui du bon marché, n'a besoin que d'une faible somme de force motrice pour vaincre le frottement de ses pièces mouvantes, et n'est point affectée par la production de la chaleur en comprimant l'air. Elle agit aussi comme régulateur, adaptant la rapidité de sa marche à la consommation d'air sous terre. Enfin elle n'occupe que peu de place, et n'a besoin que d'une légère fondation.

Agent à Paris, M. Maire, Ingénieur, 19 Boulevard Malesherbes; pour l'Allemagne, MM. Barbe, Fils, et Cie., à Nancy; à Londres, Fred. Levick et Cie., 4 Charlotte-row, E.C.

JONES & LEVICK'S LUFT-COMPRESSIONS-
MASCHINE

hat den Vortheil der Einfachheit der Construction, mit weniger Auslage, der geringen Dampfkraft, um die Reibung der bewegenden Theile derselben zu überwinden, und die Erzeugung von Hitze bei der Compression der Luft wirkt nicht auf dieselbe ein. Sie wirkt wie ein Regulator, indem sie ihre Schnelligkeit dem unterirdischen Verbräuche der Luft anpasst. Sie nimmt nur wenig Platz ein und braucht bloss ein leichtes Fundament.

Agent in Paris, Mons. A. Maire, Ingénieur, 19 Boulevard Malesherbes; in Deutschland, Messrs. Barbe, Sohn & Co., Nancy; in London, Fred. Levick & Co., 4 Charlotte-row, E.C.

MACCHINA PER COMPRIMER L'ARIA
(PATENTATA)

ha il vantaggio della semplicità di costruzione con tenue spesa, quello della piccola quantità di forza necessaria per superare l'attrito delle sue parti moventi, e non risente alcun effetto dallo sviluppo del calorico nel comprimere l'aria. Agisce come regolatore, adattando la propria celerità al consumo dell'aria sotterra. Non occupa che un piccolo spazio, e non abbisogna che di leggera fondamenta.

Agente in Parigi, M. A. Maire, Ingegnere, 19 Boulevard Malesherbes; in Germania, Sigri. Barbe, figlio e Cia., Nancy; in Londra, Federico Levick e Cia., 4 Charlotte-row, E.C.

CLASS XLVIII.

BILLANCOURT AGRICULTURAL EXHIBITION.

The Exhibition on the Island of Billancourt has been organised for the purpose of showing various agricultural operations which could not be carried on within the limits of the Champ de Mars. The following is a general outline. Examples of operations at farm-homesteads, such as thrashing; preparation of food for animals; manufacture of agricultural produce, as cheese, butter, sugar; distillation. Examples of field-culture, as ploughing, drilling, hoeing crops, reaping, harvesting. Examples of drainage, growth of various crops, arboriculture, vine-culture, &c.

These processes will be shown daily or periodically during the entire time the Exhibition is open. In addition to these, however, special competitions and trials of agricultural machines are fixed to take place, for the purpose of enabling the Juries to make their awards. Ordinary implements will be worked on the Island of Billancourt and the adjoining Island of Seguin. Steam-ploughs at the Imperial Farm at Vincennes (about 2 miles from Paris). Reaping and mowing-machines at the Imperial Farm at Fougilleuse (about $3\frac{1}{2}$ miles from Paris).

Programme.

APRIL.

1st Fortnight.—Ploughs of all kinds, hydraulic machines, steam engines.

2nd Fortnight.—Steam ploughs, harrows, rollers, weeding machines, scarifiers, and apparatus for the preparation of clay and the manufacture of drainage pipes.

MAY.

1st Fortnight.—Drills and manure distributors, hemp and flax machines, vehicles, harness, weighing machines, churns, and dairy utensils.

2nd Fortnight.—Mowing, raking, hay-making machines, and other apparatus intended for hay-harvesting purposes, as well as for trussing, compressing, and preserving hay.

JUNE.

1st Fortnight.—Competitive trials of farriery, and examination of specimens of agricultural establishments.

2nd Fortnight.—Chaff-cutting and root-cutting machines, horse hoes, moulding ploughs (butteurs), mills.

JULY.

1st Fortnight.—Shearing apparatus.

2nd Fortnight.—Reaping machines and cereal harvesting apparatus.

AUGUST.

1st Fortnight.—Thrashing machines, and apparatus for winnowing and preserving grain.

2nd Fortnight.—Portable ovens, apparatus for cooking vegetables, steeping linen, and manufacturing manure.

SEPTEMBER AND OCTOBER.

Examination of specimens of various agricultural products and processes.

EXHIBITION OF LIVE STOCK.

Exhibitions of Live-Stock (divided into 14 categories) will be held fortnightly, the same as the trials of implements. British cattle, sheep, and pigs, however, cannot be admitted, in consequence of the cattle plague.

Horses and poultry and dogs will be received.

Programme.

APRIL.

1st Fortnight.—Sheep for the meat market—Breeding animals.

2nd Fortnight.—Fat stock.

MAY.

1st Fortnight.—Breeds suitable for dairy purposes—Breeding animals.

2nd Fortnight.—Sheep of breeds for the production of wool—Breeding animals.

JUNE.

1st Fortnight.—Draft horses.

2nd Fortnight.—Poultry.

JULY.

1st Fortnight.—Draft cattle. (Races Bovines de travail)—Breeding animals.

2nd Fortnight.—Saddle and carriage horses, hunters, ponies, &c.

AUGUST.

1st Fortnight.—Dogs.

2nd Fortnight.—Yoke oxen. (These must be sent in pairs, and trained either to the yoke or

to the collar. Special trials will be held for the purpose of testing their aptitude for work.)

SEPTEMBER.

1st Fortnight.—Pigs—Breeding animals.

2nd Fortnight.—Asses, mules, and animals of the mule species.

OCTOBER.

1st Fortnight.—Fat stock.

2nd Fortnight.—Different animals which have been, or might be, acclimatised.

The organisation of the agricultural portion of the Universal Exhibition, both at the Champ de Mars and at Billancourt, has been carried out under the advice of the following commission :—

MM. le Comte DE SAINT-LÉGER (Albert), *Président*; DUCLOS, *Vice-Président*; DU PRE (Belgique), *VicePrésident*; Beckwith (Etats-Unis d'Amérique); de Behr; Borie (V.); Brandreth Gibbs (Angleterre); Decauville; Giordano (Italie); Hüffer (Prusse); Lesage; Magne; Pluchet; Prillieux; Tisserand; Trouseau (G.); Van den Broeck (Pays-Bas); LE PLAY (Albert), *Secrétaire*.

The British portion has been entrusted to the direction of MR. BRANDRETH GIBBS.

LIST OF BRITISH EXHIBITORS.

ASHBY & JEFFERY, Stamford, Lincolnshire
ATMOSPHERIC CHURN COMPANY, 119 New Bond-street, London

ALLEN, E. E., 40 Parliament-street, Westminster
AMIES, BARFORD & Co., Peterborough, Northamptonshire
BARROWS & CARMICHAEL, Banbury, Oxfordshire
BAWDEN, PETER, 49 Norland-square, Nottinghill, London
BRIGHAM & BICKERTON, Berwick-on-Tweed
BEVERLEY IRON AND WAGGON COMPANY (Limited), Beverley, Yorkshire
BENTALL, E. H., Heybridge-works, Maldon, Essex
BRABY, JAMES & SON, 42 Newington-causeway, London
BOWER, GEO., London, and St. Neots
CLAYTON, SHUTTLEWORTH & Co., Lincoln
COLEMAN & MORTON, Chelmsford, Essex
CLAYTON, HENRY & Co., Woodfield-road, Harrow-road, London
DEAN, JOHN, Woodstock, Oxfordshire
DELL, W. R., 72 Mark-lane, London
GARRETT, R. & SONS, Leiston-works, Suffolk
GREEN, THOMAS & SON, Leeds and London
HOWARD, J. & F., Bedford
HAYES & SON, Stamford
JAMES, ISAAC, Cheltenham
MARSHALL, SONS & Co. (Limited), Gainsboro'
NICHOLSON, WM. N., Newark
PICKSLEY, SIMS & Co., Leigh, near Manchester
PENNEY & Co., 16 Broadgate, Lincoln
RANSOMES & SIMS, Orwell-works, Ipswich
ROBEY & Co. (Limited), Lincoln
RUSTON, PROCTOR & Co., Lincoln
RICHES & WATTS, Norwich
SHANKS, ALEXANDER & SON, Dens Iron-works, Arbroath
SMYTH, JAMES & SONS, Peasenhall, Suffolk
SAMUELSON & Co., Banbury
THOMSON, R. W., 3 Moray-place, Edinburgh

ASHBY & JEFFERY, Rutland-terrace Iron Works, Stamford, England.

Hay Machines, Horserakes, Steam Engines, Thrashing Machines, Chaff Cutters, &c.

HAYMAKERS.—ASHBY & JEFFERY'S patent haymaker is one of the most useful machines in the world. One of these machines will do as much work as 20 labourers.

ASHBY AND JEFFERY'S haymaker has taken the highest prize of 5*l.* by the Royal Agricultural Society of England, *five times*; of the Royal Society of Ireland, *five times*; of the Royal Society of Scotland, *four times*; the highest prize Grand Gold Medal by the French Government at Paris, 1860; numerous other prizes in France, England, Belgium, Holland, and Austria; also at the Great Exhibitions of London, Paris, Vienna, Hamburg, and Dublin—altogether 78 prizes have been awarded to this Haymaker.

PRICES.

	£	s.
No. 5. The York Haymaker, 7ft. wide .	10	10
„ 8. The Albert Haymaker, 7ft. wide .	12	12
„ 7. The Victoria Haymaker, 7ft. 6in.	13	13
„ 6. The Palmerston Haymaker, 8ft.	14	14

All have the reversing motion. Wire screens for Nos. 5, 7, and 8, 12*s.* 6*d.* each; No. 6, 15*s.*

HORSE RAKES.—ASHBY & JEFFERY'S patent horserake has taken 38 prizes and medals.

Price, 7*l.* 10*s.*, 8*l.* and 8*l.* 5*s.*; if with seat 30*s.* extra.

STEEL HAND RAKES ON WHEELS, on the principle of the horserake, price 2*l.*

SMALL PORTABLE STEAM ENGINES, specially adapted for small farms, very cheap and simple, and easily managed. Prices, 2½-horse power, 86*l.*; 3-horse, 96*l.*; 4-horse, 128*l.*; 5-horse, 140*l.*

COMBINED THRASHING MACHINES suitable for small farmers, price 45*l.*, 50*l.*, and 55*l.*

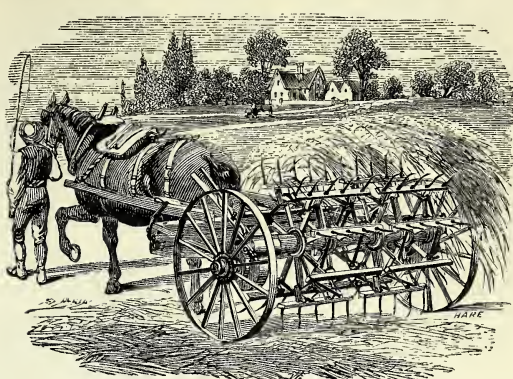
CHAFF CUTTERS.—New Machines on wrought-iron frame and legs, very easy to work, and very cheap. Price: 3*l.* 17*s.* 6*d.*, 4*l.* 17*s.* 6*d.*, and 11*l.* 11*s.*

STONE FLOUR MILLS, to grind corn, maize, &c. for cattle. Price 23*l.*

ONE HORSE GEAR WORKS, with intermediate motion included. Price 9*l.* 9*s.*

FANEUSES.—La faneuse, brevetée, de ASHBY ET JEFFERY est une des machines les plus utiles qui existent au monde pour économiser du travail dans la récolte des foin; une de ces machines fera autant d'ouvrage que 20 ouvriers, et d'une façon beaucoup plus efficace; le foin étant fait plus rapidement est de meilleure qualité.

LA FANEUSE de ASHBY ET JEFFERY a remporté le plus haut prix—5 livres—de la Société Royale d'Agriculture d'Angleterre, *cinq fois*; de la Société Royale d'Irlande, *cinq fois*; de la Société Royale d'Ecosse, *quatre fois*; le plus haut prix du Gouvernement Français—la Grande Mé-



daille en Or—en 1860; de nombreux autres prix en France, Angleterre, Belgique, Hollande et Autriche; ainsi qu'aux Grandes Expositions de Londres, Paris, Vienne, Hambourg, et Dublin—en un mot, 78 prix remportés attestent le mérite de cette Faneuse.

PRIX.

Frs. Ces.

No. 5. La Faneuse York . . .	262	50
„ 8. La Faneuse Albert . . .	315	0
„ 7. La Faneuse Victoria . . .	341	25
„ 6. La Faneuse Palmerston . . .	367	50

Toutes ont le mouvement en sens inverse. Écrans en fil métallique pour les Nos. 5, 7 et 8, 15 frs. 65 c. chaque; No. 6, 18 frs. 75 c.

RÂTEAUX À CHEVAL.—Le râteau à cheval, breveté, de ASHBY ET JEFFERY, a remporté 38 prix et médailles.

Prix 187 frs. 50 c.; 200 frs. et 206 frs. 25 c.; avec siège, 37 frs. 50 c. extra.

RÂTEAUX À MAIN EN ACIER, sur roues, d'après le principe du râteau à cheval; prix, 50 frs.

PETITES MACHINES À VAPEUR LOCOMOBILES, spécialement adaptées à l'usage des fermes de peu d'étendue, très-bon marché et très-simples, Prix: de 2½ chevaux, 2,150 frs.; de 3 chevaux, 2,400 frs.; de 4 chevaux, 3,200 frs.; de 5 chevaux, 3,500 frs.

MACHINES À BATTRE, combinant battage, criblage, convenant aux petits fermiers, prix, 1,125 frs.; avec godets d'élévation, 125 frs. extra.

HACHE-PAILLES.—Nouvelles machines sur charpente et pieds en fer forgé, très-facile à manœuvrer, et très-bon marché. Prix: 96 frs. 90 c.; 121 frs. 90 c.; 264 frs.

MOULINS À FARINES À MEULE, pour moudre le grain, le maïs, etc., pour les bestiaux. Prix, 575 frs.

MANÈGE À UN CHEVAL, mouvement intermédiaire compris. Prix, 256 frs. 25 c.

Catalogues in French or German free on application.

THE BEVERLEY IRON & WAGGON COMPANY (LIMITED), *Beverley, Yorkshire, England.*

Patent Reaping Machine, with Double Self-Acting Swathe-Delivery.

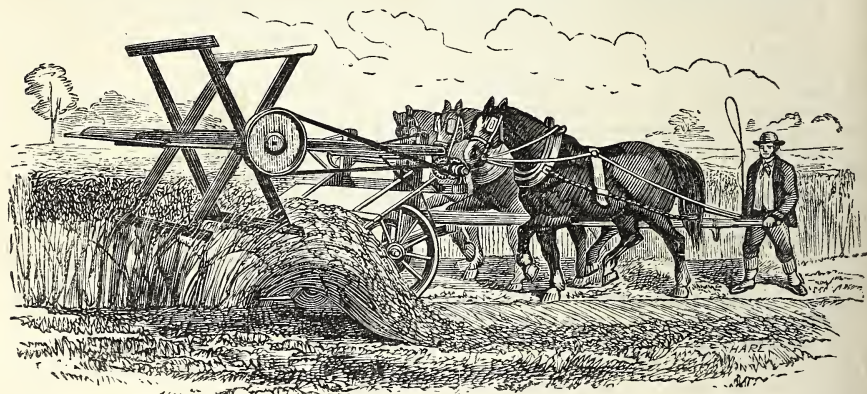
Machine à Moissonner, Brevetée, avec double 'self-acting' système à Délivrer les Andains.

Awarded the First Prize by the Royal Agricultural Society of England, 1861 (it took less draught and cut one-third more Corn than any other with which it competed), and by the Yorkshire Agricultural Society, 1866.

The horses follow the machine, and propel it by means of a pair of shafts, to the end of which they are harnessed by common plough whippetrees. The horses soon become accustomed to follow the machine, and will do so readily when they feel it yield to their efforts. The man walks behind them to steer, and owing to the length of the shafts, he has perfect command over the machine, and can easily guide it in any direction. The power is exercised directly upon the work; and the disadvantages of the side-draught used in all other reapers yet brought before the public, are entirely avoided.

A remporté le Premier Prix de la Société Royale d'Agriculture d'Angleterre, 1861 (elle exigea moins de tirage et coupa un tiers de plus de grain que toute autre machine de cette nature avec laquelle elle concourait), et de la Société d'Agriculture du Yorkshire, 1866.

Les chevaux suivent la machine, et la font mouvoir au moyen d'une paire de brancards, à l'extrémité desquels ils sont attelés par un palonnier de charrue ordinaire. Ils s'habituent bientôt à suivre la machine, et le feront sans difficulté quand ils sentiront qu'elle cède à leurs efforts. Le conducteur marche derrière pour la manœuvrer, et possédant, grâce à la longueur des brancards, un contrôle parfait sur elle, il peut la guider facilement dans toutes les directions. La puissance est ainsi directement appliquée au travail à exécuter, et les inconvénients du tirage de côté, usité dans toutes les autres moissonneuses présentées jusqu'à ce jour au public, sont entièrement évités.



This machine will pass complete through almost any gateway, commence cutting without having a path prepared, and deliver on either side, which enables it to work both up and down the same side of, or all round the crop, as circumstances may require. It is very compact, and particularly adapted for large farmers, as it will cut with ease from 20 to 30 acres per day.

It has been extensively used with the greatest success by many leading agriculturists for six seasons, and has had several important improvements added during the harvest of 1866.

Price of the three-horse reaping machine, to cut 7 ft. 6 in. wide, with two complete knives, six spare cutters, screw keys, &c., 42l.; and of the smaller machine, to be worked by two horses, to cut 5 ft. 2 in. wide, 37l.

Cette machine passera, complètement équipée, par presque toute entrée, commencera à couper sans avoir un chemin préparé, et délivrera des deux côtés, ce qui lui permet de travailler également en montant et en descendant sur un même côté, ou tout autour, de la récolte, selon que les circonstances peuvent le demander. Elle est très-compacte, et convient particulièrement aux besoins des grands fermiers, attendu qu'elle moissonnera facilement de 8 à 12 hect. par jour.

Cette moissonneuse a été largement employée, avec le plus grand succès, par nombre des principaux agriculteurs durant six saisons, et a eu l'addition de plusieurs perfectionnements importants durant la moisson de 1866.


Prix de la machine à moissonner à trois chevaux, de 7 pieds 6 pouces de coupe en largeur — 2 m. 29 c.—avec deux couteaux complets, six coupleurs de réchange, clefs à vis, etc., 1,060 frs.; et pour deux chevaux, de 5 pieds 2 pouces — 1 m. 58 c.—de coupe en largeur, 925 frs.

Authorized by The Fair Price Endorse


FOR GOOD WORKMANSHIP AND THE PRINCIPAL LANDOWNERS & AGRICULTURALISTS THROUGHOUT EUROPE & THE COLONIES AND PRACTICAL SUCCESS

R. GARRETT & SONS

ENGINEERS, BOILER MAKERS & AGRICULTURAL MACHINISTS




LEISTONWORKS



SUFFOLK ENGLAND.

ILLUSTRATED DESCRIPTIVE CATALOGUES

IN ENGLISH, FRENCH, GERMAN, ITALIAN & SPANISH.





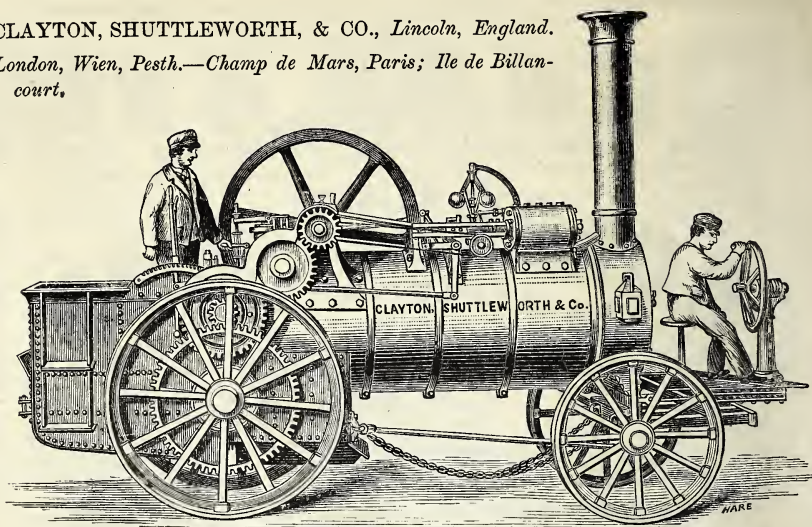
Pour les Prix et d'autres renseignements S'adresser a

M. TH. PILTER

No. 9 Rue Fénélon, Place Lafayette, Paris.

K

CLAYTON, SHUTTLEWORTH, & CO., *Lincoln, England.*
London, Wien, Pesth.—Champ de Mars, Paris; Ile de Billancourt.



IMPROVED TRACTION ENGINES.

The above engraving represents one of C., S., & Co.'s Traction Engines, which have been designed for driving machines of any kind that have frequently to be moved from place to place, in order to render them independent of horses for transport. These traction engines can propel themselves over any ordinary road, with a full set of steam ploughing tackle, a thrashing machine and straw elevator, or other portable machinery attached.

In arsenals, dockyards, mining and timber districts, they will be found especially useful for drawing heavy loads.

MACHINES À VAPEUR AUTOMOBILES PERFECTIONNÉES.

La planche ci-dessus représente une des automobiles de C., S. et Cie., construite pour faire marcher et remorquer les machines de toutes sortes qu'on est obligé de faire voyager fréquemment d'un lieu à l'autre, et les affranchir ainsi du besoin de chevaux pour leur transport. Ces automobiles, peuvent se mouvoir sur toute route ordinaire, en ayant à leur remorque tout un attirail de charrue à vapeur, une machine à battre avec son élèveur à paille, ou toute autre machine portative.

On les trouvera spécialement utiles pour traîner de lourdes charges dans les arsenaux de marine et autres, ainsi que dans les districts où sont exploitées des mines et des forêts.

VERBESSERTE STRASSEN-LOCOMOTIVE.

Der obige Holzschnitt stellt eine von C., S. & Co.'s Strassen-Locomotiven dar, welche bestimmt sind, Maschinen irgend welcher Art zu treiben, welche häufig von Ort zu Ort transportirt werden müssen, und sie unabhängig von Pferden für ihren Transport zu machen. Diese Strassen-Locomotiven laufen auf irgend einer gewöhnlichen Fahrstrasse, mit angehängtem vollen Satz von Dampfpflügergeräthschaften, einer Dreschmaschine und Strohelevator oder anderer dazu gehörenden Maschinerie.

In Arsenalen, Schiffswerften, Bergbau- und Wald-Districten werden sie besonders nützlich für das Fortschaffen von schweren Lasten gefunden werden.

MOTORI A TRAZIONE PERFEZIONATI.

L' incisione rappresenta uno dei Motori a Trazione di C., S. e Cia. immaginati per tirare macchine di qualsiasi specie che si debbano frequentemente muovere da un luogo all' altro acciò renderle indipendenti dai cavalli pel trasporto. Questi motori a trazione possono impellere se stessi su qualunque strada ordinaria con un fornimento completo di attrazzi aratori a vapore, trebbiatori e solleva-paglia, ed altri meccanismi portatili attaccati.

Negli arsenali, cantieri, in località di miniere, di legname grosso, riusciranno specialmente utili per tirare cariche gravi.

Horse-Power Chevaux de Vapeur Pferdekraft Forza di Cavalli	With one Cylinder A un Cylindre Mit einem Cylinder Con un Cilindro	Price Prix Preis Prezzo	Horse-Power Chevaux de Vapeur Pferdekraft Forza di Cavalli	With two Cylinders A deux Cylindres Mit zwei Cylindern Con due Cilindri	Price Prix Preis Prezzo
8	• • • •	£340	10	• • • •	£390
10	• • • •	£370	12	• • • •	£440
			14	• • • •	£480

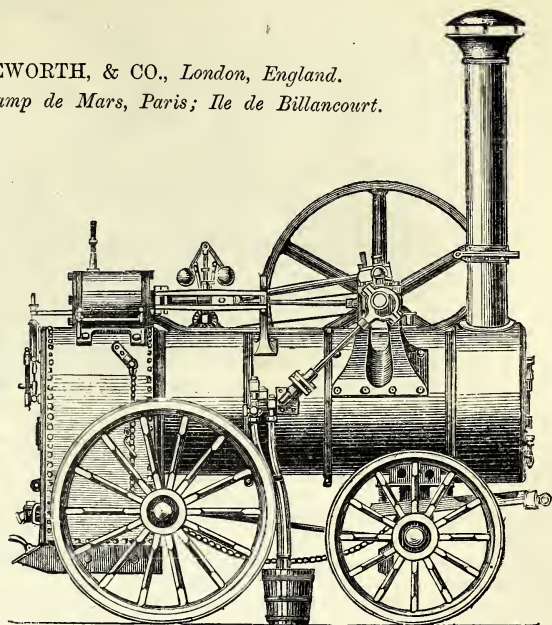
CLAYTON, SHUTTLEWORTH, & CO., *London, England.*

London, Wien, Pesth.—Champ de Mars, Paris; Ile de Billancourt.

**PORTABLE STEAM ENGINES, from
4 to 30 horse-power.**

For driving agricultural and other portable or fixed machinery these engines are now in general use in all parts of the world: C., S. & Co. having sold upwards of 7,500 engines, about half of which large number have been sent to the colonies and various continental countries.

For prices, delivered at shipping ports, see below. Further particulars on application to their representatives at the Exhibition, or to any of their establishments, as above, by letter.



LOCOMOBILES À VAPEUR, de 4 à 30 chevaux.

Ces machines sont maintenant d'un usage général dans toutes les parties du monde pour faire marcher tous instruments de travail, agricoles et autres, portatifs ou fixes: C., S. & Cie. ayant déjà vendu plus de 7,500 des dites machines, et expédié environ la moitié de cette large quantité dans les colonies et divers pays du continent. Pour les prix, délivré aux ports d'expédition, voir ci-dessous. Pour plus amples détails s'adresser à leurs représentants à l'Exposition, ou à n'importe lequel de leurs établissements, comme ci-dessus, par lettre.

**LOCOMOBILE DAMPFMASCHINE, von 4 bis
30 Pferdekraft.**

Diese Dampfmachines werden nun in allen Theilen der Welt zum Treiben von Agricultur- und anderer transportablen oder stehenden Maschinerie allgemein gebraucht; C., S. & Co. haben über 7,500 Dampfmachines verkauft,

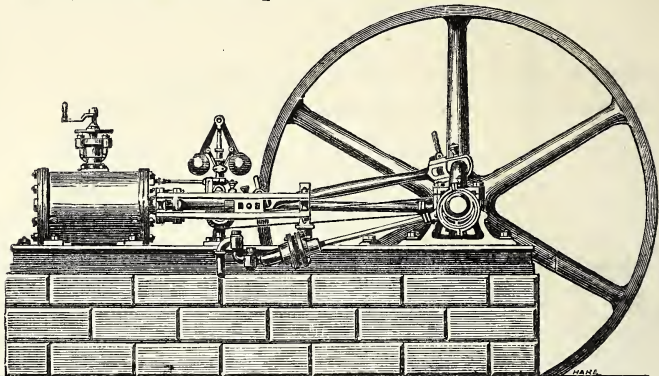
von welchen ungefähr die Hälfte dieser grossen Anzahl nach den Colonien oder verschiedenen Continentalstaaten gesandt worden ist. Für Preise, geliefert am Verschiffungshafen, siehe unten. Nähere Einzelheiten auf gefällige Anfrage bei unsern Repräsentanten auf der Ausstellung oder brieflich bei irgend einem unserer Häuser, wie oben.

**MOTORI À VAPORE PORTATILI, della forza da
4 a 30 cavalli.**

Per attivare meccanismi agrari ed altri siano portatili o fissi questi motori sono ora in uso generale in tutte le parti del mondo, avendo la ditta C., S. & Cie. venduti già meglio che 7,500 motori, del qual gran numero metà circa furono spedite alle colonie ed altri paesi continentali. Per prezzi alla consegna al porto d'imbarco vedasi qui appiè. Per ulteriori particolari rivolgersi con lettera ai loro rappresentanti all'Esposizione o a qualunque dei loro stabilimenti sopra indicati.

Horse-Power <i>Chevaux de Vapeur</i> Pferdekraft Forza di Cavalli	With one Cylinder <i>A un Cylindre</i> Mit einem Cylinder Con un Cilindro	Price <i>Preis</i> Preis Prezzo	Horse-Power <i>Chevaux de Vapeur</i> Pferdekraft Forza di Cavalli	With two Cylinders <i>A deux Cylindres</i> Mit zwei Cylindern Con due Cilindri	Price <i>Preis</i> Preis Prezzo
4	• • • •	£150	10	• • • •	£260
5	• • • •	£165	12	• • • •	£300
6	• • • •	£180	14	• • • •	£335
7	• • • •	£195	16	• • • •	£375
8	• • • •	£210	20	• • • •	£445
10	• • • •	£240	25	• • • •	£540
			30	• • • •	£640

CLAYTON, SHUTTLEWORTH, & CO., *Lincoln, England.*
London, Wien, Pesth.—Champ de Mars, Paris; Ile de Billancourt.



FIXED HORIZONTAL STEAM ENGINES AND
 CORNISH BOILERS.

The principle of these Engines is direct action; the whole arrangement is the simplest possible; the working parts being fewer in number, more compact, and less likely to get out of order than in any other class of stationary engine.

The boilers are of improved design, best material and workmanship, and are constructed so as to conform to the laws of the country where they will be worked. In cases where economy of fuel is an object, the engine can be fitted with expansion valves, and feed-water heaters, which are not included in the prices quoted below.

MACHINES À VAPEUR HORIZONTALES FIXES
 AVEC CHAUDIÈRES DE CORNWALL.

Le principe de construction de ces Machines est celui de l'action directe; la disposition entière en est des plus simples, les pièces qui fonctionnent étant en plus petit nombre, plus compactes, et par conséquent offrant moins de probabilités de dérangement que dans toute autre classe de machine stationnaire.

Les chaudières sont construites d'après un système perfectionné, et combinent l'emploi de la matière première la meilleure avec l'excellence de la main d'œuvre; cette construction permet, en outre, de se conformer aux lois du pays dans lequel elles sont destinées à fonctionner. Enfin, dans les circonstances où l'économie de combustible est un objet important, cette machine peut être munie de tiroir à expansion et de chauffeur d'eau, qui ne sont pas compris dans les prix cotés ci-dessous.

STABILE HORIZONTALE DAMPFMASCHINEN UND
 CORNWALLISCHE DAMPFKESSEL.

Das Princip dieser Dampfmachines ist directe Wirkung; die ganze Anordnung ist die einfachste, welche möglich ist; die bewegenden Theile sind weniger in Zahl, compacter und gerathen nicht so leicht in Unordnung, als die irgend einer anderen Klasse von stehenden Dampfmachines.

Die Dampfkessel sind von verbessertem Entwurf, bestem Material und bester Arbeit und sind den Gesetzen des Landes gemäss construirt, wo sie in Thätigkeit kommen sollen. In Fällen, wo Ersparniss von Feuerung bezweckt werden soll, kann die Dampfmachine mit Expansions-Schiebern und Wasservorwärmern versehen werden, welche nicht in den unten angegebenen Preisen eingeschlossen sind.

MOTORE A VAPORE FISSO ORIZZONTALE E
 CALDAIE AD USO DI CORNWALL.

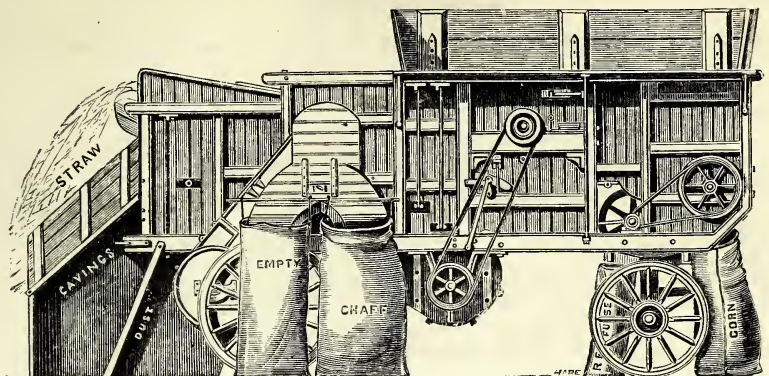
Il principio di questi Motori è l'azione diretta; tutta la disposizione è la più semplice possibile; le parti operanti essendo minori in numero, più compatte, e meno suscettibili ad inconvenienti che in qualsiasi altra classe di motori fissi.

Le caldaie sono di un sistema perfezionato, del miglior materiale ed esecuzione, e costrutte così che si conformino alle leggi del paese in cui devono adoperarsi. Nei casi in cui l'economia del combustibile sia d'importanza, il motore può essere fornito di valvole espansive, e di riscaldatori d'acque immescenti, i quali non sono inclusi nei prezzi appiè indicati.

Prices of Engines with cylindrical Cornish boilers and piping, complete.
Prix des Machines avec Chaudières de Cornwall et Tuyaux, complètes.
 Preise der Dampfmachines mit cylindrischen Cornwallischen Dampfkesseln und Röhren, vollständig.
Prezzi di Motori con Caldaie cilindriche ad uso di Cornwall, e Tubature, complete.

4	(Horse-Power . .)	(£120	12	(Horse-Power . .)	(£280	25	(Horse-Power . .)	(£540
6	(Chevaux de Vapeur . .)	14	(Chevaux de Vapeur . .)	30	(Chevaux de Vapeur . .)	30	(Chevaux de Vapeur . .)	£640
8	(Pferdekraft . .)	£200	16	(Pferdekraft . .)	£360	35	(Pferdekraft . .)	£740
10	(Forza di Cavalli . .)	£240	20	(Forza di Cavalli . .)	£440	40	(Forza di Cavalli . .)	£840

CLAYTON, SHUTTLEWORTH, & CO., *Lincoln, England.*
London, Wien, Pesth.—Champ de Mars, Paris; Ile de Billancourt.



PORTABLE COMBINED DOUBLE BLAST THRASHING AND FINISHING MACHINE.
 No. 2B.

For thrashing almost all kinds of agricultural produce, C., S., & Co.'s Machines are now in general use in all parts of the world, over 6,000 having been already sold.

The Machines are made in two sizes; the large, suitable for being driven by an 8-horse-power engine, and the small by one of 6 horse-power. For prices, delivered at shipping port, see below. Further particulars on application to their representatives at the Exhibition or to any of their establishments, as above, by letter.

MACHINE LOCOMOBILE À BATTRE ET À NETTOYER, COMBINÉE, À DOUBLE VENTILATEUR.
 No. 2B.

Les machines à battre presque toutes espèces de produits agricoles de C., S., et Cie, sont maintenant d'un usage général dans toutes les parties du monde, plus de 6,000 de ces machines s'étant déjà vendues.

Elles sont de deux grandeurs; la plus grande peut être mue par une machine à vapeur de 8 chevaux, et la plus petite par une de 6 chevaux. Pour prix, délivré aux ports d'expédition, voir ci-dessous. Pour plus amples détails, s'adresser à leurs représentants à l'Exposition ou à n'importe lequel de leurs établissements, comme ci-dessus, par lettre.

TRANSPORTABLE COMBINIRTE DRESCH- UND REINIGUNGS-MASCHINE MIT DOPPELTEM GEBLÄSE.—No. 2B.

Die Maschinen von C., S. & Co. werden zum Dreschen von fast allen Getreidearten ganz allgemein gebraucht in allen Theilen der Welt; mehr als 6,000 sind bereits verkauft worden.

Die Maschinen werden in zwei Grössen gemacht; die grosse, um von einer Dampfmaschine von 8 Pferdekraft, die kleine, um von einer von 6 Pferdekraft getrieben zu werden. Für Preise, geliefert am Verschiffungshafen, siehe unten. Nähere Einzelheiten auf gefällige Anfrage bei ihren Repräsentanten auf der Ausstellung oder brieflich bei irgend einem ihrer Geschäftshäuser, wie oben.

MACCHINA PORTATILE COMBINATA CON TREBIATOIO A DOPPIO SOFFIO E MONDATOIO.
 No. 2B.

Le macchine dei Signori C., S., e Cia. per trebbiare qualunque specie di prodotto agrario sono ora in uso in tutte le parti del mondo, avendone essi vendute già più di 6,000.

Le macchine sono costruite di due grandezze: la grande attivabile da un motore della forza di 8 cavalli, e la piccola da uno della forza di 6 cavalli. Pei prezzi alla consegna al porto d'imbarco, vedasi qui appiè. Per ulteriori particolari rivolgersi con lettera, ai loro rappresentanti all'Esposizione o a qualunque dei loro stabilimenti sopraindicati.

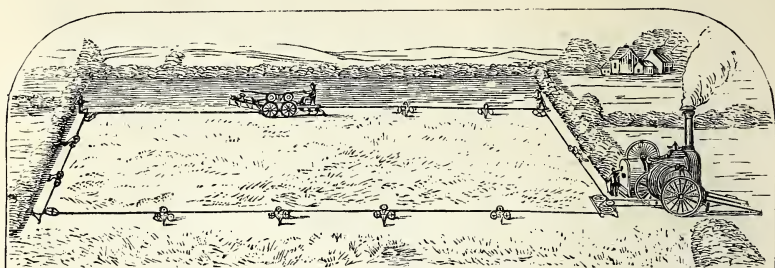
Large machine, fitted with patent adjustable screen	Price	
Grande machine, munie d'un crible ajustable, breveté	Prix	£ s.
Grosse Maschine, mit patentirtem verstellbaren Sortircylinder versehen	Preis	115 10
Gran macchina con vaglio aggiustabile patentato	Prezzo	
Small machine, fitted with patent adjustable screen	Price	
Petite machine, munie d'un crible ajustable, breveté	Prix	£ s.
Kleine Maschine, mit patentirtem verstellbaren Sortircylinder versehen	Preis	98 0
Piccola macchina con vaglio aggiustabile patentato	Prezzo	

Drum, 5 feet wide Tambour, 1,52m. de large Trommel, 5 Fuss weit Tamburo, 5 piedi largo	Chaff Elevator Éléveur à menue paille Spreuelevator Elevatore della Loppa
£7 extra	£5 extra
£7 extra	£4 extra

HOWARD, JAMES & FREDERICK, *Britannia Iron Works, Bedford, England.*

Agricultural Engineers.

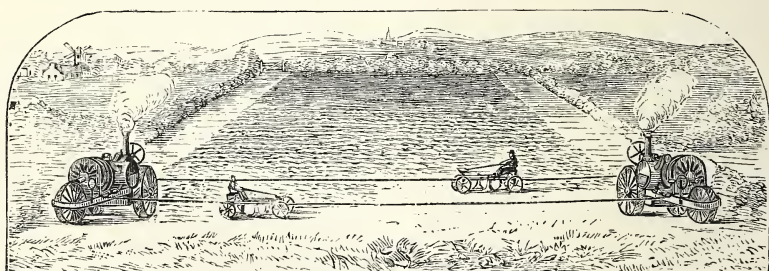
HOWARDS' STEAM PLOUGHING AND CULTIVATING APPARATUS ON THE SINGLE ENGINE SYSTEM.



This Apparatus is adapted for hilly as well as flat land, and for irregularly shaped as well as square fields. As the Engine and Windlass are stationary while in operation, the expense of carting water is often avoided by digging a pond or well at convenient points; and if set in an adjoining field, which is recommended when practicable, the whole field can be cultivated, headlands included,

without the engine being taken into it. As many as 40 or even 50 acres of land can be advantageously cultivated without any removal of the Engine or Windlass. From 7 to 10 acres a day can be broken up with an ordinary 8 or 10-horse Portable Engine. The Engine requires no alteration whatever, and is of course available for thrashing, &c., when not required on the land.

HOWARDS' STEAM PLOUGHING AND CULTIVATING APPARATUS ON THE DOUBLE ENGINE SYSTEM.



This Apparatus is adapted for Public Companies and large occupiers. Where the fields are large and square a greater breadth of land can be ploughed in a day by this arrangement than by any other, and less time is occupied in removing from field to field or place to place. The engines are equally well adapted for ploughing on the Single Engine system,

being fitted with two winding drums conveniently arranged upon the framework; the whole apparatus can be thus conveyed from field to field without the aid of horses, and the time occupied in setting down is reduced to less than one-half, while the first cost is little more than that of an ordinary self-propelling engine and a detached windlass.

More than 500 Steam Ploughs and Cultivators manufactured by J. & F. HOWARD are in use, and can be seen at work in almost every County of England. MESSRS. HOWARDS'

Steam Cultivated Farms, which may also be seen at any time, can be reached in an hour, by Midland Railway, from King's Cross, London.

HOWARD, JAMES & FREDERICK, *Britannia Iron Works, Bedford, England.*

Agricultural Engineers.

HOWARDS' CHAMPION PLOUGH

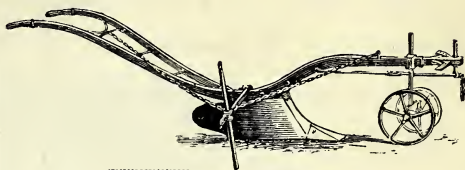
Has received Fifteen First Prizes from the Royal Agricultural Society of England, being the largest number of Prizes awarded to any kind of Plough ever exhibited.



More than 65,000 are in use.

HOWARDS' RIDGING PLOUGH

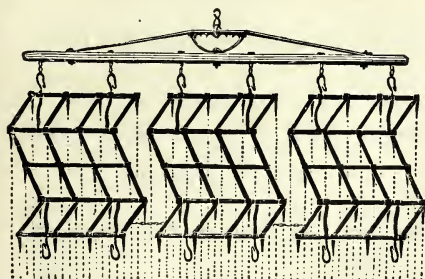
Received the only Prize ever offered by the Royal Agricultural Society of England for Ridging Ploughs.



Several thousands are in use.

HOWARDS' ZIGZAG HARROWS

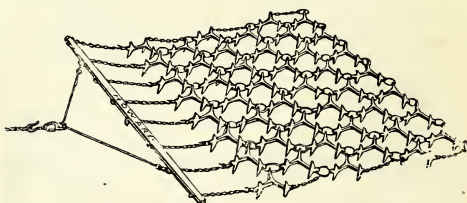
Have received Sixteen First Prizes from the Royal Agricultural Society of England, being the largest number of Prizes awarded to any kind of Harrows ever exhibited.



More than 50,000 are in use.

HOWARDS' CHAIN OR FLEXIBLE HARROW

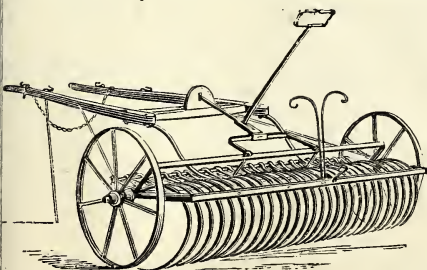
Received a High Commendation from the Royal Agricultural Society of England, no Prize being offered.



Several thousands are already in use, though only introduced in 1864.

HOWARDS' PATENT HORSE RAKE

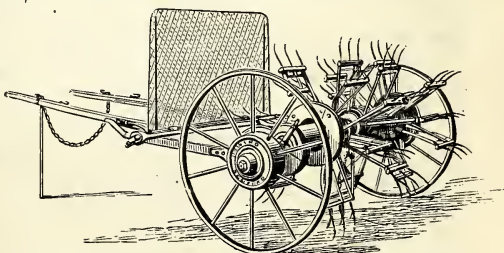
Has received every First Prize offered by the Royal Agricultural Society of England for the last fifteen years.



More than 15,000 are in use.

HOWARDS' PATENT HAYMAKER

Has received every First Prize offered by the Royal Agricultural Society of England since it was introduced.



Several thousands are already in use, though only introduced in 1861.

HOWARD, JAMES & FREDERICK, *Britannia Iron Works, Bedford, England,*
Agricultural Engineers.

HOWARDS' CHAMPION PLOUGHS

Have won in less than Three Years

SIXTY-EIGHT ALL ENGLAND PRIZES,

And upwards of

FIFTEEN HUNDRED LOCAL PRIZES,

By far the largest number ever awarded to
any kind of Plough.

THE FOLLOWING PRIZES

Have also been awarded to

JAMES AND FREDERICK HOWARD,

Besides many others by

ENGLISH, SCOTCH, IRISH, CONTINENTAL,
COLONIAL, AND OTHER SOCIETIES.

By the

ROYAL AGRICULTURAL SOCIETY OF ENGLAND,

FORTY-FOUR FIRST PRIZES

For the

Best Ploughs for light land,

Best Ploughs for heavy land,

Best Ploughs for general purposes,

Best Ridging Ploughs, Best Subsoil Ploughs,

Best Harrows, Best Steam Harrows,

Best Horse Rakes,

Best Haymakers, and Best Horse Hoes;

Also the

GOLD MEDAL AND OTHER PRIZES,

For Steam Cultivating Machinery.

GREAT EXHIBITION OF ALL NATIONS, 1851.

The Prize Medal for Ploughs and
Horse Rakes.

PARIS UNIVERSAL EXHIBITION, 1855.

The Gold Medal of Honour for the Best
Ploughs, Best Harrows, and Best
Horse Rakes.

PARIS AGRICULTURAL EXHIBITION, 1856.

Seven First Prizes, and Eight Gold and Silver
Medals for the Best Ploughs, Best
Harrows, and Best Horse Rakes.

AUSTRIAN INTERNATIONAL EXHIBITION, 1857.

The Gold Medal of Honour for the
Best Ploughs.

HUNGARIAN INTERNATIONAL EXHIBITION, 1857.

The First Class Diploma for the Best Ploughs.

INTERNATIONAL EXHIBITION, 1862.

The Prize Medal for Ploughs, Harrows, Horse
Rakes, Haymakers, and Steam
Cultivating Apparatus.

HAMBURG INTERNATIONAL EXHIBITION, 1863.

The Gold Medal for the Best Ploughs,
Best Harrows, and Best Haymakers, and a
Prize of Forty Guineas
for Steam Cultivating Apparatus.

RUSSIAN INTERNATIONAL EXHIBITION, 1864.

The Large Gold Medal for the
Best Plough.

FRENCH INTERNATIONAL STEAM PLOUGHING MATCHES AT ROANNE AND MELUN, 1864.

Both First Prizes of 100*l.* and 60*l.*, and both
Gold Medals for Steam Cultivating and
Ploughing Apparatus.

PRUSSIAN INTERNATIONAL EXHIBITION, 1865.

The Prize Medal for the Best Ploughs
and Harrows.

DANISH INTERNATIONAL EXHIBITION, 1866.

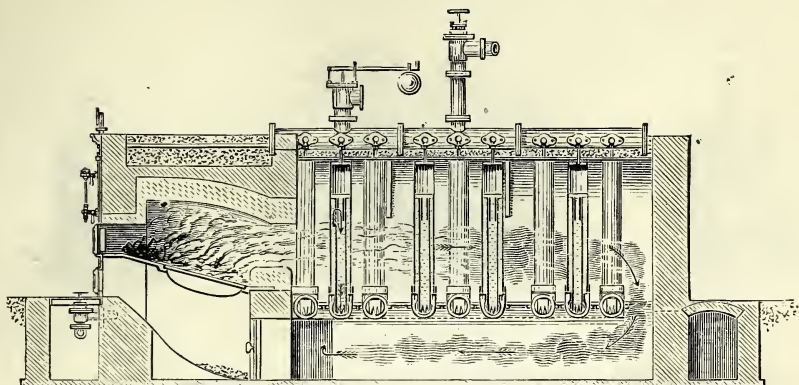
The Prize Medal for the Best Ploughs
and Horse Rakes.

HOWARD, JAMES & FREDERICK, *Britannia Iron Works, Bedford, England.*

Agricultural Engineers.

HOWARDS' NEW PATENT SAFETY STEAM BOILER AND SUPERHEATER.

Patented in Great Britain, France, America, and other Countries.



J. & F. HOWARD have had their attention drawn to the subject of the construction of Steam Boilers by three primary considerations:

1.—The frequent loss of life and great destruction of property attending boiler explosions, the recurrence of which, with the ordinary type of boiler in use, neither expense nor precautions on the part of owners can altogether prevent.

2.—The difficulty, loss of time, and expense of repairing the ordinary Cornish boilers.

3.—The desirability and economy of using superheated steam at high pressure.

The following may be enumerated among the advantages of Howards' New Patent Boiler and Superheater:—

SAFETY—No Risk of Explosion.—The new boiler is built up of wrought-iron tubes, the bursting pressure of each of which is at least 2,000 pounds per square inch, and the whole of the steam pipes and connections are tested to a pressure of 500 pounds.

ECONOMY OF FUEL.—In getting up steam to the working pressure, only about one-fifth of the coal is required that is consumed by the ordinary Cornish boiler; for instance, in a 40-horse boiler steam can be raised to 80 pounds pressure in twenty minutes with 2 cwt. of coal, the actual consumption being only 84 lbs. A Gauntlett's Pyrometer placed in the flue leading to the chimney indicates 200 degrees lower temperature than with the Cornish boiler.

HIGH PRESSURE SUPERHEATED STEAM.—The upper parts of the tubes forming the steam space or reservoir, being exposed to the radiated heat of the heating chamber, and the current of heated gases being confined to the lower

part of the tubes containing the water by transverse screens, the steam may be superheated to any desired degree, and *priming*, an almost incurable evil, is entirely obviated.

CIRCULATION OF THE WATER.—Each tube has within it an internal one, rising up through the water space, dividing the water into annular and central columns. The current of heated gases impinging upon the tubes, causes the water in the outer spaces to rise to the top and flow down the inner tubes: in consequence, a most active circulation is kept up in every part of the boiler. Water containing a large percentage of lime may be used in the new boilers without producing incrustation or deposit.

SIMPLICITY OF PARTS AND DURABILITY.—*No joint or bolt is exposed to the action of the fire, and it has no rivets or seams in its construction.* The tubes are so arranged and fitted that each is free to expand and contract; and can be taken out, examined, and replaced in a quarter of an hour.

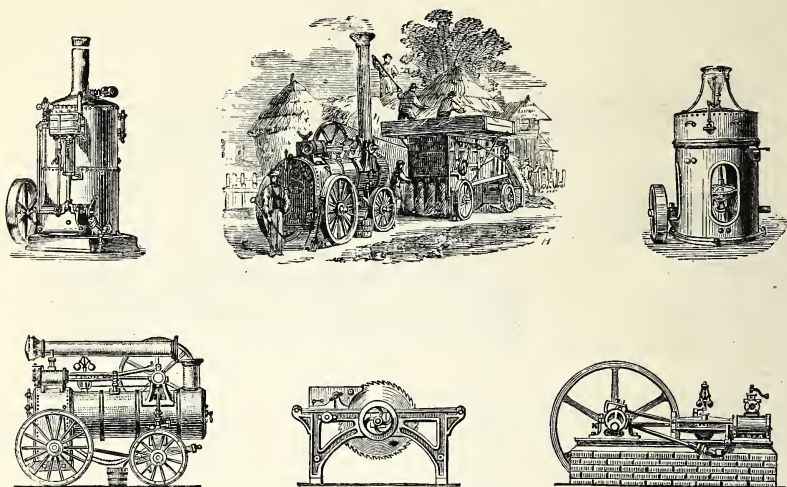
PORTABILITY, ECONOMY OF SPACE, AND FACILITY IN SETTING.—Three men are sufficient to move and fix the boiler in almost any position without pulley blocks or tackling, and the largest piece will pass through a common doorway. It can be packed in a very small compass for exportation, and can be transported on bad roads or through mountainous districts. When fixed, it occupies considerably less space than a Cornish boiler.

One of the new Patent Boilers and Superheaters has been selected by the Royal Commissioners for driving the machinery at the Paris Exhibition, and can be seen at work daily.

J. & F. HOWARD ARE PREPARED TO GRANT LICENSES TO MANUFACTURE, TO ENGINEERS OF STANDING.

MARSHALL, SONS, & CO. (LIMITED), *Britannia Iron Works, Gainsborough, England.*

(Paris Exhibition, Group VI. Class 48; also at Billancourt.)



Manufacturers of Portable Steam Engines, Vertical Steam Engines, Horizontal Fixed Engines, Sawing Machinery, Thrashing Machinery, Corn Mills, Oil Mills, Pumping Machinery, &c.

Awarded within the last three years twenty Gold, Silver, and Bronze Medals, with numerous other money prizes, including First Prize of 50l. for the best Thrashing Machine, Doncaster, 1865.

Catalogues free on application.

Fabricants de Machines à vapeur, Locomobiles, Machines Verticales, Machines Horizontales fixes, Machines à Battre, Scies mécaniques, Moulins à grain, Pompes centrifuges, etc.

Accordés pendant les trois dernières années vingt Médailles d'or et d'argent, avec nombreux prix en monnaie, y compris le Premier Prix de 50l. pour la meilleure machine à battre, à Doncaster, 1865.

Catalogues franco sur demande.

Fabricanten von Locomobilen, Verticalen Dampfmaschinen, Horizontalen Hochdruck-Maschinen, Dampfkesseln, Dampf-Dreschmaschinen, Sägen, Mühlen aller Grössen, Centrifugal-Pumpen etc.

Innerhalb drei Jahren zwanzig goldene und silberne Medaillen und den höchsten Geldpreis von 50l. für die beste Dampfdreschmaschine, zu Doncaster, 1865.

Cataloge auf gefällige Anfrage.

Fabbricanti di Motori Portatili, Motori Verticali, Motori Orizzontali Fissi, Trebbiatori, Seghe a Macchina, Mulini, Frantoi, Pompe Meccaniche, ecc.

Aggiudicatori di venti Medagli in Oro, Argento, e Bronzo entro gli tre anni, oltre numerosi premi in denaro, incluso il Primo Premio di 50l. pel miglior trebbiatoio a Doncaster, 1865.

Cataloghi gratis a richiesta.

PACKARD, EDWARD, & CO., 6 Prince's-street, Ipswich, and 60 Mark-lane, London.

Agricultural Chemists, and Manufacturers of Artificial Manures.

Obtained the ONLY Award in this Class at the International Exhibition, London, 1862.

EDWARD PACKARD & Co. were one of the first firms to commence the manufacture of Chemical Manures in Great Britain, and by the aid of chemistry and machinery they have been enabled to produce superphosphate of the highest quality, at the lowest possible cost, which they can supply on best terms, to manufacturers and others.

They are also actively engaged in the production of phosphates from the various deposits of England and other countries, and are therefore able to supply consumers at moderate prices.

Their manufactories are conveniently situated for rail and water communication, and shipping is easily obtainable at minimum freights for all British and foreign ports. The model exhibited is an exact representation of their works.

Their mills for the purpose of reducing the raw phosphates to a fine powder are erected at Ipswich, and are the largest and most powerful that are devoted to this purpose in England.

The following ground and unground samples are exhibited:—

1. Phosphate from Nassau, Germany, containing from 60 to 70 % of phosphate of lime.

2. Phosphate from the island of Navassa, W.I., containing 65 to 75 % of phosphate of lime.
3. Phosphate from the island of Sombrero, W.I., containing 77 % of phosphate of lime.
4. Phosphate from Estramadura, Spain, containing from 65 to 70 % of phosphate of lime.
5. Coprolite from the 'Green Sand,' Cambridge-shire, England, containing 61 % of phosphate of lime.
6. Coprolite from the 'Red Craig,' Suffolk, England.
7. Coprolite from Bedfordshire, England.

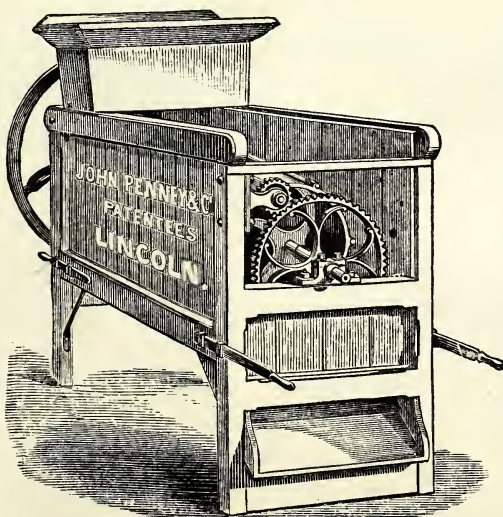
Superphosphates of lime

8. Containing 18 to 21 % of soluble phosphoric acid.
9. Containing 15 to 18 % of soluble phosphoric acid.
10. Containing 14 to 15 % of soluble phosphoric acid.
11. Containing $12\frac{1}{2}$ to 14 per cent. of soluble phosphoric acid.
12. Ammoniated Sombrero guano, containing $14\frac{1}{2}$ % of soluble phosphoric acid, and $4\frac{1}{2}$ % of ammonia.

PENNEY & CO. (LIMITED), LINCOLN, Angleterre.—Billancourt, Hangar D.

Séparateur à Grains, rotatoire et s'ajustant à volonté, breveté, de Penney.

Ces Machines sépareront le grain de toutes grosseurs et de toutes espèces à raison de 8 à 12 quarters (25 à 35) hectolitres selon leur dimension, et conviennent admirablement aux Fermiers, Négociants en Grains, Marchands de Malt, etc., leur permettant de préparer leurs grains, de façon à en obtenir le plus haut prix. Elles peuvent se mouvoir à la main ou par la vapeur. Elles sont employées dans les Machines à battre combinées, par les principaux ingénieurs.



Diese Maschinen können alle Grössen oder Arten von Getreide scheiden, von 8 bis 12 Malter per Stunde, je nach der Grösse, und eignen sich vorzüglich für Oeconomen, Kornhändler, Malzer u. s. w., da es dieselben in den Stand setzt, ihr Getreide so zuzurichten, dass es den höchsten Preis einbringt. Es kann durch Hand- oder Dampfkraft betrieben werden und wird besonders für combinirte Dreschmaschinen von den berühmtesten Ingenieuren gebraucht.

PRIX.

EMBALLAGE.

Pouces	Pieds	Pouces	£ s.	12	12	loco	Lincoln
Avec crible de 16 de diam. et de	4	0	de long .	12	12	loco	Lincoln
Avec crible de 16 de diam. et de	5	1	de long .	14	14	„	„
Avec crible de 20 de diam. et de	5	1	de long .	18	0	„	„

En caisse à claire-voie	£	s.	£	s.
En caisse fermée	1	5	1	8
	1	15	1	18
	selon la grandeur			

RANSOMES & SIMS, *Ipswich and London.*

RANSOMES & SIMS' factory, the 'Orwell Works,' established in 1785, is situated at Ipswich, distant from London 69 miles, and accessible by the Great Eastern Railway in two hours.

The factory covers more than twelve acres of land, and employs more than 1,100 men and boys.

The London office of the firm is at 9 *Gracechurch-street*.

The seven pages following contain drawings of the principal agricultural implements manufactured at the Orwell Works. Specimens of the portable engines and other machines may be seen during the Exhibition at the main building, Class 52, and in the British Agricultural Annexe, Classes 48 and 74; also at Billancourt, at RANSOMES & SIMS' dépôt, at the warehouse of Mr. EDMOND GANNERON, Quai de Billy, No. 26, Paris, and in the large building at the Pont de Jena, belonging to the British Admiralty, Class 99; at either of which places may be obtained the fullest information as to the manufactures of the firm, and catalogues in various languages. One of the partners of the firm, Mr. JOHN HEAD, will be in attendance during the Exhibition to give any information required.

The experience which has been accumulated by RANSOMES & SIMS has enabled them to adapt their manufactures in the most successful manner for the use of cultivators in all parts of the world, and for the agriculture of tropical as well as of temperate climates.

The following are prominent characteristics of all the machinery made by RANSOMES & SIMS:—

1. Every machine is designed so that the parts liable to wear out can be replaced with the least difficulty, and without skilled mechanical labour. These parts are all marked with letters and numbers, by reference to which duplicate parts, exactly similar to the originals in size and form, may be procured from the factory as required, and with a certainty that they will fit properly, even though they may not be ordered for many years after the machine has been purchased.

2. Every machine is so constructed that if badly used or over-strained by working, the first part to give way will be that which can be replaced with the least difficulty and expense.

3. The most suitable materials are employed;

great care is taken that they are of the best quality, and that all woodwork is thoroughly sound and well seasoned.

4. The prices are the lowest at which it is possible to supply thoroughly good and well-manufactured machinery of ample strength, and suitable for use in countries where the work is very severe, and repairs are difficult to execute. RANSOMES & SIMS confidently assert that if a careful comparison be made between their manufactures and others which are offered at lower prices, it will mostly be found that this apparent cheapness is procured by a deterioration in the quality or quantity of material, or by the use of inferior workmanship, and, not unfrequently, by a combination of all these drawbacks to the value of the machine.

The high position which RANSOMES & SIMS have attained may be gathered from the following summary of prizes, medals, and other certificates of merit conferred upon them for their manufactures by—

The Royal Agricultural Societies of England and Ireland; the Bath and West of England Society; the Paris Exhibitions of 1855 and 1856; the International Exhibitions and Agricultural Societies of St. Petersburg, Vienna, Hamburg, Brussels, Schwerin, Zaandam, Rostock, Lille, Stettin, Amsterdam, Rotterdam, Dresden, Cologne, Haarlem, Rouen, Oporto, Alipore, Lucknow, Adelaide, Ballarat, Port Phillip, Longford, &c. &c.

Nearly £1,000 in Money Prizes.

24 Gold Medals.

104 First Prizes.

53 Silver Medals.

18 Second Prizes.

24 Bronze Medals.

7 Third Prizes.

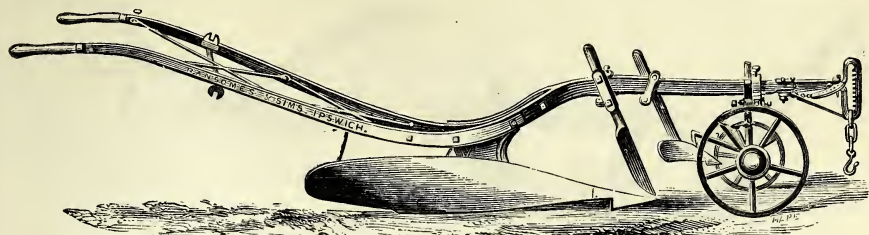
26 High Commendations.

18 Commendations.

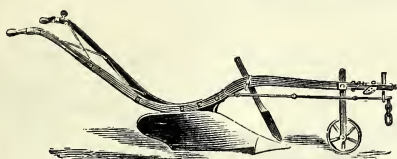
15 Certificates of Merit.

93 All England Champion Plough Prizes since September, 1864, including 2 Bronze Medals at the International Exhibition of 1851; 2 Prize Medals at the International Exhibition of 1862; the only Grand Gold Medal of Honour given to an English firm at the Paris Exhibition, 1856; and the following decorations:—*The Order of the Medjedieh from the Sultan of Turkey.*

The Insignia of Commander of the Order of Christ, from the King of Portugal.



The most improved English Prize Plough, with separate Bodies for various uses. In 4 sizes, RND, RNE, RNF, RNG. More prizes have been won with this pattern plough than with any other.



BFS. A Light Iron Plough.



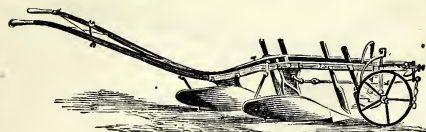
A Light Ridging Plough. BFD.



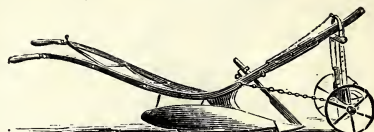
scw. Improved Scotch Swing Plough.



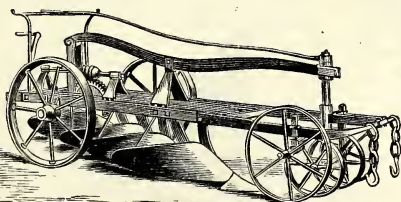
Improved English Ridging Plough. DBO.



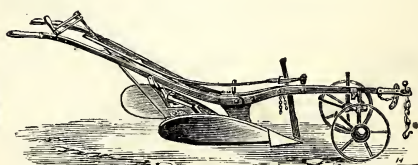
BFS. Iron Double Furrow Plough.



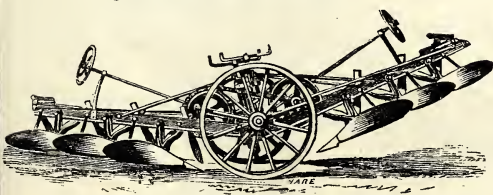
English Prize Plough, with Gallows. YL.



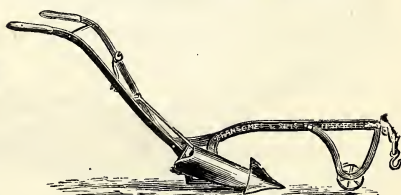
Improved Four Furrow Plough.



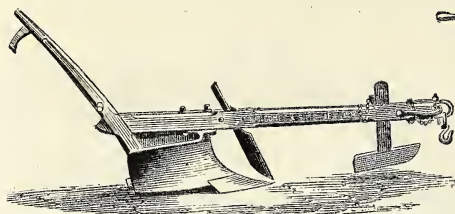
Patent Oneway or Turnwrist Plough. SPT.



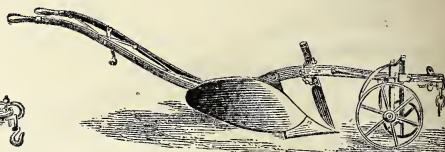
Patent Steam Plough.



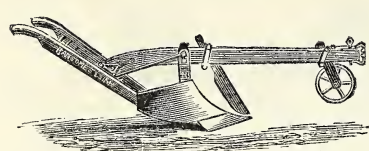
Light Iron Turnwrist Plough. RET



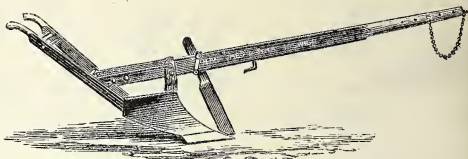
Improved Dutch Plough.



Wide Furrow Plough. YFR.



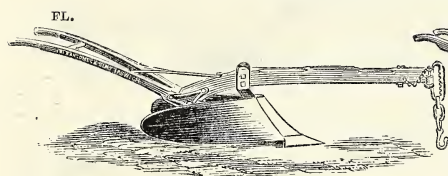
F.D.



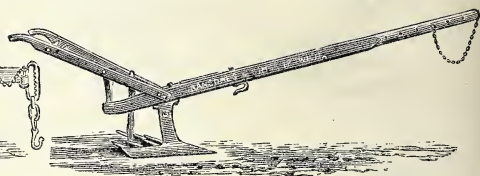
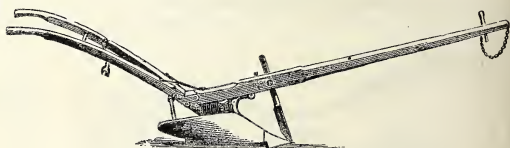
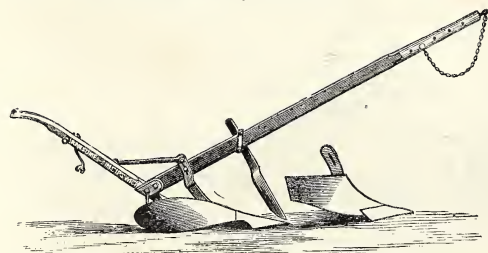
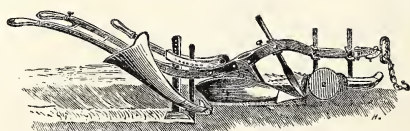
FDH.

Ploughs for Tropical Agriculture,
In sizes adapted for Two, Four, or Six Oxen.

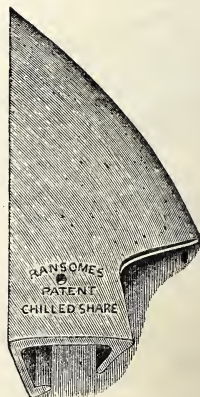
FSH.

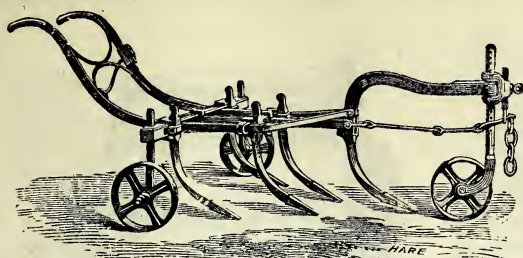


FL.

BFO. A very Light Wood Beam Plough,
with various Bodies.An improved Strong English Plough, with high
Wood Beam for Oxen. WVRL.REB. A very Light Wood Beam Plough, with high adjustable
Beam for Oxen.

Cotgreave's Patent Subsoil and Trenching Plough.

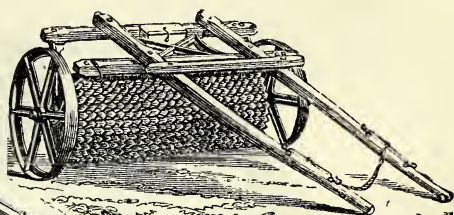
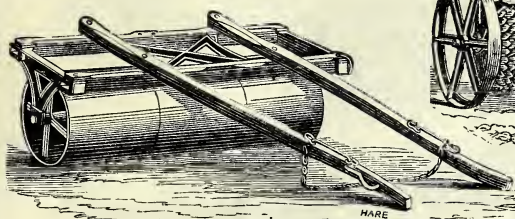
Patent Ploughshares, which do not wear blunt.
Also all kinds of Iron Work for Ploughs.



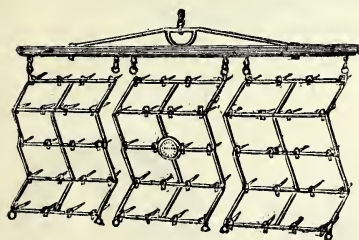
Scarifiers, Grubbers, or Cultivators, for two or more Horses or Oxen.



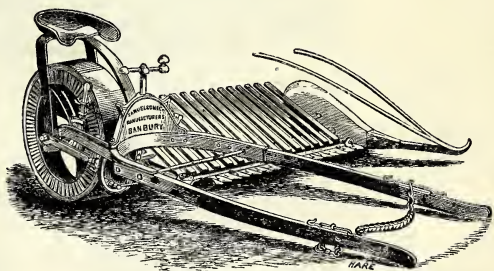
Patent Whippetrees and Pomeltrees for Ploughs and other Field Implements.



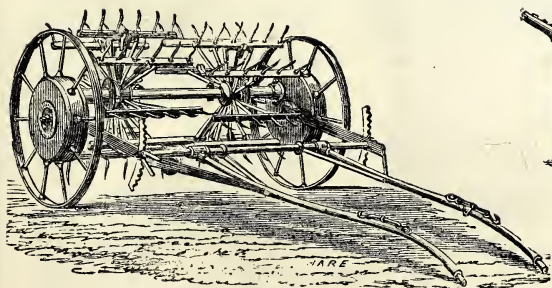
Rollers and Clod Crushers of every Description.



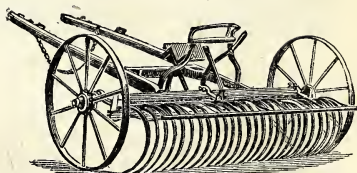
Harrows of various kinds.



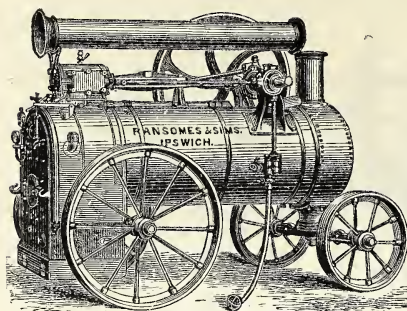
Reaping and Mowing Machines.



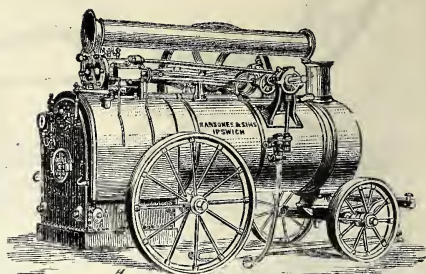
Patent Haymakers.



Patent Horse Rakes.

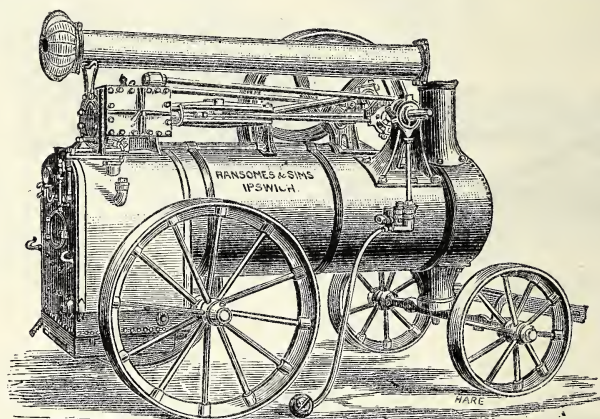
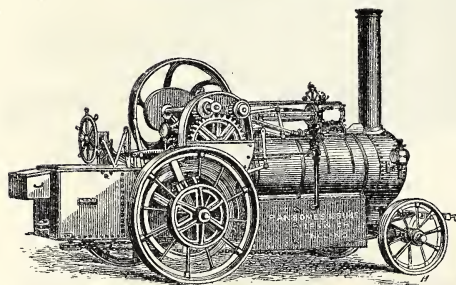
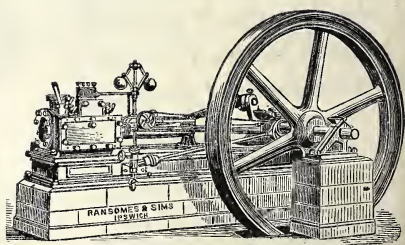
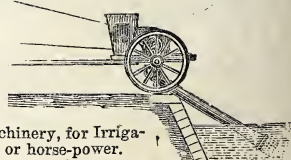
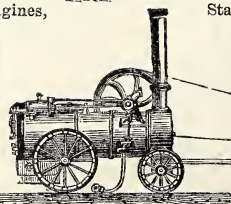
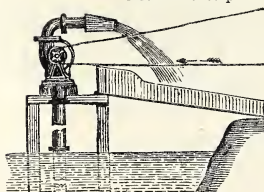


Single Cylinder. 3 to 12 horse-power.

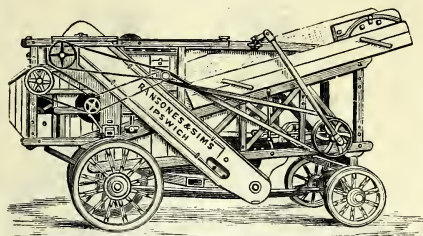


Double Cylinder, 10 to 20 horse-power.

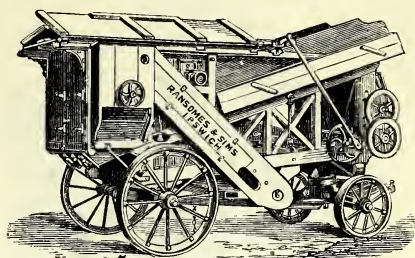
Portable Steam Engines.

Newly designed Expansion Portable Steam Engines.
Will not consume more than half the fuel burnt by ordinary Portable Engines.Self-moving and Traction Engines,
8 to 14 horse-power.Stationary High Pressure Engines,
4 to 30 horse-power.

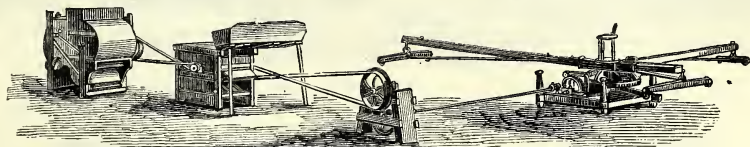
Centrifugal and other Pumping Machinery, for Irrigation or Drainage, &c., by steam or horse-power.



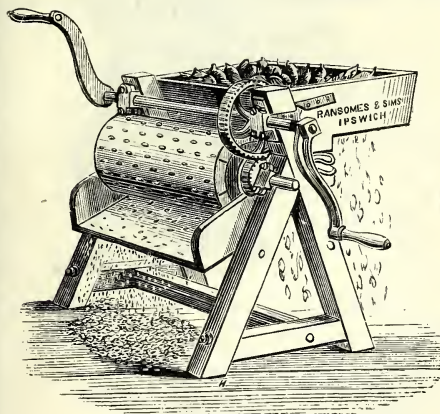
A 1. Steam Threshing Machine, perfectly finishing the Grain for Market at one Operation.



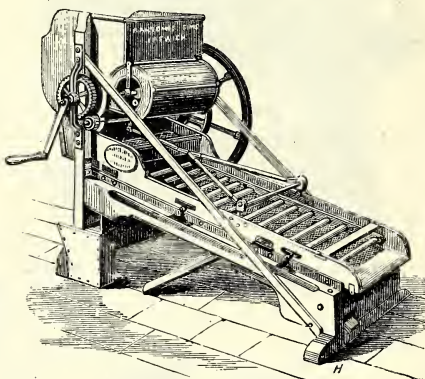
H 1. Steam Threshing and Dressing Machine, with Apparatus for breaking the Straw simultaneously into Food for Cattle.



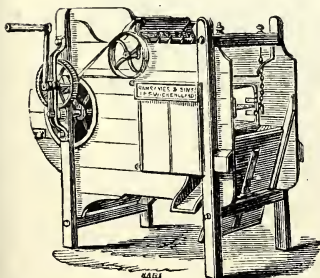
Machinery for Threshing and Dressing Grain, adapted for Animal Power.



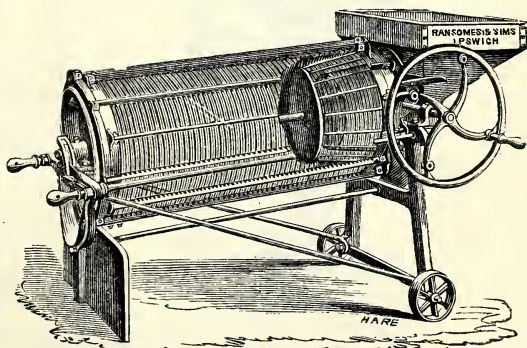
Maize or Indian Corn Sheller.



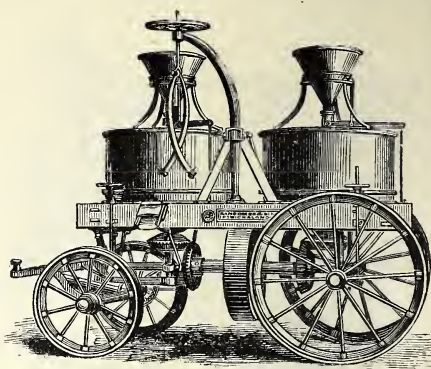
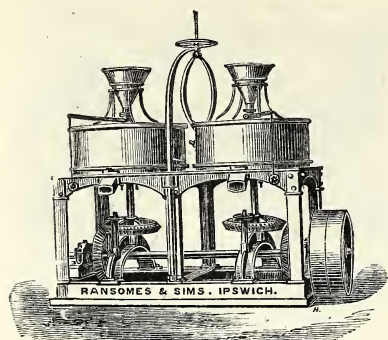
Poyser's Patent Corn Screen and Grain Separator.



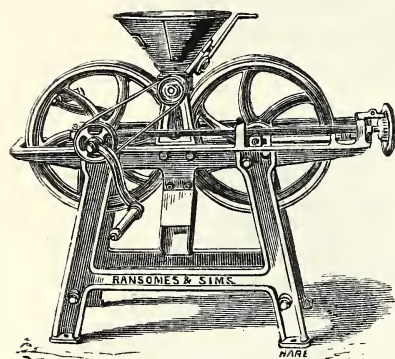
Machines for Winnowing and Cleaning Corn, Barley, Rice, Coffee, &c.



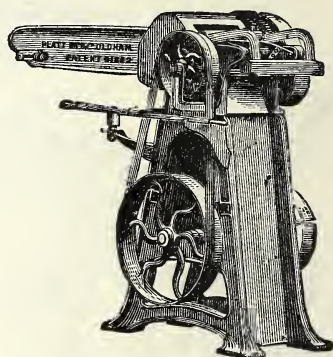
Patent Self-Cleaning and Adjustable Rotary Corn Screen for removing the small Kernels, &c., from any Sample of Grain.



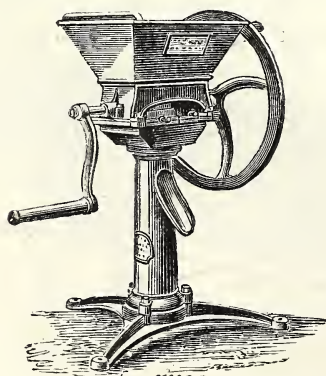
Fixed or Portable Corn Drills with Stones from 2 feet to 4½ feet diameter, and suited for producing fine Flour for Household Purposes or for grinding Food for Cattle.



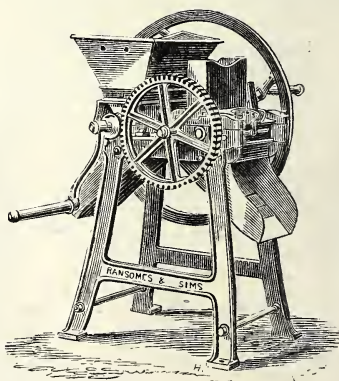
Patent universal Mills for bruising Oats, Barley, Linseed, and for splitting Beans, Peas, or Maize.



Cotton Gins for every Description of Fibre.



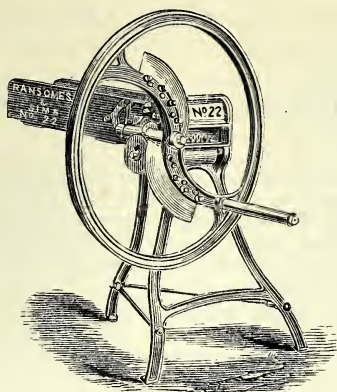
No. 4 for crushing Oats.



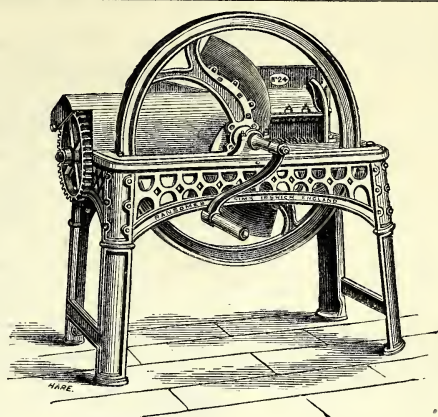
No. 1 for splitting Beans, Peas, or Maize.

Nos. 10, 11, 17 for crushing Oats, splitting Beans, Peas, or Maize, and breaking Oil Cake.

Biddell's Patent Steel Roller Mills.

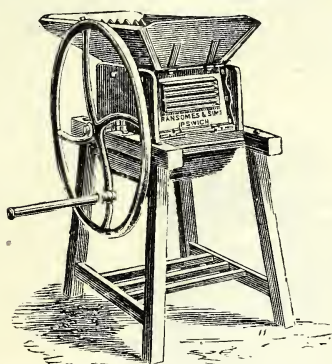


No. 22. Chaff Engine.

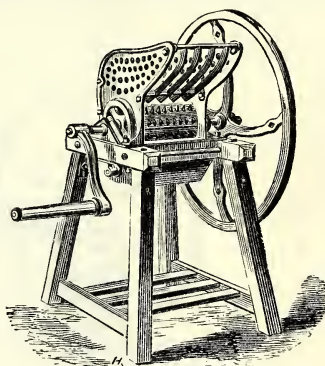


No. 24. Chaff Engine.

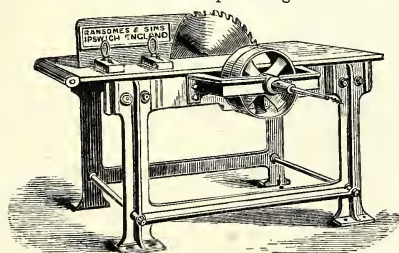
Machines for cutting Hay, Straw, Cane Trash, Hop Bines, &c., for Cattle Feeding and other purposes.



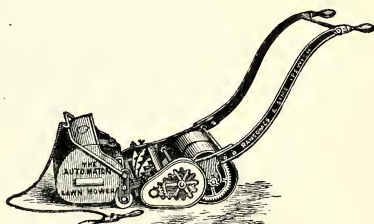
Gardner's Turnip Cutter for cutting Roots
for Cattle or Sheep Feeding.



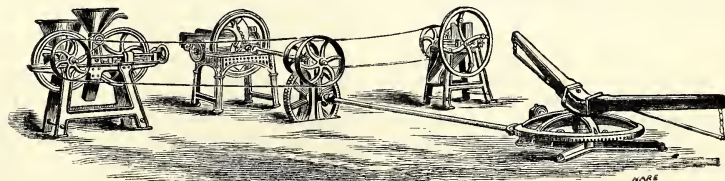
Biddell's Patent Root Pulper for preparing
Roots for Cattle Feeding and other purposes.



Circular Saw Tables of various sizes.



The Automaton Lawn Mower,
for mowing Grass Plats in Gardens.



READING IRON WORKS (LIMITED), *Reading, England (late Barrett, Exall, & Andrewes).*

Engineers and Agricultural Machinists.

Ingenieurs et Constructeurs de Machines Agricoles.

Ingenieure und Fabricanten von landwirthschaftlichen Maschinen.

Ingegneri e Macchinisti Agrari.

This Company hold THE LAST THREE TRIENNIAL PRIZES awarded by the Royal Agricultural Society of England for the best and most economical Fixture Steam Engine, at which the first Manufacturers compete.

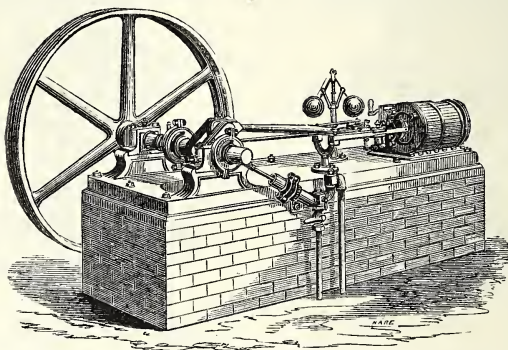
Prize Medals have also been awarded them for their fixed and portable engines at the International and other Exhibitions at London, Hamburg, Paris, Turin, Munich, Cologne, Stettin, Riga, and other places upon the Continent, as well as in England.

The great object constantly before the attention of this Company is *economy* in the consumption of fuel combined with first class workmanship and simplicity of construction.

Cette Compagnie tient LES TROIS DERNIERS PRIX TRIENNAUX, décernés par la Société Royale d'Agriculture d'Angleterre, pour la meilleure ainsi que la plus économique Machine à Vapeur Fixée, en concurrence avec les constructeurs principaux.

Des Médailles lui ont aussi été décernées pour ses Machines Fixes et Portatives aux Expositions Internationales et autres, à Londres, Hambourg, Paris, Turin, Munich, Cologne, Stettin, Riga, et autres lieux sur le Continent, aussi bien qu'en Angleterre.

Cette Compagnie a constamment pour son but spécial *l'économie* dans la consommation du combustible, avec la meilleure main-d'œuvre et la simplicité de construction.



Fixture Engine—*Machine Fixée sur Place*—Stabile Dampfmaschine—*Motore Fisso.*

They direct special attention to their celebrated horse-power portable thrashing machines and safety horse-works, of which upwards of 5,000 are at work in all parts of the world.

To their sawing machinery, first prize barley horner, hay machines, horse-rakes, ploughs, patent chain corn drills, clod crushers, land pressers, oilcake mills, chaff machines, grain crushers, gorse machines, flour-grinding mills, cotton gins, reaping and mowing machines, and other agricultural and general machinery.

Plans and estimates of farm machinery, steam or water power, flourmills, sawmills, and general engineering work, as also their large illustrated catalogue, supplied on application to the READING IRON WORKS (LIMITED), Reading England.

Elle appelle attention spéciale sur ces célèbres machines à battre portatives de la force de cheval et sur ses manèges de sûreté, dont plus de 5,000 fonctionnent dans toutes les parties du monde.

Ainsi que sur ses machines à scier, son décortiqueur à orge (premier prix), ses faneuses, râtaux, charrues, semoirs à chaîne, brevetés; ses broyeurs à mottes, rouleaux, moulins à tourteaux, hache-pailles; ses machines à broyer le grain, à arracher les ajoncs; ses moulins à farines, machines à égrener le coton; ses faucheuses, moissonneuses, et autres instruments de travail agricole et en général.

Plans et devis de machines à l'usage de fermes, usines mues par l'eau ou la vapeur, moulins à farine, scieries, et généralement tout ce qui concerne la profession d'ingénieur; ainsi que son grand catalogue illustré, fournis en s'adressant aux FORGES DE READING (Société à responsabilité limitée), à Reading, Angleterre.

READING IRON WORKS (LIMITED), Reading, England (late Barrett, Exall, & Andrewes).

Diese Compagnie hat DIE LETZTEN DREI DREIJÄHRIGEN PREISE von der Königlichen Landwirthschaftlichen Gesellschaft von England, auf deren Versammlungen die besten Fabricanten competiren, für die beste und Ersparniss am meisten befördernde stabile Dampfmaschine zuerkannt bekommen.

Preismedaillen sind ebenfalls für ihre stabilen und locomobilen Dampfmaschinen auf den internationalen und andern Ausstellungen zu London, Hamburg, Paris, Turin, München, Cöln, Stettin, Riga und andern Orten auf dem Continente, wie auch in England, ertheilt worden.

Das grosse Ziel, welches diese Compagnie fortwährend vor Augen hat, ist *Ersparniss* im Verbrauch von Feuerung, verbunden mit bester Arbeit und Einfachheit der Construction.

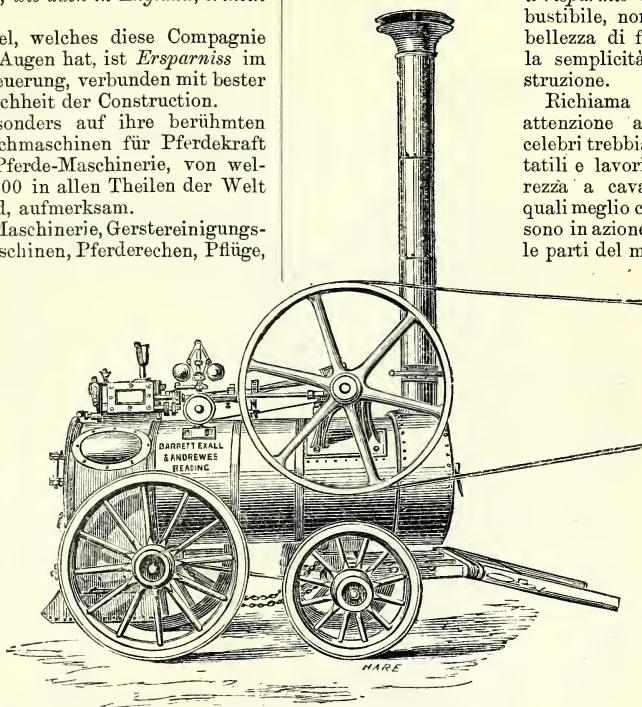
Sie macht besonders auf ihre berühmten locomobilen Dreschmaschinen für Pferdekraft und Sicherheits-Pferde-Maschinerie, von welchen mehr als 5,000 in allen Theilen der Welt in Thätigkeit sind, aufmerksam.

Auf ihre Säge-Maschinerie, Gerstereinigungsmaschine, Heumaschinen, Pferderechen, Pflüge,

Questa Compagnia tiene I TRE ULTIMI PREMI TRIENNALI aggiudicati dalla Società Reale d'Agricoltura d'Inghilterra pel migliore anziche il più economico Motore Fisso dietro concorrenza fatta tra i fabbricanti principali. Diverse Medaglie sono anche state aggiudicate a questa Compagnia pei suoi Motori Fissi e Portatili alle Esposizioni Internazionali ed altre, a Londra, Amburgo, Parigi, Torino, Monaco, Colonia, Stettin, Riga, e altrove sul Continente come in Inghilterra.

Lo scopo principale di questa Compagnia è il risparmio del combustibile, non che la bellezza di fattura e la semplicità di costruzione.

Richiama speciale attenzione ai suoi celebri trebbiatori portatili e lavori di sicurezza a cavalli, dei quali meglio che 5,000 sono in azione in tutte le parti del mondo.



Portable Engine—Locomobile—Locomobile Dampfmaschine—Motore Portabile.

patentirten Ketten-Säemaschinen, Eggen, Walzen, Oelkuchenmühlen, Spreuschneidemaschinen, Kornzermalmer, Futterschneidemaschinen, Mehlmühlen, Egrenirmaschinen, Ernte- und Mähmaschinen und andere landwirthschaftliche und allgemeine Maschinerie.

Entwürfe und Anschläge von landwirthschaftlicher Maschinerie, Dampf- oder Wasserkraft, Mehlmühlen, Sägemühlen und allgemeiner Ingenieurarbeit, wie auch ihre grossen illustrirten Cataloge, werden gesandt auf gefällige Anfrage von den READING IRON WORKS (Limited), Reading, England.

Alle sue seghe meccaniche mondatore da orzo (gran premio) fienaiolo, rastrelli a cavalli, aratri, semina grano a catena patentati, tritola, zolle, compressori di terra, mulini per panelli, macchine da pula, tritola grano, macchine da ulice, mulini, monda cotone, falciatrici e mietitrici, ed altri meccanismi agrari e in generale.

Piani e stime di meccanismi rurali a forza di vapore o d'acqua, mulini, seghe a macchina e opere d'ingegnere in generale, come pure il suo gran catalogo illustrato vien rilasciato ai richiedenti alla MAGONA DI READING (anonima), a Reading, Inghilterra.

ROBEY & CO., General Engineers, Lincoln, England.

These Engines possess considerable advantages over the ordinary horizontal fixed engine; they occupy less space, and require no brick-work or masonry for foundation, as they have an iron foundation, which forms the ash-pan, and is also a feedwater-tank, to heat the water before passing into the boiler. The fire-box is adapted to burn wood. These engines are very suitable for corn mills, cotton machinery, &c., as they are complete in themselves, and can be set down and used immediately.

PRICES.

Three-horse power	. . .	£80
Four " "	. . .	£100
Six " "	. . .	£135
Eight " "	. . .	£165

Ces Machines possèdent des avantages considérables sur les machines fixes horizontales ordinaires; elles occupent moins d'espace, et n'exigent point de fondation en briques ou en maçonnerie, attendu qu'elles en ont une en fer qui forme le cendrier, en même temps qu'elle est un réservoir d'alimentation où l'eau s'échauffe avant de passer dans la chaudière. La boîte à feu est adaptée à la consommation du bois. Ces machines conviennent parfaitement pour moulins à grains, machines à travailler le coton, etc., étant complètes par elles-mêmes et pouvant se poser et fonctionner immédiatement.

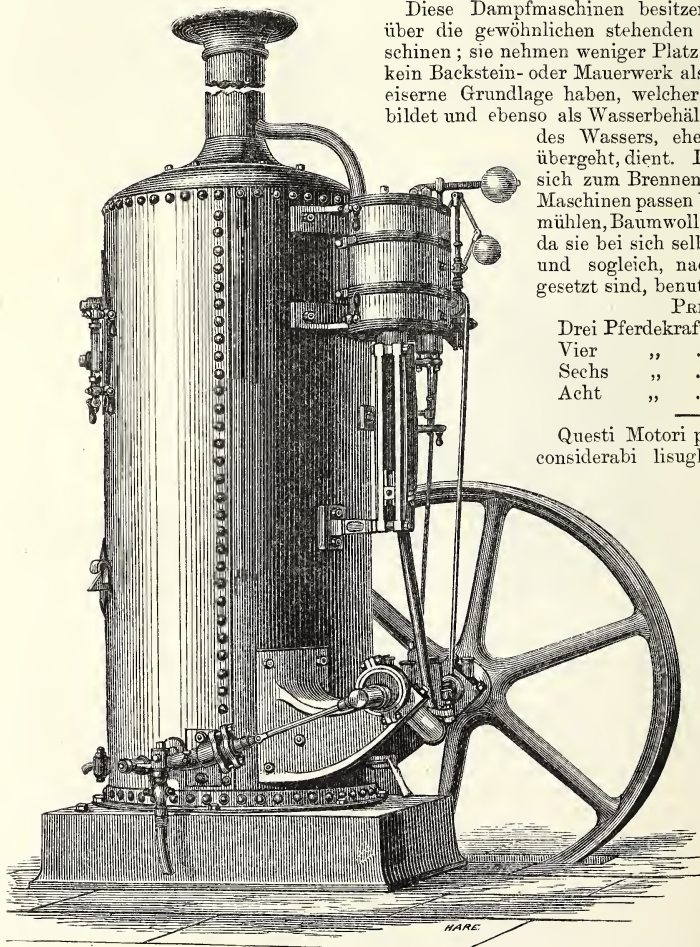
PRIX. Machine de trois chevaux	. Fr. 2,000
" de quatre "	. 2,500
" de six "	. 3,375
" de huit "	. 4,125

Diese Dampfmaschinen besitzen grosse Vortheile über die gewöhnlichen stehenden horizontalen Maschinen; sie nehmen weniger Platz ein und brauchen kein Backstein- oder Mauerwerk als Grund, da sie eine eiserne Grundlage haben, welcher den Aschenkasten bildet und ebenso als Wasserbehälter, zum Erwärmen des Wassers, ehe es in den Kessel übergeht, dient. Das Feuerloch eignet sich zum Brennen von Holz. Diese Maschinen passen besonders für Kornmühlen, Baumwoll-Maschinerie u. s. w., da sie bei sich selbst vollständig sind und sogleich, nachdem sie niedergesetzt sind, benutzt werden können.

PREISE.

Drei Pferdekraft	. Thlr. 533 $\frac{1}{2}$
Vier " "	. 666 $\frac{2}{3}$
Sechs " "	. 900
Acht " "	. 1,000

Questi Motori posseggono vantaggi considerabili lisugli motori fissi orizzontali. Occupa no minore spazio e non richiedono lavoro di mat toni o muratura per fondamento, avendone una di ferro che forma il cinerario, ed è anche cisterna alimentatrice per riscaldar l'acqua prima che passi nella caldaia. Il fornello è adattato per arder legna. Questi motori sono adattissimi per mulini da grano, meccanismi per cotone, ecc., essendo completi in se stessi, e si possono fissare d usare immediatamente.



Improved Stationary Steam-Engine—Machine à Vapeur Stationnaire perfectionnée.
Verbesserte stehende Dampfmaschine—Motore fisso perfezionato.

PREZZI . {	Forza di tre cavalli	. L. st. 80	Forza di sei cavalli	. L. st. 135
	" di quattro "	. 100	" di otto "	. 165

ROBEY & CO., *General Engineers, Lincoln, England.*

These Engines are of superior material and workmanship, and, when required, are supplied with enlarged fire-boxes for burning wood. They are made very strong and durable, and thus are peculiarly suitable for foreign countries and places a long distance from any workshop. Every engine manufactured by ROBEY & COMPANY is equal to double its nominal power. Many medals and prizes have been awarded to these engines.

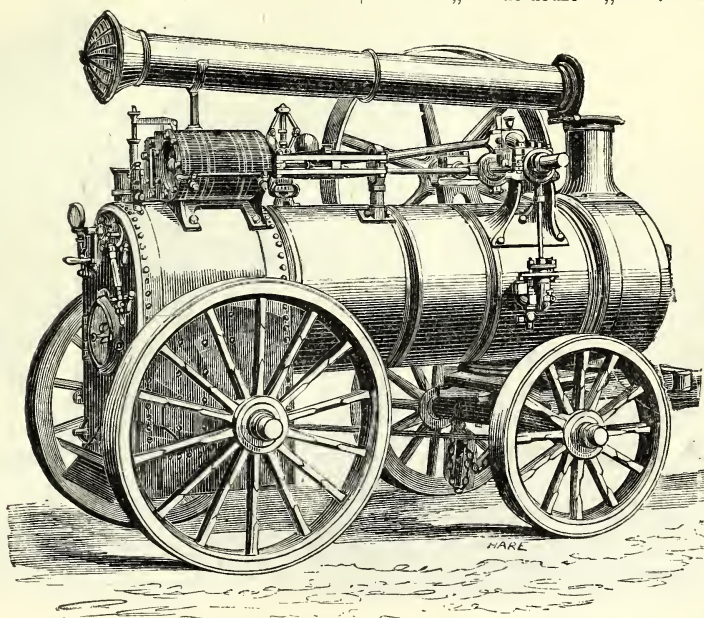
PRICES.

Eight-horse power	.	.	£210
Ten „ „	.	.	£240
Twelve „ „	.	.	£270

Ces Machines sont d'une supérieure construction, tant pour l'excellence des matériaux que pour celle de la main d'œuvre, et sont munies, quand on le demande, de boîtes à feu d'une dimension plus large et leur permettant de brûler du bois. Elles sont construites de façon à être très-solides et très-durables, et conviennent donc particulièrement pour les pays étrangers et les lieux situés à une longue distance de tout atelier. Toute machine construite par ROBEY ET CIE. est d'une force égale au double de sa puissance nominale. De nombreuses médailles et prix ont récompensé le mérite de ces machines.

PRIX.

Machine de huit chevaux	.	Fr. 5,250
„ de dix „	.	6,000
„ de douze „	.	6,750



Improved Portable Steam Engine—*Machine à Vapeur portative perfectionnée.*
Verbesserte transportable Dampfmaschine—*Motore a Vapore portatile perfezionato.*

Diese Dampfmaschinen sind von bestem Material und bester Arbeit und können auf Verlangen mit grösserem Feuerloche zum Brennen von Holz versehen werden. Sie sind sehr stark und dauerhaft gemacht und eignen sich daher besonders für fremde Länder und Orte, welche in grosser Entfernung von einer Maschinenfabrik liegen. Jede von ROBEY & Co. gemachte Maschine hat die doppelte ihrer nominellen Kraft. Viele Preismedaillen und Preise sind für diese Dampfmaschinen gegeben worden.

PREISE.

Acht Pferdekraft	.	Thlr. 1,400
Zehn „ „	.	1,600
Zwölf „ „	.	1,800

Questi motori sono di materiali e lavorazione superiori, e, se occorre, sono forniti di fornello più grande per arder legna. Sono fatti molto forti e durevoli, e così sono utilissimi all'estero in luoghi distanti da officine. Ogni motore di ROBEY E CIA. è eguale al doppio della sua forza nominale. Molte medaglie e premi sono stati aggiudicati a questi motori.

PREZZI.

Forza di otto cavalli	.	L. st. 210
„ di dieci „	.	240
„ di dodici „	.	270

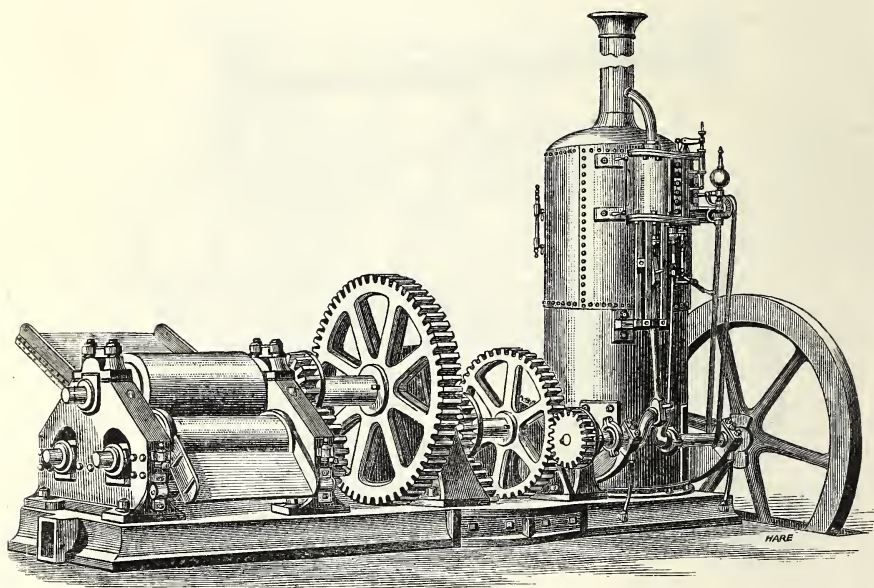
ROBEY & CO., *General Engineers, Lincoln, England.*

This Sugar-Cane Mill has been designed for small plantations. The whole of the machinery is combined on one strong iron foundation frame, for convenience in erection; and to facilitate transport it can readily be taken into pieces of light weight. A mill of six-horse power will yield two tons of sugar per day.

Price, complete for shipment, £520.

Ce Moulin à Cannes a été construit pour les plantations de peu d'étendue. Tout son mécanisme repose sur une solide charpente de fondation en fer afin d'en faciliter l'érection; et son transport est également rendu plus facile par la faculté qu'il possède de se démonter en pièces d'un poids léger. Un moulin de la force de six chevaux produira deux tonnes—2,030 kil.—de sucre par jour.

Prix, complet pour expédition, 13,000 fr.



Sugar-Cane Mill and Engine combined—*Moulin à Cannes et Machine à Vapeur, combinés.*
 Combinirte Zuckerrohrmühle und Dampfmaschine—*Molino da Canna da Zucchero e Motore combinati.*

Diese Zuckerrohrmühle ist für kleine Pflanzungen bestimmt. Die ganze Maschinerie ist auf einem starken Gestelle, als Grundlage dienend, befestigt, zur Bequemlichkeit der Aufsteller; und um Transport zu erleichtern, kann sie leicht in Stücke von geringer Schwere genommen werden. Eine Mühle von sechs Pferdekraft producirt 6 Tonnen Zucker per Tag.

Preis, vollständig, für Verschiffung,
 3,466 $\frac{2}{3}$ Thlr.

Questo Mulino da Canna da Zucchero è stato ideato per piccole piantazioni. Il totale del meccanismo è combinato in una intelaiatura di fondazione in ferro per comodità nell'erezione; e per facilitarne il trasporto si può facilmente smontarla in pezzi di peso leggero. Un mulino della forza di 6 cavalli darà due tonnellate di zucchero per giorno.

Prezzo, completo per l'imbarco, L. st. 520.

ROBEY & CO., General Engineers, Lincoln, England.

The Thrashing Machines of ROBEY & Co. have a world-wide reputation for the excellent manner in which they clean and separate the grain, and deliver the straw straight. These machines are very durable, and of the most simple design. They do not easily get out of order, and therefore cost little for repairs. An eight-horse machine will thrash 800 bushels of grain per day of ten hours.

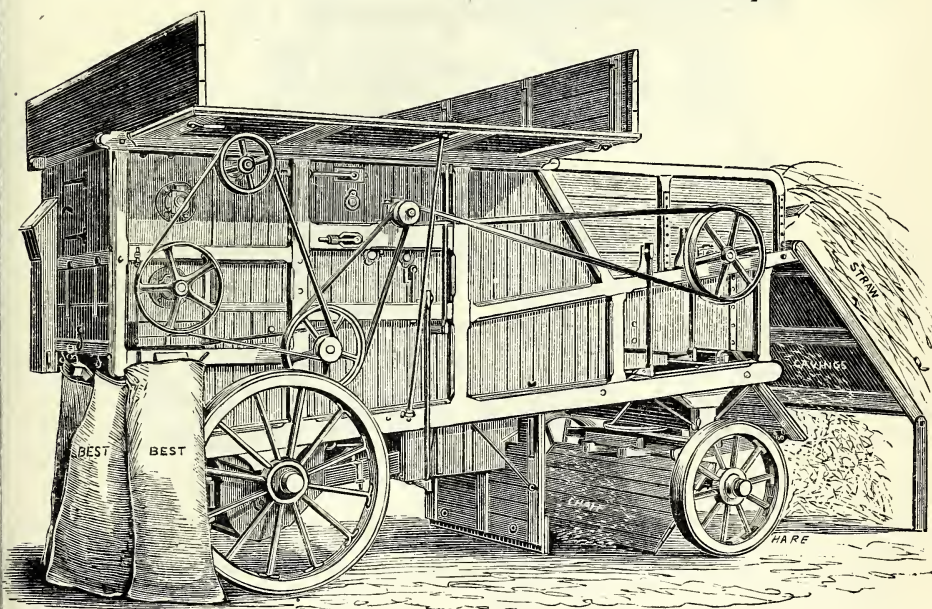
PRICES.

Finishing machine . .	£120
Single dressing machine .	£100

Les Machines à Battre de ROBEY ET C^{IE}. jouissent d'une réputation s'étendant dans le monde entier pour l'excellence de leur façon de nettoyer et séparer le grain, et de livrer la paille droite. Ces machines sont d'une très-grande durée, et de la construction la plus simple. Ne se dérangeant que difficilement, elles ne coûtent par conséquent que fort peu en réparations. Une machine de huit chevaux battra 800 boisseaux—30 hectolitres—de grain par journée de travail de dix heures.

PRIX.

Machine à nettoyage complet	Fr. 3,000
Machine à nettoyage simple .	2,500



Eight-Horse Power Thrashing Machine—Machine à Battre de huit Chevaux de Force.

Dreschmaschine von acht Pferdekraft—Trebbeia a Forza di otto Cavalli.

Diese Dreschmaschinen von ROBEY & Co. genießen eines weltverbreiteten Rufs für die ausgezeichnete Weise, auf welche sie das Getreide reinigen und trennen und das Stroh gerade überliefern. Diese Maschinen sind sehr dauerhaft und von einfachstem Entwurf. Sie gerathen nicht leicht in Unordnung und kosten daher wenig für Reparaturen. Eine Maschine von acht Pferdekraft drischt 800 Malter Getreide per Tag von 10 Stunden.

PREISE.

Reinigungsmaschine . .	Thlr. 800
Einfache Zurichtemaschine .	666 $\frac{2}{3}$

Queste Trebbie di ROBEY E CIA. hanno una riputazione mondiale per l'eccellente maniera con cui mondano e scelgono il grano e scaricano la paglia diritta. Queste macchine sono duravolissime e della più semplice struttura. Non si guastano facilmente, e perciò costano poco in risarcimenti. Una macchina a forza di otto cavalli trebbierà 800 staia di grano per giornata di 10 ore.

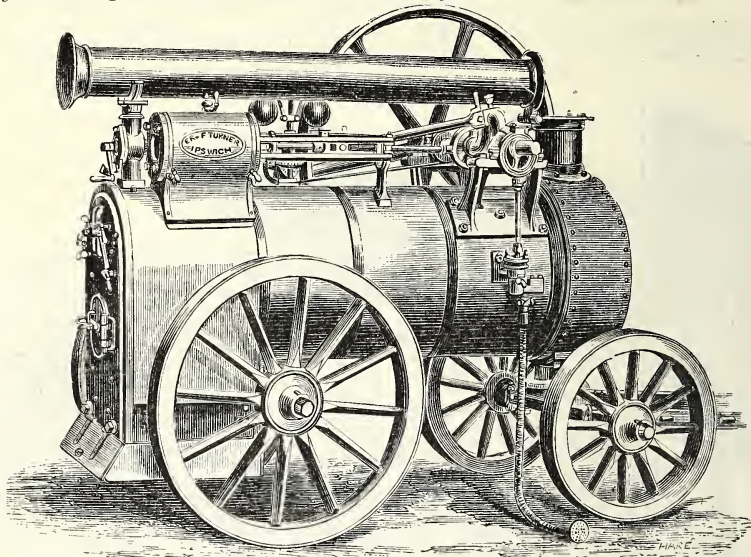
PREZZI.

Macchina per finitezza di lavoro	L. st. 120
„ singola per nettare .	100

TURNER, E. R. & F., Ipswich, England.

Obtained the Prize Medal of the International Exhibition of London, 1862. Prize Gold Medal and 150 francs at the Paris International Exhibition of Agriculture, 1856. Large Silver Medal of the Vienna Imperial Exhibition, 1857. Six Medals and Money Prizes at the Royal Agricultural Exhibitions of East Flanders in 1861 and 1865. Gold Medal from the Royal Agricultural Society of Holland, 1863. Numerous Money Prizes and Medals of the Royal Agricultural Societies of England and Ireland and at various local Exhibitions. Large Silver Prize Medal, at the International Exhibitions of Hamburg 1863, and Lille, 1863, &c. &c.

Ont obtenu la Médaille de l'Exposition Internationale de Londres, 1862. Médaille d'Or et 150 francs à l'Exposition Internationale d'Agriculture de Paris, 1856. Grande Médaille d'Argent de l'Exposition Impériale de Vienne, 1857. Six Médailles et Prix en Argent aux Expositions Royales d'Agriculture des Flandres Orientales en 1861 et 1865. Médaille d'Or de la Société Royale d'Agriculture de Hollande, 1863. Nombreuses Médailles et Prix en Argent de la Société Royale d'Agriculture d'Angleterre et d'Irlande, et à diverses Expositions locales. Grande Médaille d'Argent aux Expositions Internationales de Hambourg, 1863, et Lille, 1863, etc., etc.



E. R. & F. Turner's Five-Horse Power Portable Steam Engine.

This Engine is constructed with all the latest improvements. The boiler is of the Flush Top form, the workmanship executed with great care, and the design and arrangement of stays such as to ensure great strength, so that a pressure of steam considerably in excess of that ordinarily used with portable engines, may be safely employed, and fully double the nominal power obtained.

The 5-horse engine is of very convenient size for agricultural purposes; and, used for driving E. R. and F. T.'s favorite C F machine, it will thrash and dress a large quantity of corn per day.

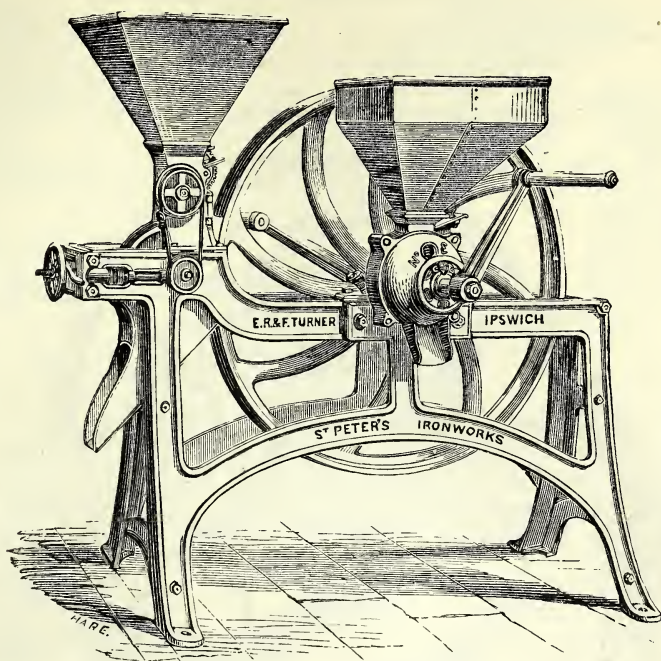
Price in London (with extra safety-valve, steam gauge, and whistle), 163*l*. Engines similar in construction to the above, of 2, 3, 4, 6, 7, 8 and 10 horse power, and thrashing machines, adapted for each particular size of engine, are manufactured by E. R. and F. TURNER.

Cette Machine est construite avec tous les perfectionnements les plus récents. La chaudière est de la forme dite à sommet en saillie, la main d'œuvre très-soignée, et le système et la disposition des brides de nature à assurer une grande solidité, de façon qu'une pression de vapeur considérablement en excès de celle ordinairement en usage pour les machines locomobiles, peut s'appliquer sans nul danger, doublant ainsi la puissance nominale de la machine.

La machine de 5 chevaux est d'une dimension qui convient parfaitement aux usages de l'agriculture; et employée comme moteur de la machine favorite D F de E. R. et F. T., elle battra et nettoiera une grande quantité de grain chaque jour.

Prix, à Londres (avec soupape d'extra sûreté, manomètre et sifflet), 4,116 frs. Des machines d'une construction semblable à celle ci-dessus, de 2, 3, 4, 6, 7, 8 et 10 chevaux, et des batteuses adaptées à chaque dimension particulière de machine, sont aussi construites par E. R. et F. TURNER.

TURNER, E. R. & F., Ipswich, England.



E. R. & F. Turner's Prize Roller Crushing Mills.

Of the several varieties of these mills exhibited, the above engraving represents the No. 1 B mill, which is a type of the whole. As examples of the economy they afford, it may be stated that horses in their prime and in full work, derive as much nourishment from three bushels of oats crushed by these mills as from four bushels of uncrushed oats. With horses either too young or too old to masticate properly, the saving is considerably more. For fattening beasts or pigs, barley thus crushed is as efficacious as if ground to fine meal; all waste from dust is avoided, and as the power required for crushing is scarcely more than a tenth of that necessary for grinding an equal quantity, the saving in the cost of preparation is manifest. As linseed and malt crushers these mills are also perfect. Each size mill is made with or without a bean mill combined on the same frame, and which may be used simultaneously.

Prices in London, 3*l.* 3*s.* to 24*l.*

Illustrated catalogues of the numerous articles manufactured by E. R. & F. TURNER will be sent post free, on application to the works, Ipswich, England; or to their London office, 52 Gracechurch-street, E.C.

Des diverses espèces de ces moulins concasseurs exposés, la planche ci-dessus repré-

sente le moulin No. 1 B, qui est le type de tous les autres. On peut citer, comme exemple de l'économie qu'ils permettent de réaliser, que des chevaux dans toute leur force et en plein travail sont aussi bien nourris avec trois boisseaux d'avoine concassée par ces moulins que par quatre boisseaux d'avoine non concassée. Cette économie est encore beaucoup plus considérable avec des chevaux trop jeunes, ou trop vieux, pour que la mastication s'opère convenablement. L'orge ainsi concassé est tout aussi efficace pour engraisser les bêtes à cornes et les porcs que s'il était moulu fin; tout déchet provenant de la poussière est évité, et la puissance motrice requise pour concasser étant à peine un dixième de celle nécessaire pour moudre, l'économie résultant de ce mode de préparation est manifeste. Ces moulins sont aussi parfaits comme concasseurs de graine de lin et de malt. Chaque dimension est construite avec ou sans moulin à fèves combiné sur la même charpente, et dont on peut se servir simultanément.

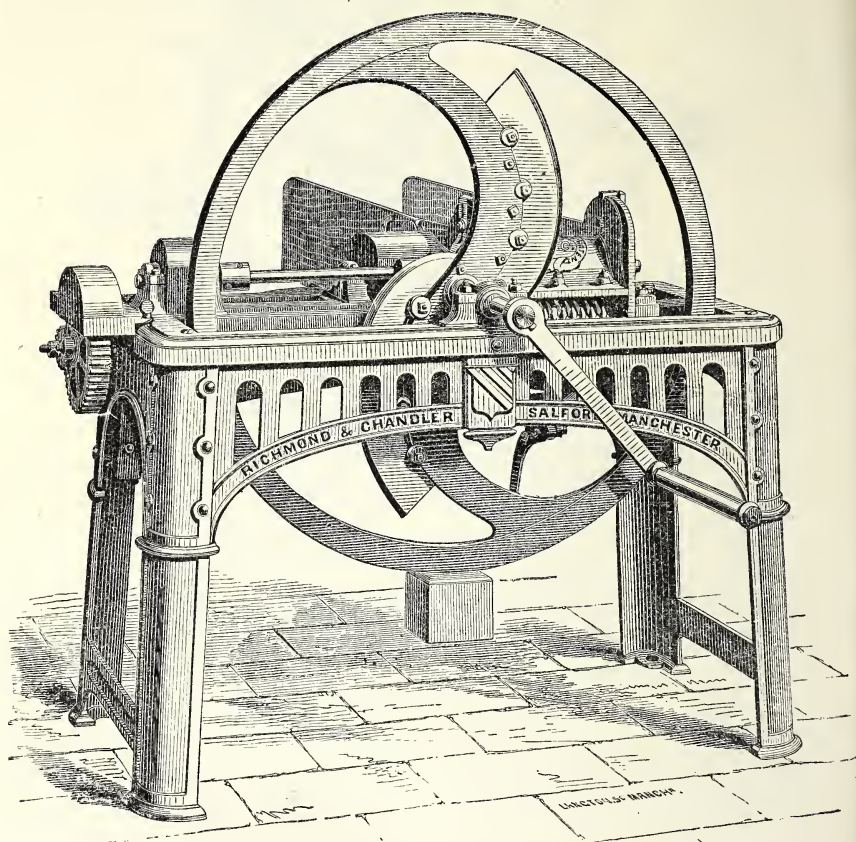
Prix à Londres, 80 fr. à 600 fr.

Des catalogues illustrés des nombreux articles fabriqués par E. R. et F. TURNER seront envoyés franco sur demande adressée aux usines Ipswich, Angleterre, ou à leurs bureaux à Londres, 52 Gracechurch-street, E.C.

RICHMOND & CHANDLER, *Salford, Manchester,*

Manufacturers of Patent Chaff Machines, Corn Crushers, Horse and Bullock Powers, Turnip Cutters, Steaming Apparatus, Bread-kneading Machines, &c. &c.

Constructeurs de Hache-pailles brevétés, Concasseurs, Manèges pour Chevaux et Bœufs, Coupe-racines, Appareils de Cuisson à la Vapeur, Pétrins mécaniques etc. etc.



Patent Chaff Machine.—*Hache-paille, breveté.*

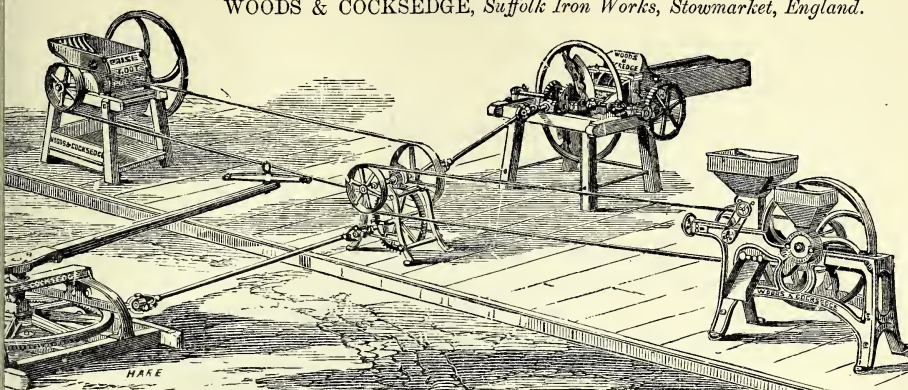
These celebrated machines have taken first prizes of the most important agricultural societies, including—

- 1st Prize of the Royal Agricultural Society of England;
- 1st Prize of the Royal Agricultural Society of Scotland;
- 1st Prize of the Royal Agricultural Society of Ireland;
- 1st Prize of the Adelaide Agricultural Society, Australia;
- Prize Medal of the International Exhibition, 1862;
- Prize Medal of the Vienna Exhibition, 1866.

Ces machines renommées ont remporté les premiers prix aux concours agricoles les plus importants, entre autres:

- Le 1^{er} Prix de la Société Royale d'Agriculture d'Angleterre;
- Le 1^{er} Prix de la Société Royale d'Agriculture d'Essoe.
- Le 1^{er} Prix de la Société Royale d'Agriculture d'Irlande;
- Le 1^{er} Prix de la Société d'Agriculture d'Adélaïde, Australie;
- Médaille à l'Exposition Internationale de 1862;
- Médaille à l'Exposition de Vienne, 1866.

WOODS & COCKSEGE, *Suffolk Iron Works, Stowmarket, England.*



Prize iron horse gear, with intermediate motion and clutch to throw out of gear in an instant, entirely of iron, very strong, for driving Woods & Cocksege's prize chaff-cutter, root pulper, crushing mills, pump, cotton gin, or circular saw, from the power of a pony to four horses; prices from 9*l.* 9*s.* to 27*l.* Awarded upwards of 40 prizes and silver medals the last three years.

The farmers' universal crushing mill, for preparing food for pigs, bullocks, horses, or poultry, for hand, horse, or steam power, for linseed, malt, barley, rye, wheat, beans, peas, or Indian corn, 5*l.* 15*s.* upwards.

Prize oil-cake breakers, for lambs, sheep, bullocks, or into powder for manure; hand, horse, or steam power, 2*l.* 10*s.*, 3*l.* 15*s.* to 9*l.* 9*s.*

Prize iron horse or bullock gear, with 2 force pumps attached for irrigation.

Prize thrashing machines for ponies, horses, and steam power.

Prize corn-grinding mills, with French burr-stones, 16 inches to 54 inches diameter.

Manège à chevaux, en fer (médaillé), avec mouvement intermédiaire et dent pour arrêt instantané, construit entièrement en fer, très-solide, pour faire mouvoir le hache-paille (médaillé) de Woods et Cocksege, décortiqueur à racines, concasseurs, pompe, machine à égrener le coton, ou scie circulaire, de la force d'un poney jusqu'à celle de quatre chevaux; prix de 236 fr. 25 c. à 676 fr. Ont remporté plus de 40 prix et médailles d'argent durant les trois dernières années.

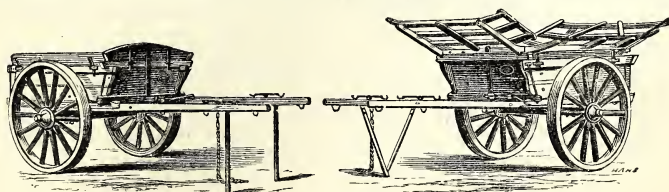
Concasseur universel du fermier, pour préparer la nourriture des porcs, bœufs, chevaux, ou de la volaille, mûe à la main, et par force de cheval ou de vapeur, pour graine de lin, malt, orge, seigle, blé, fèves, pois, ou maïs, 143 fr. 75 c., et au-dessus.

Concasseurs à tourteaux (médaillés) pour agneaux, moutons, bœufs, ou à réduire en poudre pour engrais; mus à la main par force de cheval ou de vapeur, de 62 fr. 50 c. et 93 fr. 75 c., à 236 fr. 25 c.

Manège à chevaux ou à bœufs, en fer (médaillé), avec deux pompes foulantes attachées pour l'irrigation.

Machines à battre (médaillées), pour poneys, chevaux, et force de vapeur.

Moulins à moudre le grain (médaillés), avec meules françaises, depuis 0 m. 41 c. à 1 m. 38 c. de diamètre.



First Prize Carts for Agriculturists or Contractors, twice awarded the Prize by the Royal Agricultural Society of England.

Price 11*l.* 11*s.* to 16*l.* 16*s.*

Illustrated catalogues in all languages, free by post.

Charrettes pour Agriculteurs et Entrepreneurs (premier prix) ont eu deux fois le prix de la Société Royale d'Agriculture d'Angleterre.

Prix depuis 288 frs. 75 c. jusqu'à 420 frs.

Catalogues illustrés dans toutes les langues, franco par la poste.

CLASS XLIX.

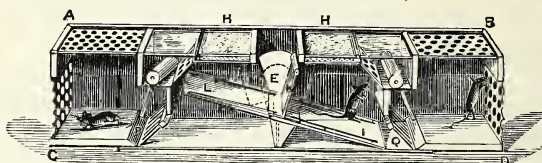
PULLINGER, COLIN, 10 Essex-street, Strand, London.

Perpetual and Automaton Self-Setting Mouse Traps.

Souricières automates, à action perpétuelle, se tendant d'elles-mêmes.

Immerwährende und sich selbst aufstellende Automat-Mausefallen.

Trappola da Topi ad azione perpetua automatica e sè-ritendente.



Its peculiar features are:—1. Every mouse resets it for the next mouse; 2. The same bait lasts for months; 3. It catches from 6 to 14 mice in one night; 4. It is one of the most ingenious traps ever invented, and soon saves its cost, which is from 3 francs each and upwards.

E the entrance.

L I the balance board or treadle.

C and D the chambers for the caught mice.

— — —

Les caractères distinctifs de cette souricière sont:—1. Que chaque souris prise la retend pour la souris qui lui succède.; 2. Que la même amorce dure pendant des mois; 3 Qu'elle prend de 6 à 14 souris en une seule nuit; 4. Enfin d'être une des plus ingénieuses souricières qui aient jamais été inventées, et de gagner rapidement à l'acheteur son prix, qui est de 3 francs et au-dessus.

E l'entrée.

L I la planche à bascule, ou marchette.

C et D les chambres pour les souris prises.

Ihre besondern Eigenschaften sind:—1. Jede Maus stellt sie wieder für die nächste Maus; 2. Dieselbe Lockspeise reicht für Monate; 3. Sie fängt von 6 bis 14 Mäuse in einer Nacht; 4. Sie ist eine der besten Fallen, welche je erfunden wurden, und man erspart bald ihren Preis, welcher ein Thaler und darüber ist.

E ist der Eingang.

L I ist das Balancirbrett oder Tritt.

C und D sind die Kammern für die gefangenen Mäuse.

— — —

Le sue caratteristiche principali sono:—1. Ogni sorcio la ritende per un altro sorcio; 2. Una stessa esca basta per mesi; 3. Può prender da 6 a 14 sorci per notte; 4. È la trappola più ingegnosa che sia mai stata inventata, e si riguadagna ben presto la spesa del costo, che è da tre franchi l'una in su.

E ingresso

L I bilico o pedale.

C e D ricettacoli pei sorci presi.

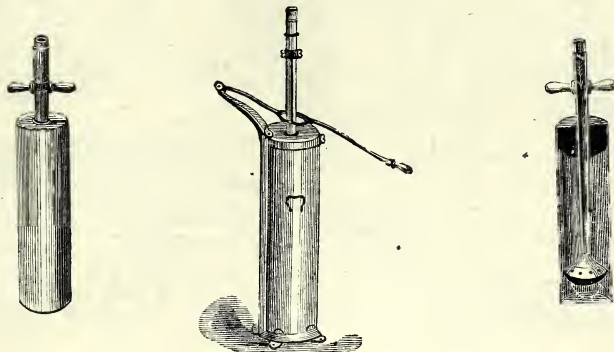
CLASS L.

ATMOSPHERIC CHURN, CLIFTON'S
PATENT.

Warranted to make butter from sweet milk in ten minutes, and from cream in five minutes, without the use of any chemical preparation, leaving the milk perfectly sweet and suitable for family use. This churn produces more butter, and of a finer quality, than any other churn. Persons desirous of witnessing the operation of this novel and useful invention are invited to call at SHED D, ENGLISH DEPARTMENT, BILLANCOURT, WHERE CHURNING TAKES PLACE DAILY.

BARATTE ATMOSPHÉRIQUE, SYSTÈME
CLIFTON.

À l'aide de ces barattes on extrait le beurre du lait frais en dix minutes, et de la crème en cinq minutes, sans faire usage d'aucune préparation chimique, et en conservant par conséquent au lait sa douceur et toutes ses qualités, de sorte, que, ayant fourni tout le beurre qu'il contenait, il peut être employé aux usages domestiques pour lesquels il est habituellement utilisé. ON FAIT LES EXPÉRIENCES TOUS LES JOURS MAISON D, DÉPARTEMENT ANGLAIS, BILLANCOURT.



PRICES.				£	s.	d.	
No.	0 to churn	$\frac{1}{2}$ gallon					
"	00	"	$\frac{3}{4}$ "	0	12	6	} with mop
"	000	"	1 "	0	13	6	
"	1	"	$1\frac{1}{2}$ "	0	15	0	
"	2	"	2 "	1	1	0	} complete with mop stand and extra handles
"	3	"	$2\frac{1}{2}$ "	1	3	6	
"	4	"	3 "	1	5	0	
"	5	"	4 "	1	7	6	

With Pump Attachments.

No.	6 to churn	4 gallons		3	5	0
"	7	"	5 "	4	5	0
"	8	"	6 "	5	5	0

PRIX DES BARATTES.

No.	0 pour baratter	2 litres		Fr.	
"	00	"	3 "	14	
"	000	"	4 "	16	} avec brosse
"	1	"	6 "	18	
"	2	"	8 "	25	
"	3	"	10 "	28	} complète avec tous les accessoires
"	4	"	12 "	30	
"	5	"	16 "	33	
				40	

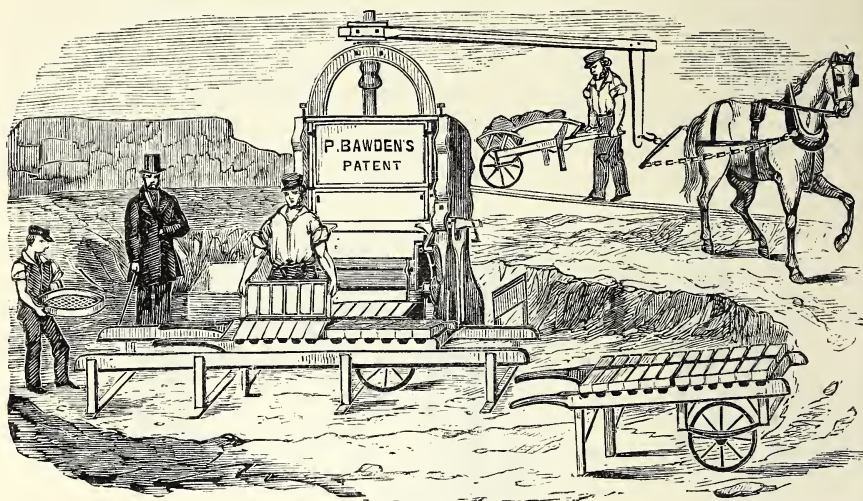
Avec Pompe attachée.

No.	6 pour baratter	16 litres		81
"	7	"	20 "	106
"	8	"	24 "	131

Pour marcher avec manège ou moteur à vapeur les barattes sont faites sur commande selon les capacités désirées. Prix depuis 78 francs.

ATMOSPHERIC CHURN COMPANY (Limited), 119 New Bond-street, London, W. AGENCY: Belgium—E. VANSCHEPDAIL FILS, 8 Boulevard Botanique, Brussels; Prussia—C. G. MÜLLER, Berlin.

PATENT FIRST PRIZE BRICK-MAKING MACHINES.

PATENT FIRST PRIZE BRICK-MAKING
MACHINES,

The best and cheapest in the world for all kinds of clay; make splendid bricks; worked by one horse, and with any labouring men.

Their simplicity and capability surprise everyone.

Price, No. 1 Machine . . . £70

„ No. 2 „ . . . £35

Send for a circular: address, P. BAWDEN,
49 Norland-square, Notting-hill, London, w.

MACHINES À FABRIQUER LES BRIQUES (ONT
OBTENU LE PREMIER PRIX), BREVETÉES,
les meilleures qui existent au monde, et coûtant
le meilleur marché, pour toutes les qualités
d'argile; ces machines fabriquent d'excellentes
briques, mues par un seul cheval, et avec n'im-
porte lesquels manœuvres.

La simplicité de leur construction et leur
puissance de travail étonnent tout le monde.

Prix, Machine No. 1 . £70 1,750f.

„ „ No. 2 . £35 875f.

Demandez une circulaire: s'adresser à P.
BAWDEN, 49 Norland-square, Notting-hill,
Londres, w.

PATENTIRTE BACKSTEIN-FABRICATIONS-
MASCHINEN (ERSTER PREIS),

die besten und billigsten in der Welt für alle
Arten von Lehm, machen ausgezeichnete
Backsteine; werden gearbeitet durch ein Pferd
und mit irgend welchen Tagelöhnern.

Ihre Einfachheit und Leistungen über-
raschen Jedermann.

Preis, Maschine No. 1 . Thlr. 466 $\frac{2}{3}$

„ „ No. 2 . 233 $\frac{1}{3}$

Sende für ein Circular. Adresse: P. BAWDEN,
49 Norland-square, Notting-hill, London, w.

MACCHINE DA MATTONI PATENTATE PRIMO
PREMIO,

le migliori e più economiche al mondo per
ogni sorta di argilla; fanno mattoni eccellenti,
sono attivate da un cavallo, e con qualunque
operaio.

Per semplicità ed effetti sono sorprendenti.

Prezzo, Macchina No. 1 . . £70 st.

„ „ No. 2 . . £35 st.

Per circolari, rivolgersi a P. BAWDEN, 49
Norland-square, Notting-hill, Londra, w.

BOURNE, STEPHEN, *Headstone Drive, Harrow, Middlesex, N.W.*

Patent Flexible Diaphragm, Elastic Valves, and Deodorised India-Rubber.

Prize Medal and Honourable Mention at Dublin and Oporto Exhibitions, 1865.

The 'Patent Flexible Diaphragm' is a thin membrane placed within a cask or other vessel, to the sides of which its edges are attached. Always floating on the surface of the liquid, it opposes an impenetrable barrier to the access of atmospheric air, and descending as portions of fluid are withdrawn, effectually preserves the remainder. Wine, beer, &c. have thus been kept in use for a year with-

The 'Elastic Valves' are of two varieties. The one, applicable for use either with or without the diaphragm, has an *outward action* only. It consists of a disc of india-rubber covering a small orifice, and so prepared that, upon the pressure of the confined gas or fluid (which, but for its presence, would have unlimited exit), it becomes porous, and thus permits of a graduated escape to the desired extent. The other has an



out being impaired in quality, and it is actually in operation for the preservation of Burton ale and London stout. Vessels as drawn above are suitable for wines or other liquids, for domestic, medical, or scientific purposes.

The material employed for the diaphragm is entirely deprived of all odour or power of imparting flavour, by a peculiar process of treating with animal charcoal, now applied to the purification of garments and other articles made of india-rubber.

inward action only, and consists of a small cylinder of wood, metal, &c., so placed in the cask or other vessel that one end opens externally, the other on the inside. The lower part of this cylinder is covered with an elastic cap, having several slits, which, though remaining tightly closed against any pressure from within, yield to that of the air as it seeks to enter, when the liquid is allowed to flow out.

FLEET & CO., *Walworth, London.*

Steam Soda-Water Machine and Bottling Apparatus. Patentees and Sole Manufacturers.

We deem this to be the most perfect SODA-WATER MACHINE ever invented, as it is equally adapted for use at home and abroad, and for the Packet Service.

1st. By the union of a steam engine with a soda-water machine, which can be used at the same time to drive the brushes for cleansing the bottles or any other purpose for which steam power is applicable.

2nd. By dispensing, with shafting, drums, &c., &c., thus rendering it peculiarly portable and not easily disarranged, so that it can be brought into immediate use.

3rd. By producing double the quantity of soda water, lemonade, and all aerated waters, of a finer quality than any other machine hitherto invented, and being of so simple a construction that the *ordinary labourer* may be employed with the same advantage as the most *experienced bottler*. This, in tropical climates, where the cool beverages prepared by these machines are necessities of life to Europeans, is of the greatest value.

4th. The bottling apparatus, which forms so prominent a feature of the soda-water machine, is equally useful for corking wine or any

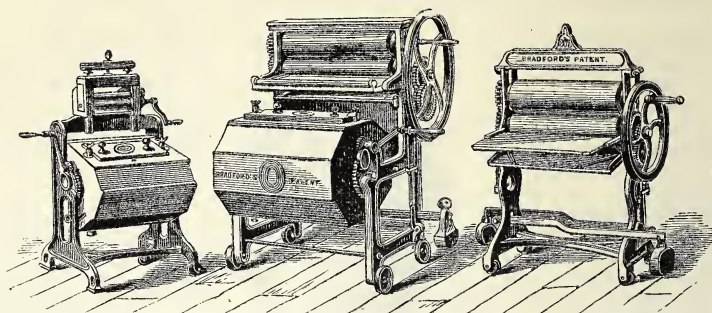
other liquid with a rapidity and security from leakage and breakage unequalled.

STEAM SODA-WATER MACHINE AND BOTTLING APPARATUS, including gas generator, gasometer, steam engine, with boiler and furnace, complete and ready for use . . .	£100 0
STEAM SODA-WATER MACHINE AND BOTTLING APPARATUS, including gas generator, gasometer, and steam engine, without boiler . . .	80 0
SODA-WATER MACHINE, BOTTLING APPARATUS, gas generator and gasometer	65 0
BOILER, with furnace complete, from	20 0
STEAM ENGINE	20 0
BOTTLING APPARATUS	20 0

Caution.—Messrs. FLEET beg to acquaint Manufacturers of Aerated Waters, and all others whom it may concern, that they are the inventors, patentees and sole manufacturers of the only steam soda-water machine and soda-water machines with patent bottling apparatus united. Manufacturers and purchasers will be held responsible for any infringement of this patent.

Two Honourable Mentions, International Exhibition, 1862; Prize Medal, York, 1866.

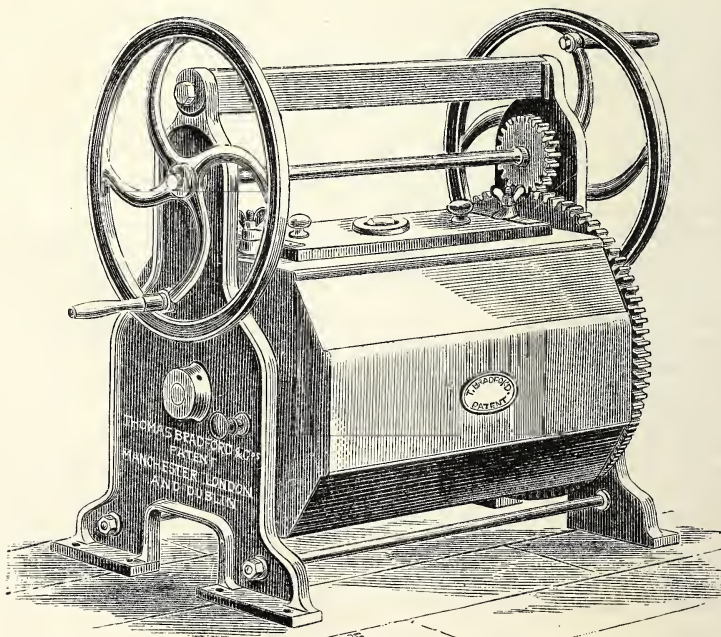
BRADFORD, THOMAS, & CO., 63 Fleet-street, London, E.C.; Manchester; and Dublin.



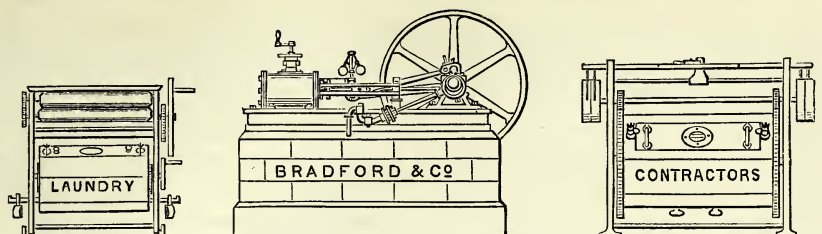
Bradford's New Patent 'Vowel' Washing, Wringing, and Mangling Machines.

Awarded the only International Prize Medals of Dublin, Stettin, and Cologne, also Four Silver Medals, and several first-class Money Prizes, by English Agricultural Societies this year, and the only York Exhibition Medal, 1866.

	£	s.	d.		£	s.	d.
Vowel A, equal to 12 shirts . . .	3	10	0	Vowel E, combined Machine			
" I, " 20 " . . .	5	10	0	(family size) }	8	8	0
" U, " 30 " . . .	7	10	0	Vowel O, combined Machine, Hotel,			
" A, with B Acorn Wringer . . .	4	18	0	School, or Mansion }	12	12	0
" I, " C " . . .	7	12	0	Vowel W, combined Machine, large			
" U, " D " . . .	9	15	0	Hotel, Hospital, or Workhouse }	15	15	0



Vowel A 3, Washing Machine, £15 15s.



Bradford's new patent combined Vowel A E.
Bradford's steam power 'Vowel' washing machine.

Bradford's steam power combined washing and wringing machine.

Bradford's new patent 'buffer rubber'.

Bradford's new patent 'vowel' washing arrangement.

Bradford's improved vertical steam engine.

Bradford's newly constructed hand drying machine.

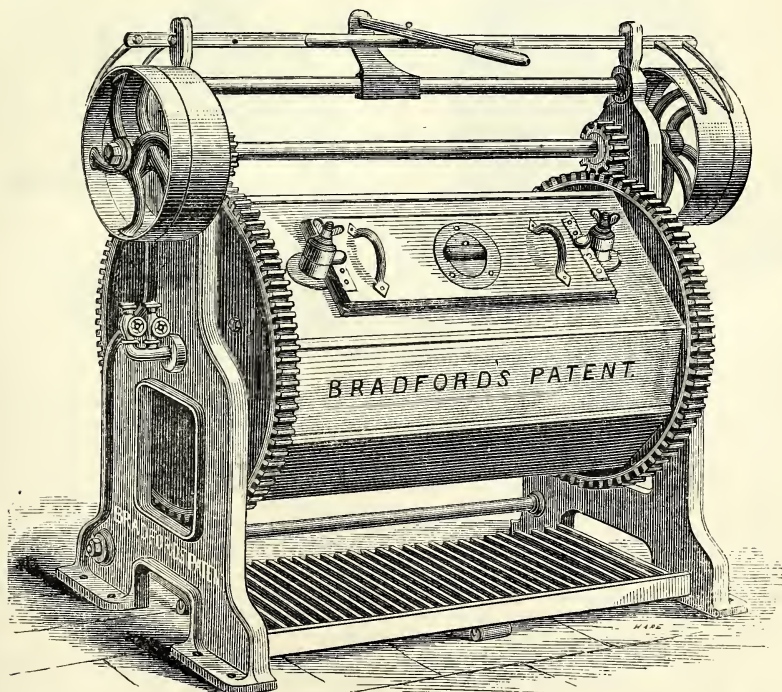
Bradford's wringing and mangling machines.

Bradford's 'Acorn' indiarubber wringing machine.

Bradford's registered wringing, rinsing, and blueing trough.

Bradford's patent 3-roller mangle.

- „ crimping machines.
- „ goffering machines.
- „ linen presses.
- „ laundry stoves.
- „ improved box churns.
- „ new patent churn.
- „ butter making machine.
- „ portable boilers, with and without steamers.
- „ new patent 'Phoenix' cinder sifter.



Vowel A 7 (for Steam-power), £20. Vowel A 9, £30.

KENT, GEORGE, 199 *High Holborn*, London, W.C.

Inventor, Patentee, and Manufacturer of the Rotary Knife-Cleaning and Polishing Machine, and various kinds of new and improved Patented Articles of Domestic Utility, all promoting Economy, Cleanliness, and Comfort, effecting a saving of Time and Labour, and the better performance of Household Work, catalogues of which may be had gratis, containing 50 illustrations.

Erfinder, Patenteigenthümer und Fabricant der drehbaren Messerreinigungs- und Polir-Maschine und verschiedener Arten neuer und verbesserter patentirter Artikel von häuslicher Nützlichkeit, welche Ersparniss, Reinlichkeit und Bequemlichkeit befördern, Zeit und Mühe ersparen, die bessere Verrichtung von häuslicher Arbeit bewirken und von welchen Deutsche Cataloge, 50 Illustrationen enthaltend, gratis erlangt werden können.

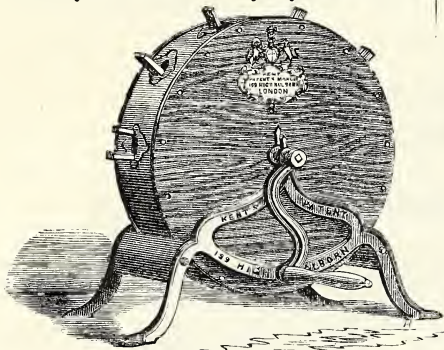
KENT'S PATENT ROTARY KNIFE-CLEANING AND POLISHING MACHINE.

PRICES AND SIZES.		£	s.	d.
For 9 knives and a carver	.	14	14	0
" 8 "	"	12	12	0
" 7 "	"	10	10	0
" 6 "	"	9	0	0
" 5 "	"	7	10	0
" 4 "	"	6	0	0
" 3 "	"	4	15	0
" 2 "	"	3	3	0
" 1 "	"	2	2	0

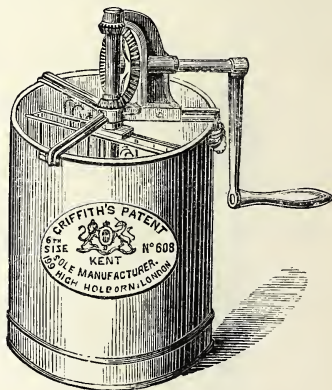
KENT's Knife Cleaning Machine is used in the palaces of her Majesty the Queen of England, and in nearly every royal residence in Europe; in the mansions of the nobility, and in the houses of private families throughout Great Britain; in the mess-rooms of the army and navy, on board the royal yachts, and in

chines not bearing this mark, are deceptive imitations, resembling KENT's in external appearance, but not possessing those essential parts and arrangements which make KENT's machine so effective and durable, the principle of which is protected by royal letters patent, the last patent having been granted January 1865.

Patent Compound Action Mixing Machine.—This invention introduces an entirely new principle in the construction of mixing machinery, which, by a single revolution of the handle, gives 288 strokes, or divisions of the matter submitted to its operation; and, in fact, so powerful and effective is the action of this mixing machine that it will even incorporate water with oil or fatty matter.



every passenger steam-ship on home and foreign stations, including the 'Royal Mail Steamers,' the 'Peninsular and Oriental,' the 'African,' the 'North of Europe,' and the 'Pacific;' also in the universities, colleges, scholastic establishments and public institutions of England; the mansion-house of the Lord Mayor of London, and the halls of the city companies; in every club-house, hotel and restaurant of importance in the kingdom. It is also extensively used in the colonies, and in addition to the patronage above mentioned, its utility is verified by the award of prize medals of the *International Exhibitions*, London, 1851 and 1862; *Nice*, 1865; *Cologne*, 1865. It is necessary to observe that all KENT's machines bear his trade mark (a shield) surmounted by the royal arms, with the words 'KENT, Patentee and Manufacturer, 199 High Holborn, London' therefore, rotary knife cleaning ma-



It is extensively used by makers of fancy soaps and pomades, and by manufacturers of other liquid and semi-liquid compounds, as also by cooks and confectioners, who find it beat up their mixtures to a degree of excellence never before attained. The machines are made in sizes adapted for any quantity, from one quart to thousands of gallons. Price, from 21s.

Patent Churn, on the same principle as the above mixing machine, which makes butter more quickly than any other churn at present known. 27s. and upwards.

Patent American Sausage and Mincing Machine, unsurpassed by any other invention for the purpose, and none so easily cleaned. Price 12s. 6d., 21s., 42s.

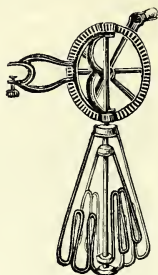
Bread Making Machines from 40s.

Patent Compound Action Egg-Beater, for family use, for beating up all kinds of egg mixtures for puddings and cakes, also for whipping creams. It produces a batter, far superior to any that can be made, in the ordinary mode, and in one-fourth the time.



6s. 6d.

Egg beater for Family Use.



5s.

Patent Milk Saver, for preventing milk boiling over, or burning, even when placed on a fierce fire. Prices 1s., 1s. 3d., 1s. 6d., 2s.

Patent Triturating Strainer, extensively used and highly valued for preparing ingredients for making soups, sauces, purées, gravies, jams, &c. Price 1l. 7s. 6d. for families, and 1l. 17s. 6d. for hotels.

Patent Rotary Potato Masher by which potatoes can be instantaneously mashed more finely and perfectly than by any other means; also grates bread and other culinary materials with equal perfection and rapidity. Price from 12s. 6d.

Patent Bread Cutter, with regulating gauge, by which the slices can be cut to any required thickness, very expeditiously. Prices from 14s. 6d.

Family Cocoa Mill (the first ever produced that can grind cocoa berries or nibs) valuable to all who desire pure cocoa. Price 12s. 6d.

Patent Parer for Oranges, Lemons, Apples, &c., which pares, cores, and slices simultaneously. Price 8s. 6d.

Patent Ice-Cream Making Machines, for freezing with or without ice. From 35s. Moulds for ditto.

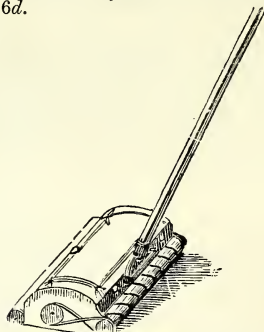
Improved Patent Ice Safes and Refrigerators, from Three to Sixty Guineas.

Clothes Wringer, India Rubber Rollers with KENT's Improvements. Price 1l. 10s.; ordinary kinds, 12s. 6d.

Patent Washing and Wringing Machines and Portable Mangles. Price 2l. 15s.

Rotary Cinder Sifter, renders unobjectionable a very disagreeable duty, insures cinders being properly sifted, prevents loss, increases cleanliness, and will soon save its cost. From 3l. 3s.

The Patent Champion Carpet Sweeper. Price 15s. Raises no dust, takes up all dirt as it moves, sweeps cleaner, and wears carpets less than any other broom. The dust, lint, and even hairs, pins, needles, &c., are taken up directly into the box, and there retained as the sweeper moves along, instead of being accumulated, driven over the entire surface, and forced into the grain of the carpet, as is usual with ordinary brooms. It is warranted to sweep cleaner than brooms, and without raising any lint or dust to soil the furniture, pictures, ornaments, &c., or to stifle the lungs. The brush part will last for years, and can be renewed for 3s. 6d.



The Champion Sweeper. Price 15s.

KENT's Messer-Reinigungsmaschinen werden in 9 verschiedenen Grössen, von 2 bis 9 Messer auf ein Mal reinigend, zu Preisen von 14 Thlr. bis 98 Thlr., gemacht.

Sie werden gebraucht in den Palais Ihrer Majestät der Königin von England und in fast allen fürstlichen Residenzen in Europa; in den Häusern des Adels und in denen von Privatfamilien durch ganz Grossbritannien; in den Officiersküchen der Armee und Flotte und auf allen Passagier-Dampfschiffen, welche in England und auswärts stationirt sind; ebenso in den Universitäten, Collegien, Schulen und öffentlichen Instituten Englands; und in jedem Clubhouse, Hotel und Restaurant von Wichtigkeit.

Ihre Nützlichkeit ist durch die Zuerkennung von Preismedaillen von den *internationalen Ausstellungen zu London, 1851 und 1862, zu Nizza, 1865, zu Cöln, 1865*, bestätigt worden.

Es ist nöthig zu bemerken, dass alle Maschinen KENT's sein Fabrikzeichen haben, ein Schild mit dem königlichen Wappen, nebst den Worten 'KENT, Patentee and Manufacturer, 199 High Holborn, London;' folglich alle Dreh-Messerreinigungsmaschinen ohne dieses Zeichen are betrügerische Nachahmungen, da sie KENT's Maschinen nur in äusserer Erscheinung darstellen, aber nicht jene wichtigen Theile und Vorrichtungen besitzen, welche die Maschinen KENT's so brauchbar und dauerhaft machen, deren Princip durch königlichen Patentbrief geschützt ist; das letzte Patent wurde im Januar 1865 ertheilt.

CLASS LI.

PORTER, J. T. B. & CO., *Engineers, Lincoln, and 7 John-street, Adelphi, London.*

Manufacturers of gas works of any magnitude for the supply of towns, villages, man-sions, factories, coal mines, &c. &c.

Manufacturers also of special apparatus adapted to produce gas from coal, wood, resin, fat, tallow, animal and vegetable oils, and many other substances which may be obtained where coal is difficult to be procured.

They also manufacture retorts, condensers on various improved principles, purifiers, gas holders, governors, meters, experimental apparatus of all kinds, various kinds of improved valves, and every description of machinery required for the production of gas in the most modern and scientific manner.

Also wrought and cast iron girders, iron roofs, iron tanks of any size. Hot-water apparatus for heating, and apparatus for distilling any substance—such as petroleum, shale, coal, cotton-oil, and other matters.

Prospectuses and every information on application.

Constructeurs d'usines à gaz de toutes grandeurs pour éclairage de villes, bourgs, hôtels, châteaux, manufactures, mines de houille, etc. etc.

Fabriquent aussi des appareils spéciaux adaptés à la production du gaz tiré de la houille, du bois, des résines, des graisses, du suif, des huiles animales et végétales, et de beaucoup d'autres substances qui peuvent s'obtenir alors qu'il est difficile de se procurer de la houille.

Ils fabriquent également des cornues, des condensateurs d'après divers principes perfectionnés, des épurateurs, réservoirs à gaz, régulateurs, compteurs, appareils d'expérimentation de toutes sortes, diverses espèces de soupapes perfectionnées, enfin tous instruments et mécanismes nécessaires pour la production du gaz, d'après les systèmes les plus modernes et les plus scientifiques.

Manufacturent en outre longrines en fonte et fer forgé, toitures en fer, citernes en fer de toutes dimensions; appareils de chauffage par l'eau chaude, et appareils à distiller toutes substances—telles que huile de pétrole, de schiste, de houille, de coton, et autres matières.

Prospectus et tous renseignements sur demande.

TYLER, J. H., *Engineer, Abbey Iron Works, Bermondsey, London.*

Manufacturer of every description of Tanner's Tools and Machinery.

Fabricant de toutes sortes d'Outils et Machines pour Tanneurs.

Fabricanten von allen Sorten von Lohgerber-Werkzeugen und Maschinerie.

Fabbricante di ogni genere di Utensili e Meccanismi da Conciapelli.

This bark-mill is fitted with steel cutters (in addition to steel teeth), being much more durable than cast iron, and, when worn out, are easily renewed, rendering an entirely new cone or cylinder unnecessary. The mill will grind 20 cwt. per hour, and is suitable for all kinds of bark, either rind or hatched.

Ce moulin à tan est muni de coupes en acier (en outre de dents également en acier), qui sont beaucoup plus durables que la fonte et, quand ils se sont usés, se renouvellent facilement, rendant ainsi un nouveau cône ou cylindre inutile. Ce moulin broiera 20 cwt.—1,270 kil.—par heure, et convient pour toutes espèces d'écorce, pelées ou hachées.

Diese Lohmühle ist mit Stahlmessern (ausser den Stahlzähnen) versehen, welche viel dauerhafter als gusseiserne sind und sehr leicht erneuert werden können, wenn sie abgenutzt sind, wodurch ein neuer Zapfen oder Cylinder unnöthig wird. Die Mühle zermahlt 20 Centner per Stunde und eignet sich für alle Arten von Borke, entweder Rinde oder kleine Borke.

Questo mulino da scorza tannina è fornito di taglienti d'acciaio (in aggiunta ai denti d'acciaio), che sono molto più durevoli che quelli di ferro fuso, e, quando si sono usati, facilmente rinnovati, rendendo non necessario un nuovo cono o cilindro. Il mulino macina 20 cantara all'ora, ed è adattato per ogni sorta di scorza in pezzi grossi o minuti.

CLASS LII.

PRIME MOVERS, BOILERS, AND ENGINES,

SPECIALLY ADAPTED TO THE REQUIREMENTS OF THE EXHIBITION.

This class embraces those apparatus and machines which are exhibited in connection with the motive power of the Exhibition, as well as those used by the British Executive for facilitating the unloading and placing of the goods in the building. Objects exhibited in this class will all more or less have been subjected to a practical test as to their efficiency, and some of them, such as the boilers, driving engines, shafting belts, &c., will be in use during the whole period of the Exhibition. Almost the whole of the apparatus necessary to meet the requirements of the motive power has been lent by exhibitors, who, on being appealed to, with liberality placed their various machines gratuitously at the disposal of the Commissioners.

GENERAL ARRANGEMENTS.—The general steam arrangements are as follows:—The boilers are grouped together in a building outside the Palace, whence steam is taken by a single main to the machinery gallery; thence it is distributed to the various engines and machines requiring it; the exhaust or waste steam is reconducted by a pipe situated in the same channel as that which contains the steam main, to the chimney attached to the boiler-house.

There are six distinct engines which give motion to the various lines of shafting by means of pullies and driving belts.

The curved lines of the building rendered it impossible for any two lengths of shafting to be in the same straight line; hence, wherever it is necessary for one engine to drive several lengths, they are joined together with universal couplings. The application of universal couplings on so large a scale is a novelty, and from the power to be transmitted and other requirements the question presented some difficulties.

COAL.—The fuel used for the generation of steam is Welsh coal, known as the Marine Merthyr, and is supplied by the firm of Messrs. Dixon and Harris. It is weighed by a machine exhibited by Mr. David Hart, and so constructed as to indicate weights with a very high degree of accuracy.

BOILERS.—The boilers are collectively of 198 nominal horse-power, but could if need be, and very likely at times will, indicate a considerably greater force.

The three largest boilers, of 46 nominal horse-power each, are supplied by Messrs. Galloway, of Manchester. They are cylindrical, with flat ends, and contain the usual double

furnace flues, joined beyond the fire bridge to an oval back flue, which is fitted with Messrs. Galloway's patent conical water tubes. These tubes are placed across the flues and serve to strengthen them as well as to increase the heating surface and promote rapid movement of the water.

The makers are of opinion that a conical form specially aids the circulation, while it also permits of the tubes being more readily fixed and withdrawn. They further aver that the position of the tubes is such that the *quality* of the heating surface obtained by their use is more than ordinarily high. The boilers are surmounted by cylindrical steam chests, and the main pipe connecting them together is furnished with a couple of wrought-iron disc expansion joints.

Messrs. J. & F. Howard, of Bedford, supply a boiler of 30 horse-power, nominal, on a principle different from that ordinarily in use. It consists of a series of vertical wrought-iron tubes forming the water and steam space, which are suitably connected together at their tops and bottoms; the fire is contained in a furnace outside the boiler, the flame and heated air, after they have passed the fire-bridge, are kept circulating amongst the tubes by means of partitions. Being made in pieces this boiler is particularly portable, and it may readily be constructed to stand a very high pressure.

Messrs. Hayward & Tyler, of London, also supply a 30 horse-power boiler very similar in principle to that last described; both makers claim economy in fuel in addition to other advantages for their systems.

FEED ARRANGEMENTS.—The boilers are supplied with water both by force pumps and injectors, which can be used either together or separately.

DONKEY PUMPS.—Messrs. Carratt, Marshall, & Co., of Leeds, send a direct-acting donkey pump. It is furnished with suctional and compressional air-vessels. The piston of a 6" steam cylinder drives a $4\frac{1}{4}$ " plunger with an 8" stroke. The makers state that the pump can conveniently make 90 strokes per minute.

The second donkey pump is made by Messrs. Brown, Wilson, & Co., of London, it is compact and of simple construction. Like the former one, it is direct acting; a $4\frac{5}{8}$ " steam piston with an 8" stroke drives a $2\frac{3}{4}$ " plunger. The makers give from 100 to 150 strokes per minute as the rate at which it should be worked. The valve of the steam cylinder is

driven direct from a cam on the main shaft of the fly-wheel which passes through the valve-box.

INJECTORS.—Messrs. Sharp, Stewart & Co., of Manchester, have supplied an injector to feed the three Galloway's boilers; it is on the well-known Gifford principle, but is modified with a view to the removal of all packing from the interior of the instrument, an arrangement which would appear to be desirable.

Mr. Andrew Barclay, of Kilmarnock, exhibits also a modified form of injector, which has for its object increasing the depth of suction at which the instrument will work, and permitting a higher temperature than usual of feed water to be used.

Messrs. E. Green & Sons, of Wakefield, have fitted up a fuel economiser. The principle of the apparatus is to absorb any surplus heat left in the gases and air after they have ceased contact with the boilers, and to utilise it by raising the temperature of the feed water; this is effected by causing the latter to circulate through a series of tubes placed in the flue leading from the boiler-house to the chimney. The efficiency of the apparatus obviously depends on the temperature at which the gases leave the boilers.

STEAM PIPES.—The boilers supply steam through a 10" pipe common to the group at a boiler pressure of 60 lbs. to the square inch, which will be reduced in the building. The diameter of the main exhaust pipe is 15"; the flanges of the latter are not turned, the joints being made with india-rubber washers, supplied by the North British Rubber Company.

The steam pipes inside the boiler-house in connection with Messrs. Galloway's boilers are covered with Spence's patent nonconducting composition, the nature of which is such that it accommodates itself to the varying expansion of the pipes. It is composed of the best nonconducting materials pounded and mixed together. They are applied to the pipes when under steam, in the shape of a plaster, forming successive layers to the required thickness.

Inside the Palace the pipes are covered by Messrs. Croggon with their inodorous hair felt, which is laid round the pipe and held in its place by a sewn leather cover.

Besides those attached to the boilers a main stop valve is placed just within the building, so that the whole steam supply can, if required, be cut off; stop valves are also introduced at the points of departure of the 6" mains, and thus the supply of steam to each section can be controlled.

The alteration in length of the steam pipes owing to change of temperature is provided for by stuffing box expansion joints. These, together with the steam troughs, shafting, pulleys and universal joints, are made by Messrs. Bryan Donkin & Co., of London.

The steam traps for catching the condensed water from the pipes are of simple construction and efficacious.

UNIVERSAL COUPLINGS.—The universal couplings are a modification of the ball and socket joint with moveable feathers; their position rendered it desirable that a neat appearance should be observed, and it was also of importance, if possible, so to design the coupling that it should present nothing which would be liable to cause accidents by catching.

The use of any form of universal coupling except bevelled wheels (which were inadmissible) causes a variation in the relative rates of the shafts so coupled, but owing to the smallness of the angle of deviation this, in the present instance, is of no practical moment.

SHAFTING.—The shafting is of three sizes, viz.: 3½", 3", and 2½" diameter, and, running at 120 revolutions per minute, receives its motion by means of belting from the prime movers.

BELTING.—The belts are supplied by four manufacturers.

The India-rubber, Gutta-percha, and Telegraph Works Company use vulcanised india-rubber and canvas, the latter being made of the best sea island American cotton; the belts are cut from one piece of canvas, and having been prepared with india-rubber are subject to pressure in the course of vulcanising.

The North British Rubber Company make their straps of the first quality of cotton canvas, known as American navy cloth; it is arranged in plies according to the strength required, and cemented together with india-rubber, the outside layer of which is specially prepared; the system of india-rubber and canvas is then vulcanised, and thereby put into a fixed condition unaffected by wet or changes of temperature.

The Tanned Leather Company of London send belts made from the best oak bark tanned leather. They exhibit also an edge laid 12" strap, which is formed from strips of leather, cut to the required thickness, and laid edgewise, they are joined together by transverse pieces passing through the width of the belt; by this method a uniform band may be made of indefinite length.

Messrs. Hepburn, of London, also supply straps. They are made of the middle of English ox hides and tanned with oak bark only, the leather having been cut and stretched, and hand-sewn.

DRIVING ENGINES.—The cotton spinning machinery is driven by a pair of horizontal non-condensing coupled engines, made by Messrs. Galloway and Sons. They are together of 100 horse-power, with 26" cylinders and 3' stroke; the working parts are contained within the bed plate, which is a single casting; the slide valves are on the usual system, and cut on the steam edge for expansion. Bessemer steel enters largely into the construction of these engines, which have been specially designed with a view to simplicity, strength, and compactness.

Messrs. Hick, Hargreave, and Co., of Bolton, send an engine which is fitted with Corliss's

patent valve-gear; the diameter of the steam cylinder is 16" with a 3' stroke; this valve-gear cuts off the steam at the required point almost instantaneously; it is effected by a trigger action set free through the intervention of the eccentric; the valves are cylindrical slides, and the cylinder is provided with a separate steam and exhaust valve at each end. The latter are kept open the full period of the stroke, while the former are closed by the governor at points depending on the load on the engine, thus no throttle valve is required. The engine shown is high pressure, but the system is equally capable of being applied to a condensing engine.

Messrs. Fox, Walker & Co., of Bristol, drive a couple of lengths of shafting with a nominal 10 horse-power engine, having a steam jacketed 10" cylinder with a 14" stroke; it is furnished with a separate expansion valve, which can be varied at will while the engine is running; the upper surface of the bed plate is planed to receive the various fittings, and the reciprocating parts are carefully balanced.

Messrs. Ransomes & Sons, of Ipswich, drive two separate lengths of shafting with a couple of their portable agricultural engines, exhibiting two classes of manufacture. The engines are not shown furnishing their own steam, which is supplied from the main.

One engine with a 9" cylinder and 12" stroke is fitted with an ordinary slide, and has no special expansion apparatus; it represents that type of machine which is sought for by those who study simplicity of parts and cheapness of first cost rather than economy of fuel.

The second engine has double cylinders of 9" diameter and 12" stroke, the grade of expansion variable from one-seventh to one-third the length of the stroke is effected by a separate expansion valve; the cylinders and covers are jacketed, and the feed arrangements such that the water enters the boiler at a very high temperature.

Mr. C. T. Porter exhibits an Allen engine made by the Whitworth Company, of Manchester, which is chiefly remarkable for the high speed at which it runs, 200 revolutions a minute, and for the peculiarity of the valve gear. As in Messrs. Hicks's engine, the throttle valve is done away with, and a variable rate of expansion obtained by putting the slide valve in connection with the governor.

The cylinder is fitted at each end with two valves; the action of the exhausts are invariable, the steam valves are in equilibrium, and so arranged as to make four openings at the same time into the steam port.

This engine has a 12" cylinder with a 24" stroke, and is furnished with a condenser; the usual form of air pump and plunger is replaced by a single acting ram which works direct from the piston.

The whole of the parts in motion are very carefully balanced, and the various wearing surfaces made large, in order, as far as possible, to meet the requirements of a high speed engine.

The Whitworth Company state that as regards economy of fuel, this system gives excellent results.

TRACTION ENGINES.—Messrs. Aveling & Porter, of Rochester, and Messrs. Fowler, of Leeds, offer traction engines which are capable of dragging very heavy weights on ordinary roads; these machines are readily and certainly controlled, and while much more powerful, are more easily managed than a team of horses.

Where railways are not available, and heavy goods require to be moved, it is probable that steam power will be increasingly employed. Paris horses pay little attention to the steam rollers in constant use there, and traction engines are certainly not more terrible. Messrs. Ruston, Procter & Co., of Lincoln, have placed one of their small locomotives at the disposal of the British Executive.

LIFTING APPARATUS.—The entrance of the heavy pieces of machinery into the building, and the general manipulation of the packages of goods, has been much simplified by the use of steam travelling cranes; indeed, the facilities of despatch thereby afforded could have been got in no other way. Five steam cranes have been placed at the disposal of the executive commission.

The crane supplied by Messrs. James Taylor & Co., of Birkenhead, is fitted, in common with the others, with double cylinders, and its gear is so arranged that the whole of the motions of the jib, including elevating and depressing, are performed by steam, under the control of one man; the crane is also self moving, and can be used as a locomotive.

Messrs. A. Shanks & Son lend a 6 ton crane, which, though portable, is not self-propelling; it is readily under the control of one man, and works ordinarily at a pressure of 60 lbs. per square inch.

Messrs. Russell exhibit a 5 ton crane, the swinging gear of which is so arranged, that should the jib, while in motion, come in contact with any obstacle, the turning action is suspended, and a breakage avoided.

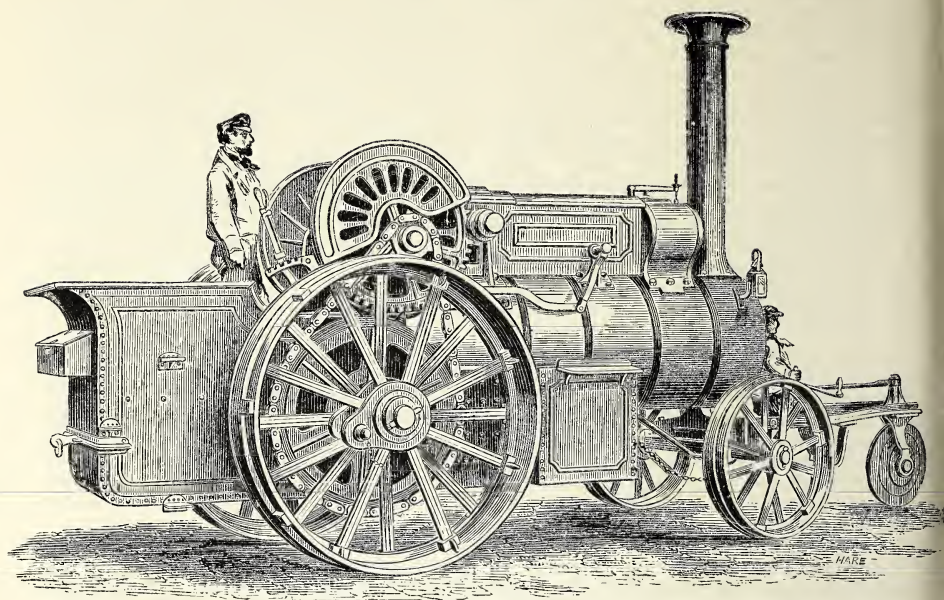
Messrs. Appleby Brothers send a crane fitted with a Derrick jib; like the others, the whole of its movements can be controlled by a man or an intelligent boy from the foot plate, and the machine can be moved longitudinally by steam.

Messrs. Bowser & Cameron also exhibit in Class 52 steam lifting apparatus. Well-constructed steam cranes do not consume more than about half a cwt. of coal per hour, and as one person can work them, the cost of moving any considerable quantity of goods by their agency becomes very small.

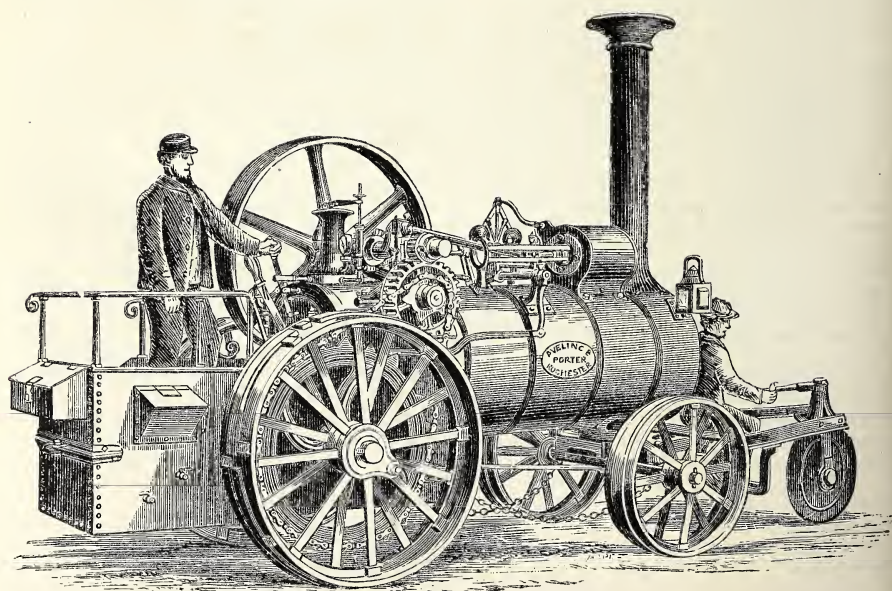
Messrs. Tange Brothers, of Birmingham, lend Weston's differential pulley blocks and hydraulic jacks; in the latter great compactness, combined with strength, is obtained by substituting the principle of the hydraulic press for the rack and pinion gear usually employed.

FRED. BEAUMONT, Capt. R.E.

A. V. & P., 72 Cannon-street, London, E.C.
Works at Rochester, Kent.



Road Locomotive Engine.

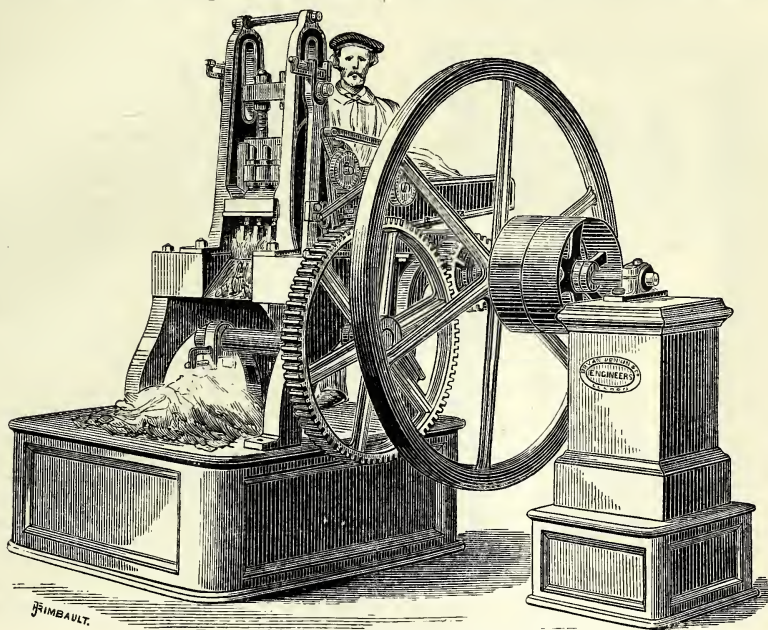


Agricultural Locomotive Engine.
Prices, from £300.

DONKIN, B., & CO., *Ingenieurs-Mécaniciens, à Bermondsey, Londres.*

Constructeurs de Machines à vapeur et Chaudières. Turbines. Machines pour la fabrication du papier. Lessiveurs sphériques rotatifs. Presses hydrauliques. Piles à cylindre. Lames et Platines en acier et Machines à raboter les Lames et Platines. Épurateurs. Plaques en bronze perforées pour Épurateurs. Lisses. Machines pour couper le papier en feuilles. Feutres et Toiles. Soupapes à coulisse pour l'eau et le gaz.

Constructores de Maquinas de vapor y Calderas. Turbines. Maquinas para la fabrica de papel. Lexiadoras esfericas rodantes. Prensas hidraulicas. Pilas de cilindro. Laminas y Planchas de acero y Maquinas para acepillar Laminas y Planchas. Apuradores. Planchas de bronze perforadas para Apuradores. Lizos. Maquinas para cortar en hojas el papel. Feltros y Telas. Valvulas resbaladizas para agua y gas.



Machine Brevetée pour Couper les Chiffons, Cordages, etc.
Maquina Patente para cortar Trapos, Cordages, &c.

Cette machine est construite dans le but d'obtenir une plus grande uniformité dans la grandeur des pièces; et d'éviter le déchet qui est occasionné par les coups violents et déchirants qui ont lieu dans les machines actuelles.

L'action de couper se fait par le moyen d'un couteau placé dans le sens transversal de la machine; à ce couteau deux autres sont attachés à angle droit; tous trois descendent sur une plaque et coupent la substance présentée, en long et en travers en même temps, tranchant nettement les chiffons sans choc, et conséquemment sans aucun déchet des fibres. En effet, la manière de couper est analogue, en principe, à celle si bien connue dans les machines employées pour couper et rogner le papier en rames, et le tranchant des lames résiste aussi bien dans l'un comme dans l'autre cas. On peut faire couper avec une de ces machines environ 5,000 à 6,000 kilogrammes de chiffons ou de cordages par jour de douze heures.

Esta maquina se ha construido con el objeto de obtener mas uniformidad en el tamaño de los pedazos; y de evitar la merma causada por los golpes violentos y desgarrantes que tienen lugar en las maquinas actuales.

La accion de cortar se hace por medio de un cuchillo puesto en la direccion transversal de la maquina; á este cuchillo estan atacados dos otros en angulo recto; todos tres descenden sobre una plancha y cortan la sustancia, que se presente, á lo largo y de través al mismo tiempo, trinchando limpiamente los trapos sin choque, y por consiguiente sin merma ninguna de las fibras. En verdad, la manera de cortar es analoga, en su principio, á la que se conoce perfectamente en las maquinas empleadas para cortar y cercenar el papel en resmas, y el corte de las hojas resiste igualmente bien en los dos casos. Si puede cortar con una de estas maquinas de 5,000 á 6,000 kilograma de trapos ó cordage por día de doce horas, oco mas ó menos.

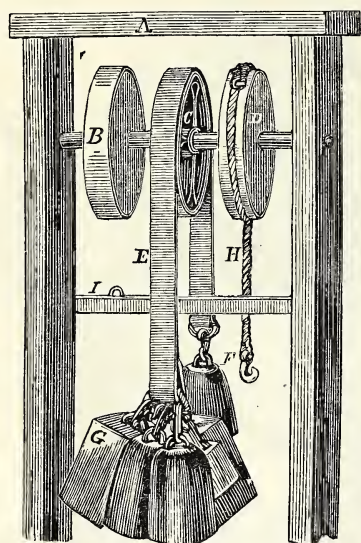
NORTH BRITISH RUBBER COMPANY (LIMITED), *Castle Mills, Edinburgh, Scotland.**London Warehouse, 4 Cannon-street, E.C.; Manchester Warehouse, 8 Spring-gardens.*

Manufacturers of Vulcanised Indiarubber for Machine Belting, Hose, and Mechanical Appliances; also for Overshoes, Clothing, Air Cushions, Elastic Webbing, Vulcanite, &c. &c.

Holders of Prize Medal from London Exhibition of 1862.

PATENT MACHINE BELTING.

Their patent machine driving-belts are manufactured from the best American cotton canvas, cemented in layers by vulcanised india-



rubber, and covered by a specially prepared compound of rubber, whereby a smooth even

surface is obtained. They are very durable, unaffected by damp or exposure, and unequalled for main or heavy driving belts. They can be made of any width and thickness, and therefore of any strength; and for large belts are *very much cheaper* than either leather or gutta percha. The tensile strength is very great; a single strip of the canvas one inch wide will bear a weight of 120 lbs., or 54 kilos. The resistance to slip round the pulley is very much greater than leather, as may be seen from the following results of experiments, made to determine this, the *most valuable* property of a driving belt. The high percentage of useful effect thus obtained is due to the *compressible* elasticity of the surface, a quality not attainable by any other material suitable for this purpose.

These belts, as furnished to Her Majesty's Commissioners, may be seen transmitting power to the main shaft in Class 52, British section.

EXPERIMENTS.

In the accompanying diagram, A represents a frame, carrying a shaft, with three pulleys, B, C, D. The pulleys are fast on the shaft, and the latter may be fast, or free to revolve, as the experimenter may choose. The pulley B was covered with rubber, C polished iron, such as is ordinarily used for transmitting motion by straps, and D covered with leather. The belts to be tested for slip were successively hung over these pulleys, and made to carry, in the first series of experiments, a tension weight at each end of 32 lbs. Weights, G, were then added until the belts began to slip. The results were as follows:—

	Leather Belt slipped at <i>La Courroie de Cuir glissa à Lederriemen schlüpfte mit</i>	Rubber Belt slipped at <i>La Courroie de Caoutchouc glissa à Caoutchouc-Riemen schlüpfte mit</i>	Ratios of surplus weights required to produce slip <i>Proportions de poids de surplus nécessaires pour produire le glissement Verhältniss von Mehrgewicht hierzu erforderlich</i>
	lbs.	lbs.	Leather Cuir Leder Rubber Caoutchouc Caoutchouc
Experiment No. 1 on polished iron pulley— <i>Expérience No. 1 sur poulie en fer poli—Versuch No. 1 mit Kolben von polirtem Eisen*</i>	48	90	1·000 @ 3·625
Experiment No. 2 on belting 2½ inches wide on polished iron pulley, 12 inches diameter, tension weights 30 lbs. each— <i>Expérience No. 2 sur courroie de 2½ pouces de large (6c. 35) sur poulie de fer poli, de 12 pouces (30c. 48) de diamètre, poids de tension, 30 livres (13 kilos. 620) chaque—Versuch No. 2 mit Riemen 2½ Zoll breit auf Kolben von polirtem Eisen, 12 Zoll Durchmesser, Dehnungsgewicht je 30 Pfund</i>	47	79	1·000 @ 2·882

* The results with covered pulleys were also much higher for rubber than for leather belts.

The superiority of rubber belting is thus clearly shown. The results show that the resistance to slip is about *three times* greater than that of leather belting.

Résultats qui prouvent clairement la supériorité des courroies en caoutchouc. Ils démontrent que la résistance contre le glissement est environ trois fois plus grande que celle des courroies en cuir.

Die Ueberlegenheit von Caoutchouc ist demnach zur Genüge bewiesen. Die Resultate zeigen den Widerstand des Schlüpfens ungefähr *drei Mal* grösser als jenen der Lederriemen.

NORTH BRITISH RUBBER COMPANY (LIMITED), Castle Mills, Edinburgh, Scotland.

London Warehouse, 4 Cannon-street, E.C.; Manchester Warehouse, 8 Spring-gardens.

Fabricants de Caoutchouc Vulcanisé pour Courroies de Machines, Tuyaux, et Applications Mécaniques; ainsi que pour Claques, Vêtements, Coussins à Air, Tissus Élastiques, Vulcanite, etc. etc.

Fabricanten von vulcanisirtem Caoutchouc für Maschinenriemen, mechanische Apparate; ebenso für Ueberschuhe, Kleider, Luftkissen, elastische Gewebe, Vulcanite etc. etc.

Ont obtenu une Médaille à l'Exposition de Londres de 1862.

Inhaber der Preismedaille der Londoner Ausstellung von 1862.

COURROIES POUR MACHINES, BREVETÉES.

Leurs Courroies de Machines, brevetées, sont fabriquées avec la meilleure toile de coton d'Amérique, cimentée, en couches avec du caoutchouc vulcanisé, et recouverte d'une composition de caoutchouc préparée spécialement pour cet usage, au moyen de quoi on obtient une surface lisse et égale. Elles sont très-durables, nullement affectées par l'humidité ou l'exposition à l'air, et sans égales pour les courroies principales ou ayant à faire mouvoir des poids lourds. Elles peuvent se fabriquer de toutes largeurs et épaisseurs, et par conséquent de toutes forces, et sont, pour les larges, *considérablement* meilleur marché que celles en cuir ou en gutta-percha. Leur force de tension est fort grande; une simple bande de cette toile de un pouce—2 c. 54—de large supportera un poids de 120 livres, ou 54 kilos. La résistance contre le glissement autour de la poulie est beaucoup plus grande que celle du cuir, ainsi qu'on le verra d'après les résultats suivants d'expériences faites pour déterminer le degré de cette qualité; *la plus importante* d'une courroie motrice. La proportion très-élevée d'effet utile ainsi obtenue est due à l'élasticité compressible de la surface, qualité qui ne peut être obtenue avec nulle autre substance convenant pour cet usage.

Ces courroies, telles qu'elles ont été fournies aux Commissaires de Sa Majesté, peuvent être vues fonctionnant dans la Classe 52 de la Section Anglaise, où elles transmettent la puissance motrice à l'arbre principal.

EXPÉRIENCES.

Dans le diagramme ci-contre, A représente une charpente supportant un arbre avec trois poulies B, C, D. Les poulies sont fixes sur l'arbre, qui peut être également fixe, ou libre de tourner, au choix de l'expérimentateur. La poulie B était recouverte de caoutchouc, C en fer poli, tel qu'on se sert ordinairement pour la transmission du mouvement par des courroies, et D recouverte de cuir. Les courroies qui devaient être éprouvées pour le glissement furent successivement suspendues sur ces poulies, ayant, dans la première série d'expériences, un poids de tension à chaque extrémité de 32 livres—14 kilos. 528. Des poids furent alors successivement ajoutés jusqu'à ce que les courroies commençassent à glisser. Les résultats sont donnés page 186.

PATENT MASCHINEN-TREIBRIEMEN.

Selbe sind von bestem Amerikanischen Baumwoll-Canvas, mit Lagen von vulcanisirtem Caoutchouc bedeckt und ausserdem mit einer besonders Auflösung aus Caoutchouc vollendet, was eine gleichmässige und ebene Oberfläche sichert. Sie sind dauerhaft, der Feuchtigkeit nicht ausgesetzt und besser als irgend andere Haupt- oder Bewegungs-Riemen. Man kann sie von jeder Breite und Dicke, deshalb jeder Stärke, herstellen; und lange derartige Riemen sind *bedeutend wohlfeiler* als jene von Leder oder Guttapercha. Die dehnbare Stärke ist bedeutend; ein einfacher Streifen von Canvas, 1 Zoll breit, trägt ein Gewicht von 120 Pfund oder 54 Kilos. Der Widerstand bei Bewegung um den Kloben ist stärker als der Lederriemen, was aus den folgenden gemachten Versuchen hervorgeht, und dies ist die *am meisten zu schätzende* Eigenschaft eines Radriemens. Das grosse Verhältniss der Dehnungsfähigkeit ist der *zusammendrückbaren* Elasticität der Oberfläche zuzuschreiben, eine Eigenschaft, von keinem andern verwendbaren Materiale besessen.

Die Riemen, welche Ihrer Majestäts Commissaire geliefert, sind verwendet, um den Hauptschaft in Klasse 52 der Britischen Abtheilung in Gang zu setzen.

EXPERIMENTE.

In der nebenstehenden Zeichnung stellt A das Gerüst, mit Schaft, und drei Kolben, B, C, D, tragend, vor. Die Kolben sind an dem Letztern befestigt, und dieser selbst kann entweder fest oder drehbar nach Wahl des Versuchsanstellers sein. Der Kolben B war mit Caoutchouc, C mit polirtem Eisen, als gewöhnlich zum Gange von Riemen, und jener D mit Leder bedeckt. Die zu prüfenden Riemen wurden der Reihenfolge nach über diese Kolben gehängt und hatten während der ersten Serie der Versuche ein Dehngewicht von je 32 Pfund zu tragen, welches alsdann vermehrt wurde, bis die Riemen zu schlüpfen angingen. Die Resultate waren, wie auf Seite 186 angegeben.

GALLOWAY, W. & J., & SONS, *Knott Mill Iron Works, Manchester.*

Three Patent 'Galloway' Boilers, 46 Horse Power each, and
Pair of 50-Horse Horizontal Engines, Cylinders 26 in. diameter, 3 ft. stroke.

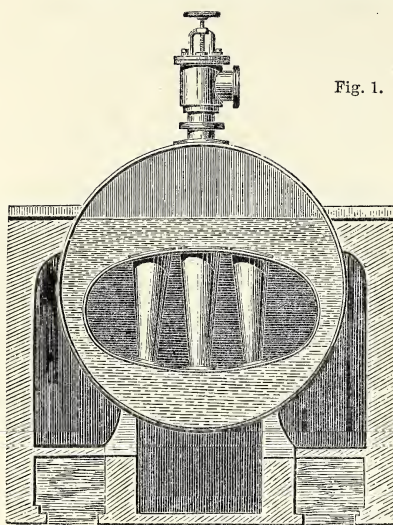


Fig. 1.

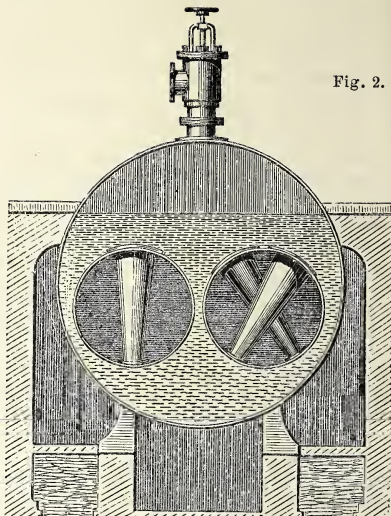


Fig. 2.

The Three Boilers here exhibited (constructed as per section fig. 1), have been supplied to the Commissioners of the British Executive, for the purpose of generating steam required for driving the engines in the English Department, and may be seen at work in the Boiler House adjoining, together with a *model* showing the internal arrangement.

The chief feature of these well-known Boilers is in the arrangement of the back flue, the two furnaces being formed into one (as per fig. 1), in which a number of Vertical Cone Tubes are placed; thereby giving strength to the flue, and greater surface for the flame to impinge against: by this arrangement the generating power of the boiler is considerably increased, and the consumption of smoke effected. A thorough circulation of water is also promoted.

The Patent Tubes are now extensively used for introduction into *existing Boilers*, either single or double flued, and with the most beneficial results (as per fig. 2). They not only add considerably to the steam-producing power of the Boilers, but strengthen the flue so effectually as to render hooping with tee or angle iron unnecessary.

Upwards of 35,000 of these tubes are now at work throughout the United Kingdom.

Price of Patent Cone Tubes (for use on the Continent).
If not exceeding 3 ft. long,45s. each nett.
Delivered free in London, Liverpool or Hull.

Les Trois Chaudières exposées (construites d'après la section fig. 1) ont été fournies à la

Commission Anglaise, pour produire la vapeur nécessaire à la mise en mouvement des machines dans la Section Anglaise de l'Exposition, et peuvent se voir fonctionnant dans le local *ad hoc* contigu, ainsi qu'un *modèle*, qui en montre la disposition intérieure.

Le caractère distinctif de ces Chaudières bien connues consiste dans la disposition du conduit de derrière, les deux fourneaux étant réunis en un seul (ainsi que le montre la fig. 1), dans lequel est placé un certain nombre de Tubes Coniques Verticaux; disposition qui donne plus de force de résistance au conduit, et offre une plus grande surface d'action à la flamme; en outre la puissance de production de la chaudière se trouve considérablement accrue, et la fumée se consume d'elle-même.

La circulation de l'eau d'une façon complète résulte aussi de cet arrangement.

Les Tubes Coniques, Brevetés, sont maintenant largement employés afin de les appliquer à *celles existant déjà*, qu'elles soient à un ou à deux conduits, et toujours avec les résultats les plus avantageux (voyez fig. 2). Non seulement ils accroissent considérablement la puissance de production de vapeur des chaudières, mais en outre ils renforcent le conduit d'une manière si efficace qu'il devient inutile de le relier avec du fer d'angle ou en T.

Plus de 35,000 de ces tubes fonctionnent déjà dans le Royaume-Uni.

Prix des Tubes Coniques, Brevetés (pour usage sur le Continent).
Nedépassant pas 3 pieds (0m. 91c.) de long, 54 fr. chaque, net. Délivré sans frais à Londres, Liverpool ou Hull.

APPLEBY BROTHERS, *Engineers, Contractors to Her Majesty's Government, &c.*

Emerson-street, Southwark, London, S.E.

Makers of Steam Cranes, Hoisting, Pumping, and Contractors' Machinery, &c.

Constructeurs de Grues à Vapeur, Machines à Hisser, à Pomper, Machines pour Entrepreneurs, etc.

Steam and hand crane, lifts 6 tons (6,000 kilo.), turns round in either direction without stopping or reversing the engines; travels and alters radius of jib, all by steam, or works in all motions by hand. Selected by the British Commission for unloading and placing the heavy packages, and for removing them at the close of the Exhibition; used for that purpose from February 1867.

Price, as exhibited, 425*l*.

Donkey engine, extra 10*l*. 5*s*.

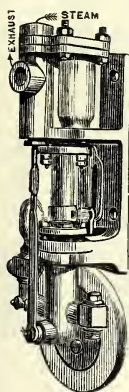
Crane to lift 3 tons, and turn by steam, 250*l*.

" " 2 tons, and turn by steam, 200*l*.

Self-acting skip for ballast, minerals, &c. 9*l*. 5*s*.

STEAM PUMPS OR DONKEY ENGINES.

These Pumps are cheap, durable, and so simple that an unskilled workman can use them. The working parts and valves are of hard gun-metal and hardened cast-steel. They may be fixed vertically or horizontally, and used for feeding boilers, as fire-engines, or for lifting and forcing hot liquors. Every pump is tested in steam before being sent out.



POMPES A VAPEUR OU POMPES ALIMENTAIRES.

Ces Pompes sont bon marché, durables, et d'une construction tellement simple qu'un ouvrier même ignorant peut s'en servir. Les pièces fonctionnantes et les soupapes sont en bronze et en acier fondu. On peut les monter verticalement ou horizontalement et s'en servir également comme pompes d'alimentation, pompes à incendie ou pour pomper et refouler les liquides de toutes espèces, même les liquides chauds. Chaque pompe est éprouvée à vapeur avant de

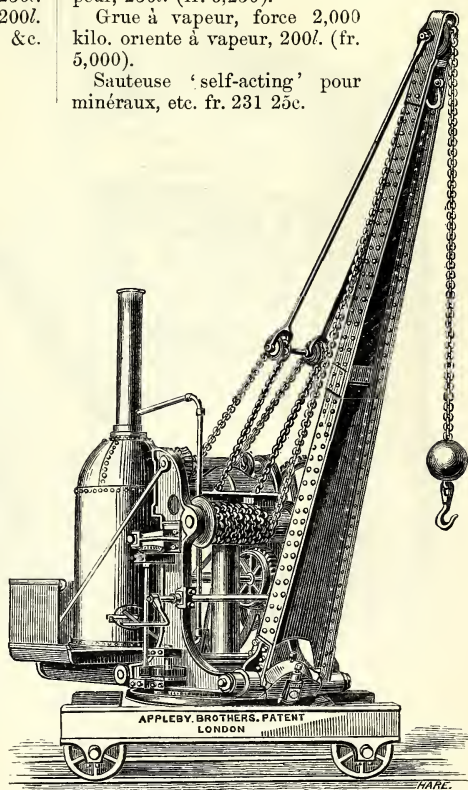
Grue à vapeur ou à la main, force 6,000 kilo., oriente à l'un côté ou à l'autre sans arrêter ou changer la course de pistons, marche, et lève ou baisse la flèche; tous les mouvements se font à vapeur ou à la main. Cette machine a été choisie par la Commission Britannique pour faire le service du déchargement et du placement des pièces lourdes à l'Exposition de 1867, et a fonctionné depuis février dernier.

Prix 425*l*. (fr. 10,620).

Grue à vapeur, force 3,000 kilo., oriente à vapeur, 250*l*. (fr. 6,250).

Grue à vapeur, force 2,000 kilo. oriente à vapeur, 200*l*. (fr. 5,000).

Sauteuse 'self-acting' pour minéraux, etc. fr. 231 25*c*.



No.	1	2	3	4	5	6	7	8	9
Diameter of plunger <i>Diam. de piston plongeur</i>	1½ in.	2 in.	2¼ in.	2½ in.	2¾ in.	3 in.	3¼ in.	3½ in.	4 in.
Gallons per hour	230	400	680	850	1,200	1,500	2,100	2,500	3,800
Litres par heure	1,045	1,815	3,080	3,860	5,450	6,810	9,540	11,350	17,260
Supply H.P. boiler <i>Alimente une chaudière de C.V.</i>	15	25	40	50	80	95	130	150	230
Price	£10-5	£12-10	£15	£18	£21	£24	£28	£30	£35
Prix	fr. 257	fr. 313	fr. 375	fr. 450	fr. 525	fr. 600	fr. 700	fr. 750	fr. 875

TANGYE BROTHERS, *Birmingham.*

Sole Makers of WESTON'S Patent Differential Pulley Blocks.

Prize Medal awarded, International Exhibition, 1862.

Also Makers of TANGYE'S New Patent Hydraulic Bear Punch, Lifting Jacks, Shears, &c.

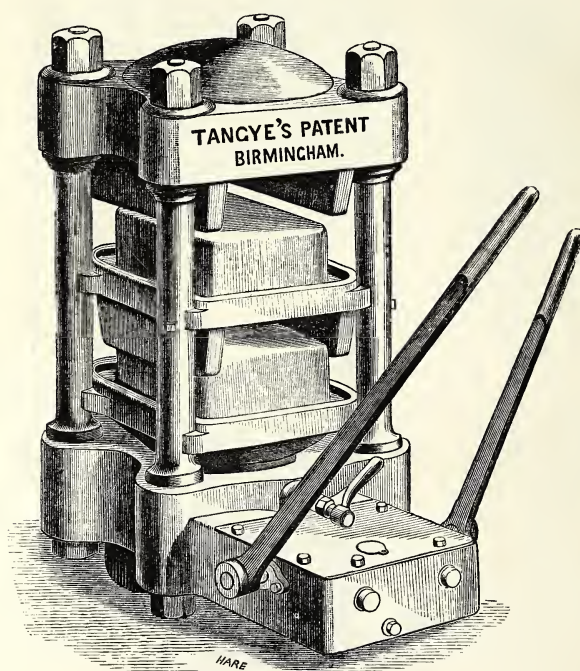
London House, TANGYE BROS. & HOLMAN, 10 Laurence Pountney-lane, E.C.

Seuls Fabricants des Poulies Différentielles Brevetées de WESTON.

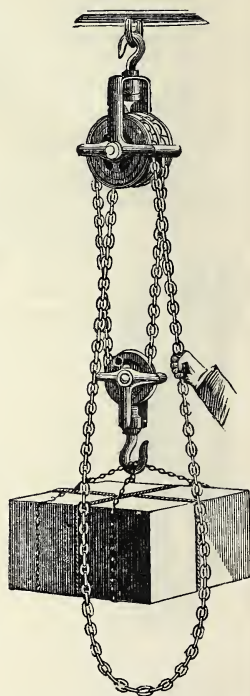
Médaille à l'Exposition Internationale à Londres, 1862.

Fabricants de Poinçonneuses Hydrauliques, Leviers, Cisailles Hydrauliques, etc.

Maison à Londres, TANGYE BROS. & HOLMAN, 10 Laurence Pountney-lane, E.C.



Hydraulic Oil Presses.



Weston's Patent Differential Block.

Also agents for Mr. T. A. Weston, of Buffalo, New York, and Birmingham, England; exhibiting in Group VI. Class 53.

Seuls agents pour la France, Nathaniel Mills & Co., Birmingham. Représentés par Ph. Roux, 132 Rue Turenne, Paris; et à Berlin, Ernst Schneider, Schützenstrasse 10; Hambourg, H. J. N. Kroeger, Bohnenstrasse 13; Copenhague, E. Jacobson, St. Kongensgade; Stockholm, Krook & Co. Exporteurs en général aux pays transatlantiques.

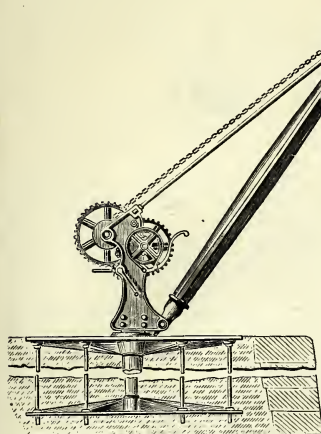
TANGYE BROTHERS, *Birmingham.*

Makers of Cranes, Crabs, Lifting Jacks, Rope Blocks, Oil, Cotton, Wool, Hay, and Hide Presses, Hydraulic and Screw.

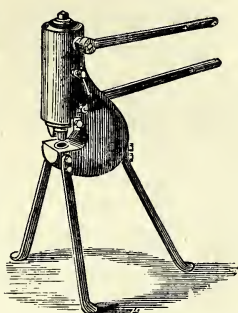
London House, TANGYE BROS. & HOLMAN, 10 Laurence Pountney-lane, E.C.

Fabricants de Grues, Treuils, Cries, Levier et Presses Hydrauliques pour l'Huile, le Foin la Peau, etc.

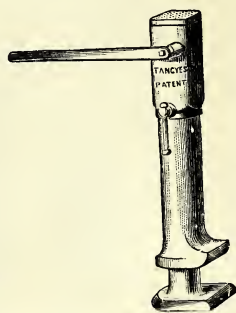
Maison à Londres, TANGYE BROS. & HOLMAN, 10 Laurence Pountney-lane, E.C.



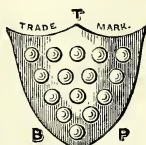
Wharf Crane.



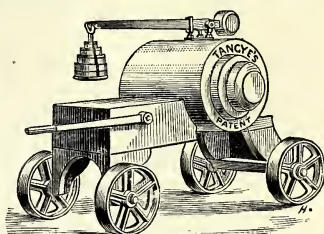
Hydraulic Punching Bear.



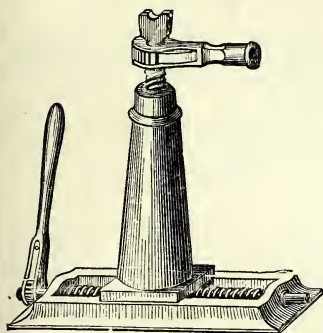
Hydraulic Lifting Jack.



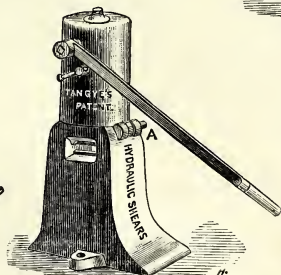
Trade Mark.



Hydraulic Girder Tester.



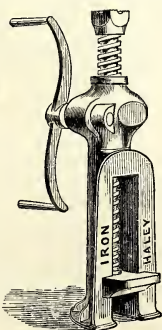
Traversing Screw Jack.



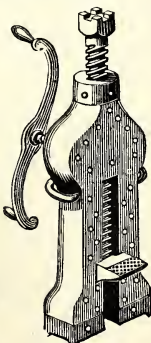
Hydraulic Shears.

Alleinige Agenten für Frankreich, Nathaniel Mills & Co., in Birmingham. Vertreten durch Ph. Roux, 132 Rue Turenne, in Paris; Berlin, durch Ernst Schneider, Schützenstrasse 10; Hamburg, H. J. N. Kroeger, Bohnenstrasse 13; Copenhagen, E. Jacobson, St. Kongensgade; Stockholm, Krook & Co.

Commissions-Export-Geschäft in Eisen und Metallwaaren, Galanteriewaaren etc. etc. nach überseeischen Ländern.

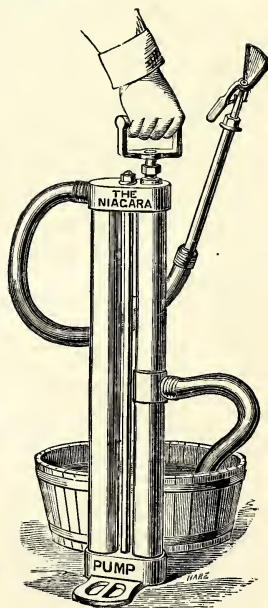


Iron Case.



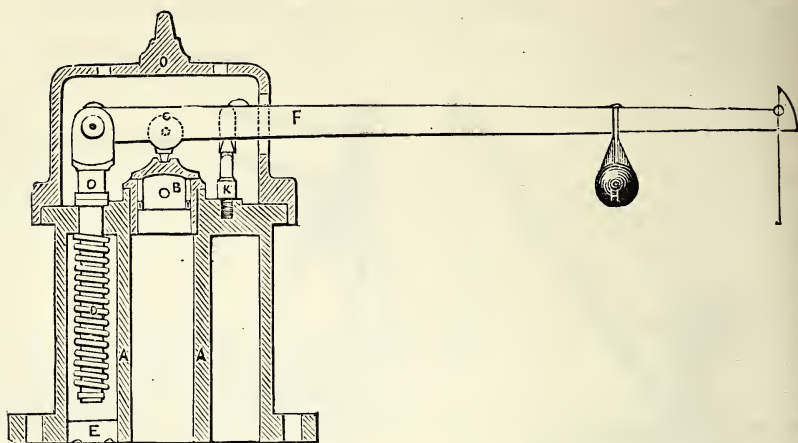
Wood Case.

Hale Screw Jack.



Garden Force Pump.

SWANN, J. R., 21 Leith-walk, Edinburgh, Scotland.



SWANN'S PATENT SAFETY-VALVE.

(Secured by Royal Letters Patent in 1866: Great Britain, France, Belgium, and United States.)

This valve is the ordinary steam valve, until *undue weight* is applied, when it *becomes* a safety valve.

Firemen are unable to tamper with this valve, either with steam *off* or *on*.

Indicates deficiency of water in boiler.

The insecurity to life and destruction to property, arising from over-pressure or deficiency of water, are *completely guarded against*.

No steam-boiler should be without it.

The valves are tested according to pressure wanted before being sent out.

When ordering valve, please give diameter of boiler, and stipulate pressure of steam.

Can be seen in operation at 21 Leith-walk, Edinburgh.

Descriptive and priced circular on application.

J. R. SWANN.

'Constructed upon a good principle, and addition to weight upon the lever will *actually* relieve the pressure.'—*Mechanics' Magazine*, Nov. 1866.

'Only requires to be known to be *universally* adopted.'—*Engineer*, Nov. 1866.

'Claims a decided advantage over the valves at present in use.'—*English Mechanic*, Nov. 1866.

Cette soupape fait l'office de la soupape à vapeur ordinaire jusqu'à ce qu'un *poids indu* soit appliqué; alors elle se *transforme* en soupape de sûreté.

Que la chaudière soit *en vapeur* ou *non*, les chauffeurs ne peuvent déranger en rien le mécanisme de cette soupape.

Elle indique l'insuffisance d'eau dans la chaudière.

Elle est une sauvegarde complète contre les dangers pour la vie et la destruction de propriété qui peuvent résulter d'un excès de pression, ou d'insuffisance d'eau.

Nulle chaudière à vapeur ne devrait s'en passer.

Les soupapes sont éprouvées selon la pression requise avant d'être expédiées.

On est prié de donner, en faisant la commande, le diamètre de la chaudière et de préciser la pression de vapeur.

Cette soupape peut être vue fonctionnant à 21 Leith-walk, Edimbourg.

Circulaire contenant description et prix sur demande.

J. R. SWANN.

'Construite d'après un bon principe, et l'addition faite au poids sur le levier allégera *positivement* la pression.'—*Mechanics' Magazine*, Nov. 1866.

'N'a besoin que d'être connue pour être *universellement* adoptée.'—*Engineer*, Nov. 1866.

'Revendique le mérite d'offrir un avantage décidé sur les soupapes à présent en usage.'—*English Mechanic*, Nov. 1866.

Also in operation, Boiler House, British Department, Exhibition, Paris.

CLASS LIII.

BOULTON, SAMUEL BAGSTER,

Of the Firm of BURT, BOULTON, & HAYWOOD, 39A King William-street, London, E.C., and
54 Rue Caumartin, Paris.

Patent Improved Apparatus for Preparing Timber against Decay.

Appareil Perfectionné, Breveté, pour la Conservation des Bois.

Patentirter verbesserter Apparat, um Holz vor Fäulniß zu schützen.

Apparato Perfezionato Patentato per la Conservazione di Legname.

By means of this apparatus, timber can be prepared by vacuum and pressure in iron cylinders even where the antiseptic agent employed (such as sulphate of copper, corrosive sublimate, &c.) is of such a nature as would destroy the iron cylinder, if used in the ordinary manner. The pressure is applied by compressed air, and is more speedily and more perfectly obtained than by the methods hitherto in use. MESSRS. BURT, BOULTON, & HAYWOOD, have for many years past devoted their attention to the preservation of timber by various processes; they supply and deliver upon the ground all kinds of sleepers and timber, for railways, public works, and general constructions, and undertake to erect complete sets of timber-preserving apparatus, and to work them by contract in any part of Europe.

Durch dessen Anwendung kann Holz in eisernen Cylindern durch Entleerung und Druck, wo selbst die antiseptischen verwendeten Mittel (als blauer Vitriol, ätzende Sublimate u. s. w.), wenn in anderen Cylindern von Eisen, dieselben zerstören würden, so hergestellt und geschützt werden. Der Druck wird durch comprimirte Luft hervorgebracht und ist schneller und nachdrücklicher, als durch die bisher befolgte Verfahrungsweisen. Die Herren BURT, BOULTON & HAYWOOD haben seit einer Reihe von Jahren ihre Aufmerksamkeit der Bewahrung von Holz durch verschiedene Processe zugewendet; sie liefern an die aufgegebene Oertlichkeit alle Sorten Schwellen und Bauholz für Eisenbahnen, öffentliche und andere Bauten und vollständige Apparate zur Bewahrung von Holz und überwachen deren Bearbeitung bei Contract in ganz Europa.

Au moyen de cet appareil les bois de charpente peuvent être préparés par la production du vide et la pression, dans des cylindres en fer, même alors que l'agent antiseptique employé (tel que sulphate de cuivre, sublimé corrosif, etc.) est de nature à détruire le cylindre si on s'en servait de la manière habituelle. La pression s'exerce au moyen de l'air comprimé, et s'obtient plus rapidement et d'une façon plus parfaite que par la méthode en usage jusqu'alors. MM. BURT, BOULTON et HAYWOOD ont, depuis de nombreuses années, consacré leur attention à la conservation des bois de construction au moyen de procédés divers; ils fournissent, rendu sur le terrain, toutes sortes de traverses et bois de charpente pour chemins de fer, travaux publics, et constructions en général et se chargent de l'érection de systèmes complets d'appareils à conserver les bois ainsi que de les faire fonctionner, par entreprise, en toute partie de l'Europe.

Per mezzo di questo apparato il legname può essere preparato a vacuo e pressione in cilindri di ferro, anche quando l'antisettico usato (come il solfato di rame, il sublimato corrosivo, ecc.) sia di tal natura che distruggerebbe il cilindro di ferro se fosse adoperato nel modo ordinario. La pressione è applicata ad aria compressa, e si ottiene più speditamente e più perfettamente che cogli altri metodi fin qui in uso. I Sigr. BURT, BOULTON e HAYWOOD hanno già da molti anni dedicata la loro attenzione alla conservazione dei legnami con vari processi; essi forniscono e consegnano a destinazione ogni specie di traversine e legname per ferrovie, lavori pubblici, e costruzioni in generale, e intraprendono l'erezione di un sistema completo di apparati per la conservazione dei legnami, e di tenerli in attività, previo contratto, in qualunque parte di Europa.

MERRYWEATHER & SONS *Long Acre, w.c., and Lambeth, s., London,*

Manufacturers of—

Steam land, floating and fixed fire-engines of various sizes.

Hand-power fire-engines of all descriptions, of various sizes.

Copper riveted leather, woven canvas, and india-rubber hoses, suction-pipes and buckets.

Fire-escapes, hose reels, helmets, fire-cocks, and everything connected with fire-extinguishing, *all suitable for any climate.*

The following FIRST PRIZES have been awarded to MERRYWEATHER & SONS, for THE BEST Fire Engines:—

The First Grand Prize (250l.) for the best steam fire engine—Crystal Palace competition, 1863; the Netherlands Prize Medal and Money Prize, 1864; the First Grand Prize (500 thalers) for the best steam fire engine—Colognè competition, 1865; First Prize Medal, Dublin Exhibition, 1865; First Prize Medal, Great Exhibition, 1851; First Prize Medal, Paris Exhibition, 1855; First Prize Medal, International Exhibition, 1862.

MERRYWEATHER & SONS' Improved 'Patent

Fabricants de—

Pompes à incendies à vapeur de terre, flottantes et fixes, de diverses dimensions.

Pompes à incendies fonctionnant à la main, de toutes sortes et de diverses dimensions.

Tuyaux de refoulement, et d'aspiration, et seaux, en cuir rivé à rivets de cuivre, en toile, et en caoutchouc.

Appareils de sauvetage, dévidoirs à tuyaux, casques, robinets, et tous articles relatifs à l'extinction des incendies, *tous convenant pour tous climats.*

LES PREMIERS PRIX suivants ont été décernés aux MM. MERRYWEATHER et FILS, pour LES MEILLEURES Pompes à incendies:—

Le Premier Grand Prix (250l.) pour la meilleure pompe à incendie à vapeur—concours de Palais de Cristal, 1863; la Médaille, et le Prix en argent, de la Hollande, 1864; le Premier Grand Prix (500 thalers) pour la meilleure pompe à incendie à vapeur—concours de Cologne, 1865; Médaille de Première Classe, Exposition de Dublin, 1865; Médaille de Première Classe, Grande Exposition, 1851; Médaille de Première Classe, Exposition de Paris, 1855; Médaille de Première Classe, Exposition Internationale, 1862.

Pompes à Incendies à Vapeur, 'ayant remporté le Premier Grand Prix,' brevetées, 'perfectionnées,' de MERRYWEATHER et FILS, sont largement employées par:

Le Gouvernement Anglais.

Le Gouvernement Français.

Le Gouvernement Russe.

Le Gouvernement Belge.

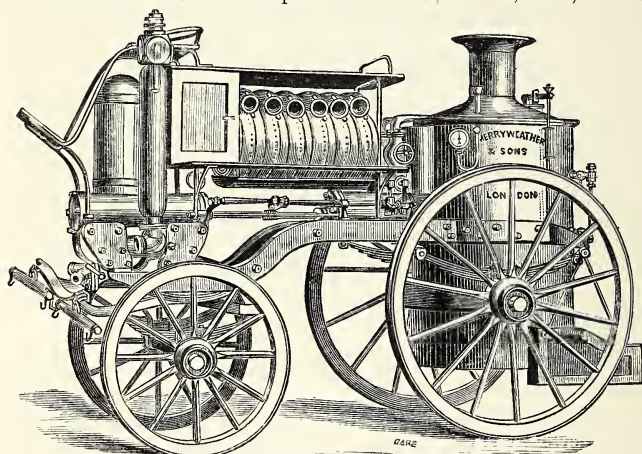
Le Gouvernement Espagnol.

Le Gouvernement Hollandais.

La Compagnie Métropolitaine de Pompiers de Londres, celle de Liverpool, et plusieurs de la province; et nombres de villes d'Allemagne, de Belgique, de Hollande, des Indes occidentales, de l'Amérique du Sud, l'Île du Prince Édouard, Manille, des Chemins de Fer, des Compagnies de Dock, etc. etc.

Ces machines produiront de la vapeur avec de l'eau froide, de façon à atteindre le degré de pression nécessaire pour fonctionner en huit minutes à partir de l'instant où le feu aura été allumé—sont munies de larges pompes à effet direct et double, de chaudières très-simples et très-durables, etc.

De six dimensions, poids et prix divers.



First Grand Prize' Steam Fire Engines are extensively used by—

The British Government.
The French Government.
The Russian Government.
The Belgian Government.
The Spanish Government.
The Dutch Government.

By the Metropolitan (London), Liverpool, and the several Provincial Fire Brigades, and Towns in Germany, Belgium, Holland, West Indies, South America, Prince Edward Island, Manilla, Railways, Dock Companies, &c. &c.

These fire-engines will raise steam from cold water to a working pressure in eight minutes from the time of lighting the fire—have large direct and double acting pumps, most simple and durable boilers, &c.

Of six various sizes, weights, and prices.

MERRYWEATHER & SONS, *Long Acre, w.c., and Lambeth, s., London,*

Fabricanten von

Dampf-Land-, Fluss- und stabilen Feuerspritzen von allen Grössen;

Handfeuerspritzen aller Arten, von verschiedenen Grössen;

Wasserschläuchen, Zugröhren und Feuer-eimern von Leder, gewebtem Segeltuch und Guttapercha, mit Kupfer vernietet;

Feuerleitern, Schlauchrollen, Feuerhelmen, Feuerhähnen und allen in Feuerlöschungen gebrauchten Gegenständen, für jedes *Clima sich eignend.*

Die folgenden ERSTEN PREISE sind MERRYWEATHER & SÖHNEN für die BESTEN Feuerspritzen zuerkannt worden:—

Der erste grosse Preis (250l.) für die beste Dampfweatherspritze auf der Preisbewerbung im Crystallpalaste im Jahre 1863; die Niederländische Preismedaille und Geldpreis in 1864; der erste grosse Preis (500 Thaler) für die beste Dampfweatherspritze, auf der Preisbewerbung zu Cöln in 1865; erste Preismedaille auf der Dubliner Ausstellung in 1865; erste Preismedaille auf der grossen Ausstellung in 1851; erste Preismedaille auf

der Pariser Ausstellung in 1855; erste Preismedaille auf der internationalen Ausstellung in 1862.

Die verbesserten 'patentirten Dampfweatherspritzen ersten Preises' von MERRYWEATHER & SÖHNE werden ausgebreitet angewandt von:—

Der Britischen Regierung;

der Französischen Regierung;

der Russischen Regierung;

der Belgischen Regierung;

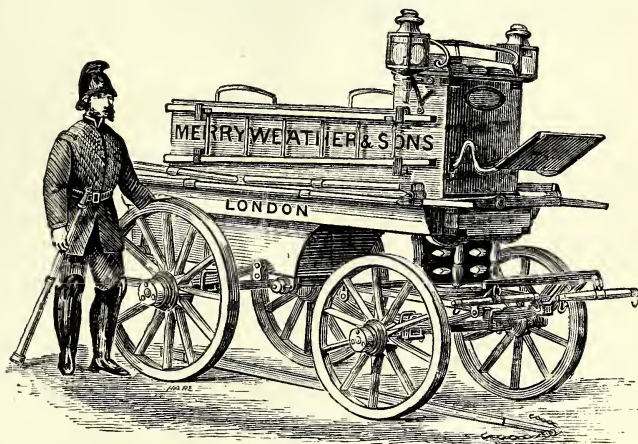
der Spanischen Regierung;

der Niederländischen Regierung;

den Feuerbrigaden von London, Liverpool und von Provinzstädten, und von Städten in Deutschland, Belgium, Holland, Westindien, Südamerika, Prinz Edward-Insel, Manilla, Eisenbahnen, Docks-Compagnien u. s. w.

Diese Dampfweatherspritzen erzeugen Dampf von kaltem Wasser zu einer Arbeitsfähigkeit in acht Minuten von der Zeit, dass das Feuer angemacht wurde, haben grosse direct und doppelt wirkende Pumpen, die einfachsten und dauerhaftesten Dampfessel u. s. w.

Von sechs verschiedenen Grössen, Gewichten und Preisen.



MERRYWEATHER & SONS' Improved 'First Prize' Brigade Fire Engines, of different sizes, very extensively used by the Metropolitan (London), Liverpool, Dublin, Provincial, and Volunteer Fire Brigades; the British, and several foreign and colonial governments, Insurance Companies, Railways, Docks, Factories, Mansions, Plantations, &c.

Illustrated catalogues of all kinds of fire-engines for various purposes, &c., free on application.

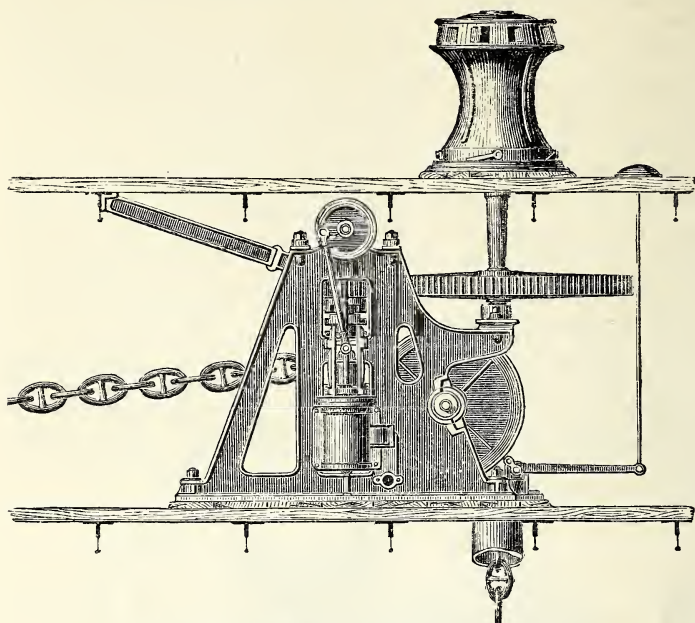
Pompes à Incendies 'ayant remporté le Premier Prix,' perfectionnée, de MERRYWEATHER & FILS, de différentes dimensions, et largement employée par les Compagnies de Pompiers de Londres (Métropolitaine), Liverpool, Dublin, et de province; ainsi que par le Gouvernement Anglais, plusieurs Gouvernements étrangers et coloniaux, les Compagnies d'Assurances, et pour Chemins de Fer, Docks, Manufactures, Châteaux et Plantations.

Catalogues illustrés de Pompes à Incendies de toutes espèces, etc., gratis sur demande.

Die verbesserten Brigade-Feuerspritzen 'ersten Preises' von MERRYWEATHER & SÖHNE, von verschiedenen Grössen, werden ausgebreitet angewandt von den Londoner, Liverpooler, Dubliner, provinziellen und Volontair-Feuerbrigaden; den Britischen und verschiedenen andern fremden und Colonial-Regierungen, von Versicherungs-Gesellschaften, Eisenbahnen, Docks, Fabriken, Residenzen, Pflanzungen u. s. w.

Illustrirte Cataloge aller Arten Feuerspritzen für verschiedene Zwecke u. s. w. und gratis auf gefällige Anfrage zu haben.

PAUL, MATTHEW, & CO., *Levenford Works, Dumbarton, Scotland.*



Patent Friction Windlass—Guindeau à Frottement, breveté.

This windlass, exhibited in Class 53, No. 35, has been fitted in a number of vessels, and has given most complete satisfaction. Both capstan and windlass can be wrought by steam, and also by hand in the usual manner, when steam is not available. The principal improvements in this, as compared with other windlasses, are, the driving of the chain lifters by friction, and the direct application of steam-power. With this windlass fitted in a 2,000-ton ship 60 fathoms of chain have been taken in, and the anchor fished and catted complete in *eighteen minutes*.

Full particulars from the patentees and makers, as above.

Messrs. P. & Co. are also manufacturers of every description of steamship fittings, steam-engines, and general machinery. One of their winches, with pair double-action pumps, is exhibited in mouon, Class 53, No. 35. This winch is an exact duplicate of those supplied by Messrs. P. & Co. for the French mail steamers 'Péire' and 'Ville de Paris.'

Steam cranes, steam winches, steam capstans, donkey engines, crab winches, mast winches, distilling condensers, &c.; high-pressure engines and boilers for barges and pleasure boats; machines for ship-builders and boiler-makers; and stationary engines of every variety of size and arrangement. Illustrated catalogue and price list from MATTHEW PAUL & Co., engineers, millwrights, and boiler-makers, Levenford Works, Dumbarton, Scotland.

Ce guindeau, exposé dans la Classe 53, No. 35, et dont ont été munis de nombreux navires, a toujours donné la satisfaction la plus complète.

Cabestan et guindeau peuvent être mus l'un et l'autre par la vapeur, et à défaut, à main d'hommes selon la manière habitu-

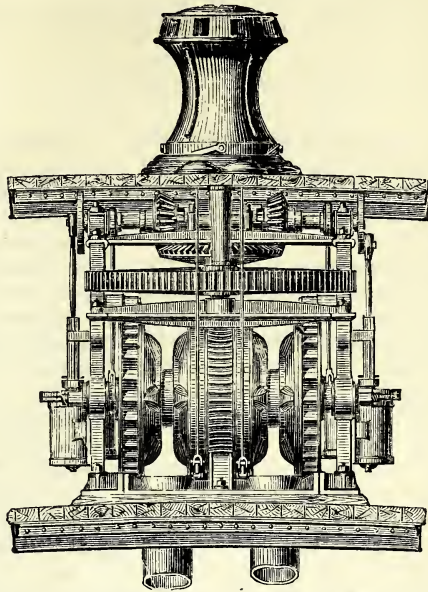
elle. Le perfectionnement principal apporté dans la construction de ce guindeau consiste dans l'action des aussières des chaînes par le frottement, et dans l'application directe de la force de vapeur. Par son usage à bord d'un navire de 2,000 tonnes 60 brasses de chaîne ont été retirées, et l'ancre a été traversée et caponnée, complètement, dans l'espace de *dix-huit minutes*.

Pour explication détaillée s'adresser aux fabricants, brevetés, à l'adresse ci-dessus.

MM. P. et Cie. fabriquent également toutes espèces d'agrs pour navires à vapeur, de machines à vapeur, et généralement toutes sortes de machines. Un de leurs treuils, avec une paire de pompes à double action, est exposé et fonctionne dans la Classe 53, No. 35, et est un double exact de ceux fournis par MM. P. et Cie. aux Paquebots-poste français le 'Péire' et la 'Ville de Paris.'

Grues à vapeur, guindeaux et cabestans à vapeur, machines à remplir les chaudières, chèvres, treuils pour mâts, condensateurs à distiller, etc. Machines et chaudières pour chalands et bateaux de plaisir; machines pour constructeurs de navires et fabricants de chaudières; et machines fixes de toutes dimensions et de tous systèmes. Catalogue illustré et prix-courants en s'adressant à MM. MATTHEW PAUL et Cie., ingénieurs, constructeurs de moulins, et fabricants de chaudières, aux usines de Levenford, Dumbarton, Ecosse.

PAUL, MATTHEW, & CO., *Levenford Works, Dumbarton, Scotland.*



Winde mit patentirter Reibung—*Mulinello ad Attrito (patentato).*

Mit dieser Schiffswinde, welche in Klasse 53, No. 35, ausgestellt ist, ist eine Anzahl von Schiffen versehen worden, und sie hat die vollständigste Zufriedenheit gegeben.

Sowohl Gangspill wie Schiffswinde können durch Dampf getrieben werden, und ebenso durch Handarbeit auf die gewöhnliche Weise, wenn kein Dampf vorhanden ist. Die hauptsächlichsten Verbesserungen in dieser Schiffswinde, in Vergleich mit andern Winden, sind die Bewegung der Ziehkette durch Reibung und die directe Anwendung von Dampfkraft. Mit dieser Winde, mit welcher ein Schiff von 2,000 Tonnen versehen war, 62 Klafter Kette wurden eingenommen, und der Anker gefischt und angehakt, in *achtzehn Minuten*.

Volle Einzelheiten von den Patent-Inhabern und Fabricanten, wie oben.

Herren P. & Co. sind auch Fabricanten von jeder Beschreibung von Dampfschiff-Ausrüstungen, Dampfmaschinen und allgemeiner Maschinerie. Eine ihrer Winden, mit einem Paar doppelt wirkenden Pumpen, ist in Klasse 53, No. 35, in Bewegung, ausgestellt. Diese Winde ist ein genaues Duplicat der von Herren P. & Co. für die Französischen Postdampfschiffe 'Péire' und 'Ville de Paris' gelieferten Winden.

Dampfkrahne, Dampfwinden, Dampfgangspille, Hilfsmaschinen, Hebewinden, Mastwinden, Compressions-Maschinen für Destillation u. s. w.; Hochdruck-Dampfmaschinen und Dampfkessel für Böte und Vergnügungsböte; Maschinen für Schiffbauer und Kesselschmiede; und stehende Dampfmaschinen von jeder Verschiedenheit in Grösse und Einrichtung. Illustrirte Cataloge und Preislisten von MATTHEW PAUL & Co., Ingenieure, Schiffbauer und Kesselschmiede, Levenford Works, Dumbarton, Schottland.

Questo Mulinello esposto alla Classe 53, No. 35, è stato fissato in un gran numero di navi ed ha data la più gran soddisfazione. Tanto l'argano quanto il mulinello può esser messo in azione dal vapore, ed anche a mano nel solito modo quando il vapore non è utilizzabile. I principali perfezionamenti in questo paragonato cogli altri mulinelli, sono la trazione delle corde delle catene per attrito, e l'applicazione diretta della forza del vapore. Con questo mulinello fissato in una nave di 2,000 tonnellate, 60 passi di catena sono stati tirati su, e l'ancora pescata e capponata completamente in *diciotto minuti*. Pieni dettagli dai patentati e fabbricanti come sopra.

I Sigri. P. e Cia. sono anche fabbricanti di ogni genere di fornimenti per battelli a vapore, motori a vapore e meccanismi in generale. Una delle loro manivelle con paio di pompe a doppia azione, è esposta in attività, Classe 52, No. 35. Questa manivella è una copia esatta di quelle fornite dai Sigri. P. e Cia. per i piroscafi postali francesi 'Péire' e 'Ville de Paris'.

Gru a vapore, arganelli a vapore, argani a vapore, macchine donkey, argani volanti, arganelli da albero, condensatori da distillazione, ecc. Motori e caldaie per barconi e barche di piacere; macchine per costruttori navali e fabbricanti di caldaie; e motori fissi di ogni varietà di grandezza e disposizione. Cataloghi illustrati e liste di prezzi da MATTHEW PAUL & CIA. ingegneri, macchinisti e fabbricanti di caldaie, Levenford Works, Dumbarton, Scozia.

ROYAL SOCIETY FOR THE PROTECTION OF LIFE FROM FIRE.

Fire-escape as used by the Royal Society for the Protection of Life from Fire. Built with all modern registered improvements, by Mr. George Clarke, London. (Original inventor, Mr. Abraham Whivell.)

The main ladder reaches from 30 to 35 feet, and can instantly be applied to most second-floor windows by means of the carriage lever. The upper ladder folds over the main ladder, and is raised easily in the position represented by a rope attached to its lever irons on either side of the main ladder, or, as recently adopted in one or two of the escapes, by an arrangement of pulleys in lieu of the lever irons. The short ladder, for first floors, fits in under the carriage, and is often of the greatest service. Under the whole length of the main ladder is a canvas trough or bagging, made of stout sailcloth, protected by an outer trough of copper gauze, leaving sufficient room between for the yielding of the canvas in a person's descent. The addition of the gauze netting has always been found useful, as, although not affording an entire protection against the canvas burning, it in most cases avails, and prevents the possibility of any one falling through. The soaking of the canvas in alum and other solutions has never been omitted; but this, while preventing its flaming, cannot preclude the risk of accidents from the fire charring the canvas.

The height attainable by this escape varies from 60 to 80 feet, according to the supplemental ladders carried, which are made to fit into each other.

Amongst the more recent improvements has been the unshipment of the upper ladder, to which the short or first-floor ladder is fitted, the whole length being carried, with a rope and belt attached, where the large escape cannot be used. The total cost of this escape is about 100*l*.

To this escape, constructed by Mr. George Clarke, the Society's builder, was awarded the Exhibition Medal of 1862.

L'appareil de sauvetage de M. Wivell est construit sur le principe de celui adopté en 1841, mais grandement perfectionné à plusieurs reprises.

La principale échelle a de 30 à 35 pieds, et peut instantanément être appliquée contre les fenêtres du 2^e ou 3^e étage au moyen du levier de la voiture. L'échelle supérieure repliée sur l'échelle principale est mise aisément dans la position où elle est représentée par une corde attachée aux leviers de fer qui se trouvent à chaque côté de l'échelle principale, ou, comme on l'a récemment adopté, par un arrangement de poulies qui remplacent les leviers de fer. La petite échelle pour le premier étage, qui peut être placée sous la voiture, est souvent d'une grande utilité. Sous toute la longueur de l'échelle principale se trouve un morceau de toile à voile soutenu à l'extérieur par un filet en fil de cuivre, laissant un espace suffisant pour que la toile puisse se prêter à la descente d'une personne. L'addition d'un filet métallique a toujours été trouvée très-utile, car quoique ne protégeant pas entièrement la toile contre le feu, il prévient et évite, dans le plus grand nombre de cas, la possibilité d'une chute à travers. On n'a jamais omis d'imbiber la toile dans une solution chimique, pour en empêcher l'inflammation, quoique cela ne puisse prévenir les accidents par suite de la carbonisation de cette toile; cependant la substitution d'une gaze métallique a été reconnue très-utile, et est maintenant appliquée à presque tous les appareils.

La hauteur qu'on peut atteindre avec ces appareils varie de 60 à 80 pieds, suivant le nombre d'échelles supplémentaires, qui sont faites de manière à s'ajuster l'une dans l'autre.

Parmi les améliorations les plus récentes est la possibilité de détacher l'échelle supérieure, à laquelle la petite échelle pour les premiers étages est attachée, et que l'on peut transporter avec une corde et une ceinture dans des endroits où l'appareil entier ne peut servir.

Cet appareil de sauvetage construit par M. Clarke, constructeur de la Société, a obtenu la Médaille de l'Exposition de 1862.

RUSSELL, JOHN, & CO., 69 Upper Thames-street, London, E.C.

Established from the commencement of Gas Lighting.

Etablissement fondé depuis le commencement de l'éclairage du gaz.

Etabliert seit Einführung der Gasbeleuchtung.

MARQUE DE FABRIQUE.



FABRIKZEICHEN.

First Class Prize Medal, Paris, 1855; First Class Prize Medal, Dublin, 1865.

Manufacturers of patent welded iron tubes and fittings for gas, steam, and water, tubes for hydraulic purposes, high pressure tubes, with right and left hand screws, galvanized and enamelled tubes, gun metal steam cocks, &c., &c.

Inventors and first makers of lapwelded tubes for locomotive and marine boilers.

Warehouses: 69 Upper Thames-street, E.C.; 5 Charles-street, Soho-square, W.; Commercial-street, Spitalfields, N.E., London; and 35, 36, 37, & 39 Granby-row, Manchester.

Manufactories: The Old Tube Works, Church-hill, Wednesbury; and the Alma Tube Works, Walsall, Staffordshire.

Médaille de 1^{re} Classe à l'Exposition Universelle de Paris, 1855; Médaille de 1^{re} Classe à l'Exposition de Dublin, 1865.

Fabricants de tubes en fer étiré et appareils d'ajustage pour le gaz, l'eau et la vapeur, de tuyaux hydrauliques, de tuyaux à haute pression avec vis à droite et à gauche, de tuyaux galvanisés et émaillés, de robinets de vapeur en métal de canon, etc. etc.

MM. JOHN RUSSELL & C^{ie}. sont les inventeurs et premiers fabricants de tubes en fer forgé à recouvrement, sans soudure, pour

chaudières de locomotives et chaudières de marine.

Magasins de Dépôt: 69 Upper Thames-street, E.C.; 5 Charles-street, Soho-square, W.; Commercial-street, Spitalfields, N.E., à Londres; et 35, 36, 37, et 39 Granby-row, à Manchester.

Usines: The Old Tube Works, Church-hill, Wednesbury, et The Alma Tube Works, Walsall, Staffordshire.

Erster Preis in Pariser Ausstellung, 1855; erster Preis in Dubliner Ausstellung, 1865.

Fabricanten von patentirten geschweissten Röhren und Verbindungsstücken für Gas-, Dampf- und Wasserleitungen, Röhren für hydraulische Zwecke, Hochdruckröhren mit rechtem und linkem Gewinde, galvanisirten und emailirten Röhren, Dampfkrahnen von Kanonenmetall u. s. w. u. s. w.

Erfinder und erste Fabricanten von übereinander geschweissten Röhren für Locomotiven und Schiffsdampfkessel.

Waarenlager: 69 Upper Thames-street, E.C.; 5 Charles-street, Soho-square, W.; Commercial-street, Spitalfields, N.E., London; und 35, 36, 37 & 39 Granby-row, Manchester.

Fabriken: The Old Tube Works, Church-hill, Wednesbury; und The Alma Tube Works, Walsall, Staffordshire, England.

CLASS LIV.

POWIS, JAMES, & CO., *Victoria Works, Vine-street, York-road, Lambeth, London, s.*



Saw-Mill Engineers and Iron Founders.

Ingénieurs, Fondateurs et Constructeurs de Scieries.

Sägemühlen-Ingenieure und Eisengiesser.

Ingegneri per Seghe a Macchina e Fonditori di Ferro.



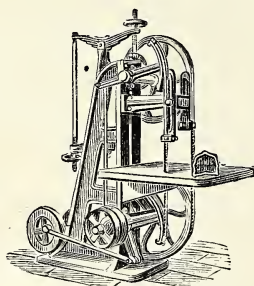
Were awarded, at International Exhibition, London, 1862, the only Prize Medal given for First-class Wood-working Machinery.

Patented for Great Britain, France, Belgium, &c., a combined endless band and up-and-down saw machine.

Patented in Great Britain, France, Belgium, &c., a moulding and planing machine, with all four cutters working outside, and the vertical spindles adjustable to any angle.

See also seven other new and improved machines exhibited with the above in Group VI. Class 54.

Prices and drawings supplied upon application to our works, London, for all kinds of machinery for working in wood.



Patent Combined Endless Band and Up and Down Saw.

Erhielten bei der internationalen Ausstellung im Jahre 1862 die einzige Medaille, welche für ausgezeichnete Holz zurichtende Maschinerie bewilligt wurde.

Sind patentirt für Grossbritannien, Frankreich, Belgien etc., für ihre Sägemaschine, mit endlosem Riemen und Bewegung auf und niederwärts.

Patentirt für Grossbritannien, Frankreich, Belgien etc., eine Verzierhobelmaschine, deren vier Hobeisen an der Aussenseite arbeiten und deren verticalen Spindeln auf irgend einen Winkel gestellt werden können.

Siehe ebenso sieben andere neue und verbesserte Maschinen, welche nebst den andern in Gruppe VI. Klasse 54, aus-

stellt sind.

Preislisten und Zeichnungen aller Sorten Maschinen zur Bearbeitung von Holz werden auf Verlangen zugesendet.

Ont remporté, à l'Exposition Internationale de Londres de 1862, l'unique Médaille décernée pour Machines de Première Classe à travailler le Bois.

Machine à faire les moulures et à raboter, avec les quatre coupleurs travaillant en dehors et les essieux verticaux s'ajustant à tout angle, brevetée pour la Grande-Bretagne, la France, la Belgique, etc.

Voir aussi sept autres machines nouvelles et perfectionnées qu'on expose avec celle mentionnée ci-dessus, Groupe VI. Classe 54.

Prix et dessins fournis sur demande à nos usines, à Londres, pour machines de toutes sortes à travailler le bois.

La sola Medaglia aggiudicata per Meccanismi per far Lavori in Legno di Prima Classe fu data a loro all'Esposizione Internazionale di Londra, 1862.

Macchina per far modanature e piallare, i suoi quattro tagliatori funzionando al di fuori e gli assi verticali che si aggiustano ad ogni angolo, patentata in Gran-Bretagna, Francia, Belgio, ecc.

Vedasi anche sette altre macchine di costruzione nuova e perfezionata che si espongono con quella sopradetta, Gruppo VI. Classe 54.

Prezzi e disegni forniti a richiesta alle nostre officine in Londra per ogni specie di meccanismi per lavori in legno.

ROBINSON, THOMAS, & SON, *Rochdale, near Manchester; London Office, 59 Cannon-street, E.C.*



Saw Mill Engineers and Wood-Working Machinists.

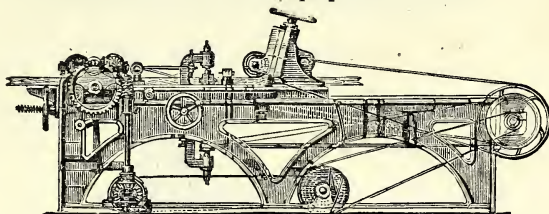
Ingenieurs.—Constructeurs de Scieries mécaniques et de Machines-Outils pour le Travail du bois.

Prize Medal, London, 1862.



The machinery exhibited by T. R. & SON is a moderate-sized working plant for a joiner or builder, combining all the latest improvements. In addition to their engineering works, which are the largest in Great Britain devoted specially to the manufacture of wood-working machinery, T. R. & SON have for the last fifteen years been proprietors of extensive sawing, planing, and moulding mills, in which they manufacture mouldings, doors, windows, and other articles in wood, by machinery. The experience thus acquired has enabled them to bring their wood-working machinery to a greater state of perfection and simplicity of construction than any other makers in the trade; while parties visiting their works can at all times see in operation the machinery they propose purchasing.

Les machines exposées par T. R. et FILS sont des modèles de moyenne grandeur généralement employés par les menuisiers et les constructeurs, et comportant les perfectionnements les plus récents. En dehors de leurs ateliers de construction, qui sont les plus considérables de l'Angleterre dans la spécialité de l'outillage mécanique du bois, MM. T. R. et FILS sont propriétaires depuis quinze ans d'une grande scierie et usine à bois, où ils fabriquent mécaniquement des moulures, des portes et fenêtres et d'autres ouvrages en bois, à qui les a mis à même de simplifier et de rendre vraiment pratique la construction de ces machines plus que toute autre maison dans la même branche. Toutes les personnes qui voudront bien honorer leurs ateliers d'une visite pourront voir en opération les machines qu'elles se proposent d'acheter.



Patent Moulding Machine—Machine à Faire les Moulures, brevetée, s.g.d.g.

T. R. & SON forward, post free, to intending purchasers, catalogues and price-lists in English, French, and German, in which will be found drawings and descriptions of the principal machines they make, consisting of timber and deal frames, circular saw benches, veneer sawing machines, endless band saws, sweep cutting saws, moulding, planing, and squaring machines, mortising, tenoning, and boring machines, wheel-spoke machines, grinding machines for plane and moulding irons, wood-turning lathes, steam-engines, boilers, shafting, gearing, &c.

T. R. & SON also furnish estimates for machines used in the manufactures of casks, barrels, wheels, rifle-stocks, &c.; and make machines for special purposes when required.

Complete sets of machinery designed and arranged for builders, contractors, timber merchants, sawing, planing, and moulding mills, ship-builders, waggon-builders, railway companies, government arsenals, dockyards, &c.

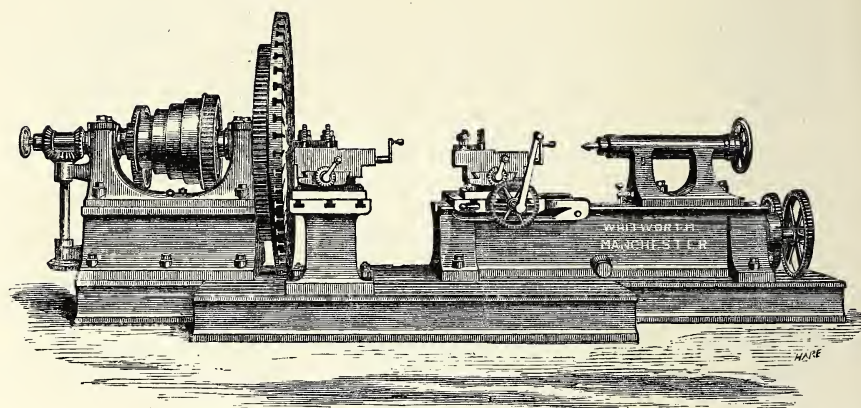
MM. T. R. et FILS envoient franco par la poste des catalogues et des prix-courants en anglais, français et allemand, dans lesquels se trouvent les dessins et les descriptions des machines principales qu'ils fabriquent, savoir: scieries pour bois en grume et à madriers, scieries circulaires, scieries placage, scieries à lame sans fin, scieries à chantourner, machines à raboter, équarrir et faire les moulures, machines à mortaiser, percer et faire les tenons, machines à faire les rais de roues, machines à affûter les fers à raboter et moulures, tours à bois, machines et chaudières à vapeur, transmissions de mouvement, etc.

MM. T. R. et FILS aussi fournissent des devis spéciaux pour les machines à faire les tonneaux, les roues des wagons, les crosses de fusils, etc., et d'autres machines spéciales sur commande.

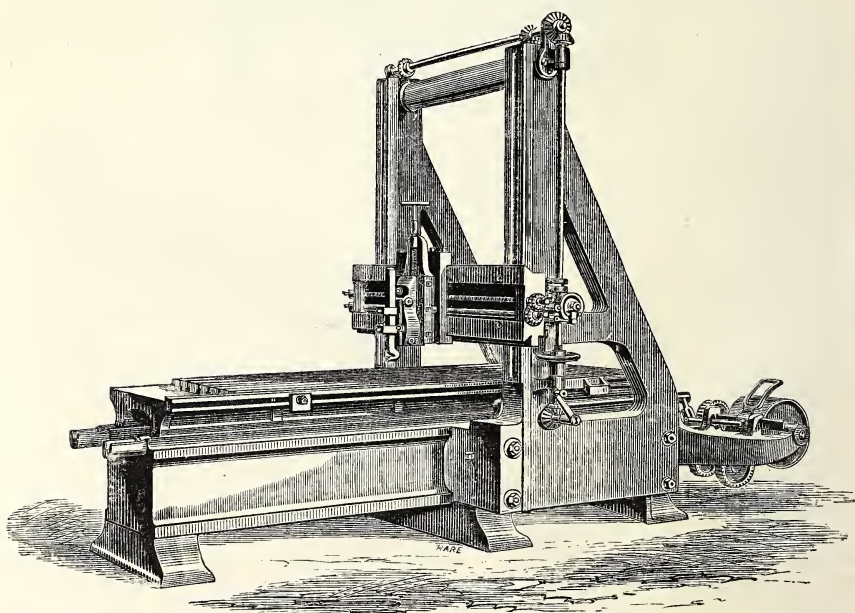
Assortiment complet des machines arrangé et dessiné pour des ateliers de constructeurs, entrepreneurs, marchands de bois, scieurs et fabricants de moulures, constructeurs de wagons, de matériel de chemins de fer, arsenaux militaires et maritimes, etc.

THE WHITWORTH COMPANY (LIMITED).—*Works, 44 Chorlton-street, Manchester ;
London Office, 28, Pall Mall, S.W.*

Engineers, and Manufacturers of all descriptions of Engineers' Tools ; Sole Makers of the
'Allen' Engine, and Porter's Patent Governors.

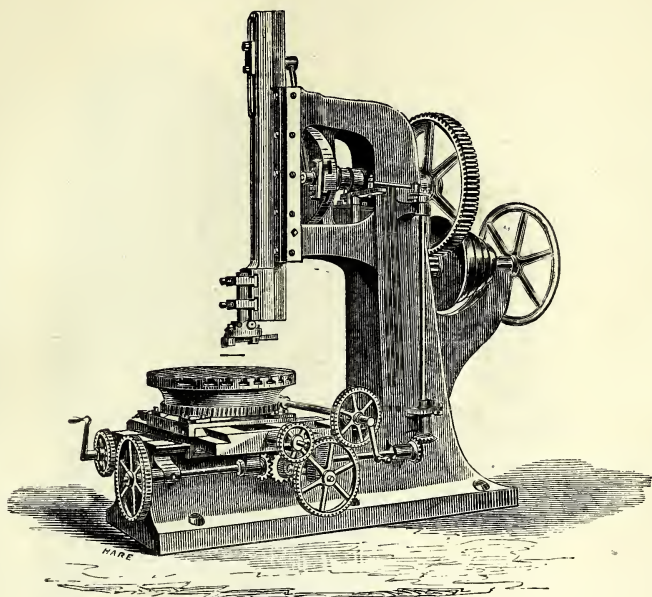


Self-acting Break Lathe to turn 6 ft. in diameter.

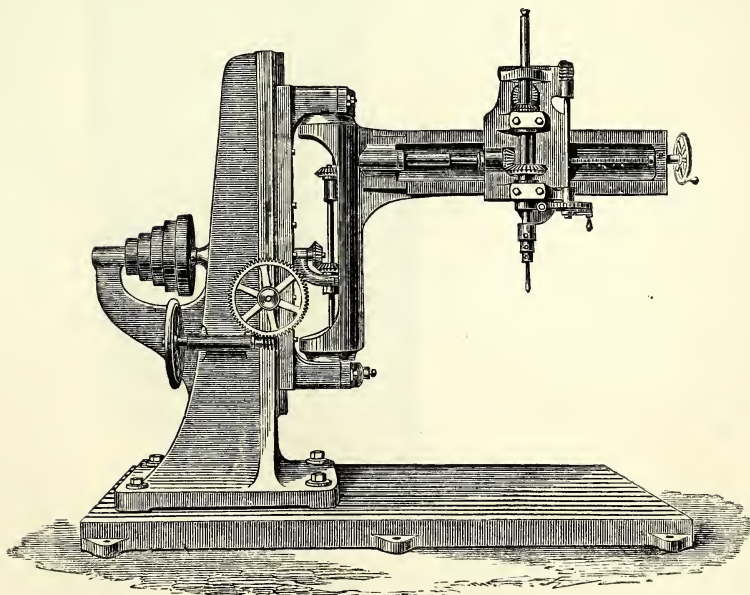


Self-acting Screw-Planing Machine with fixed Tool and quick return.

THE WHITWORTH COMPANY (LIMITED).—*Works, 44 Chorlton-street, Manchester;
London Office, 28, Pall Mall, s.w.*



Self-acting Slotting Machine, 18 inches stroke.



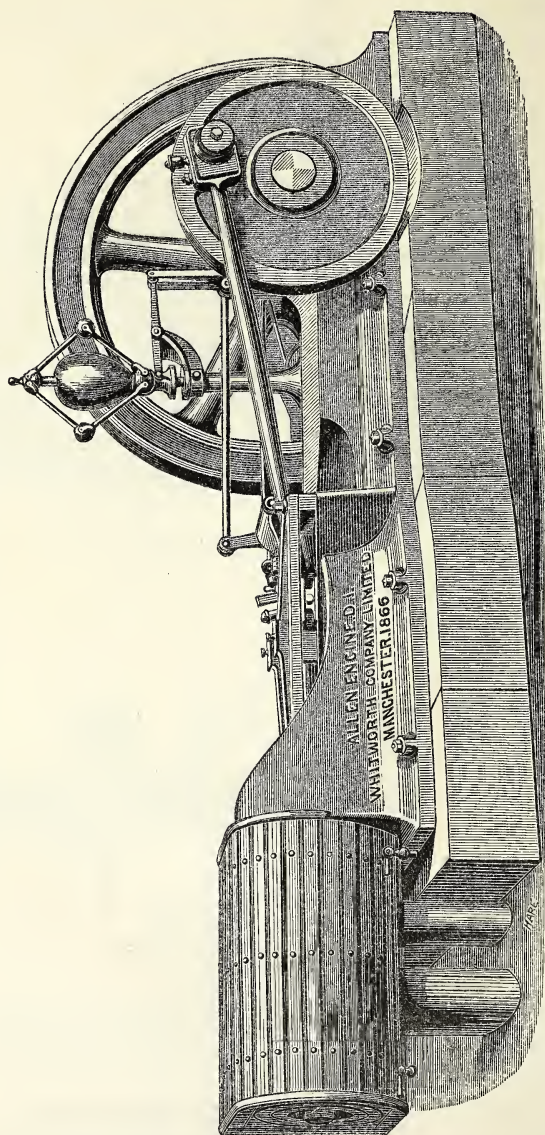
Self-acting Radial Drilling Machine, 5 ft. 10 in. radius.

THE WHITWORTH COMPANY (LIMITED).—*Works, 44 Chorlton-street, Manchester ;
London Office, 28 Pall Mall, s.w.*

THE 'ALLEN' ENGINE,

Which gained the Prize Medal at the International Exhibition, London, 1862 ; also at the Oporto Exhibition, 1865.

Specially adapted for high speed, and to ensure the greatest economy.



The 'Allen' Engines, and Porter's Patent Governors, are manufactured solely by

THE WHITWORTH COMPANY (LIMITED), *Manchester.*

CLASS LV.

FERRABEE, JAMES, *Port Mills, Brimscombe, near Stroud, Gloucestershire, England.*

Carded Wool, Woollen Yarn, Woollen Cloth in various stages, Broad and Narrow Finished Cloths; Mechanical Felts.

Improved Machinery for Carding Wool, fitted with FERRABEE's Patent Continuous Bat-feeding Machinery.

FERRABEE's Patent Feeding Machinery takes the wool from the 'doffer' of the opening carding engine in the form of a 'fleece' or thin 'sheet sliver' the full width of the doffer, and disposes it in diagonal folds crossing each other alternately on an endless apron running at right angles to the axis of the doffer, forming thereon a continuous narrow sliver from 9 to 12in. in width, which sliver is carried forwards mechanically, and laid without any stretching in diagonal layers, one overlapping the other, forming a continuous uniform 'bat' of any desired width or thickness on the feed apron of another carding engine.

This system of feeding is adapted for either long-stapled wools or short material. The material undergoes in its progress through the machines a thorough mixing, is always submitted to the action of the cards in the best way for securing a perfect distribution of its fibres, and for producing uniform 'slubbing' on threads from the condenser.

One of the improved 'Feeds' is exhibited in the Machinery Department of the Exhibition, Class 55, attached to a carding engine and condenser, made by JOHN TATHAM, of Moss Lane Works, Rochdale, England, of whom particulars may be obtained, or from his agent in attendance on the machines, in the Exhibition, or from the Patentee of the 'Feeds,' addressed as above. The carding engines are well constructed and possess increased facilities for adjustment; the cylinders, &c., are made of iron, and the axles of steel, and well balanced. They also revolve with great accuracy.

Mr. TATHAM is an extensive maker of all kinds of cotton and woollen machinery, and was awarded the Prize Medal at the Dublin Exhibition, 1865, for carding and spinning machinery. His Patent Self-acting Mule was highly spoken of, as being adapted for all kinds of wool, cotton, &c.

A very simple Slubbing or Roving Frame, for cotton, patented by Mr. TATHAM, is here exhibited, which dispenses with the complicated change motions and cumbrous cone drums, which have been hitherto used and distributed over a considerable length of the machine.

Another very ingenious machine, patented by Mr. TATHAM is exhibited, for making laps of cotton, wool, worsted, &c., and is entirely self-acting and simple. It takes in the empty bobbins and delivers the full ones, and goes on for any quantity of bobbins which may be put in the feeding hopper.

diagonalement en plis qui se croisent l'un l'autre alternativement sur un tablier sans fin courant à angles droits de l'axe du peigneux, formant sur le dit tablier un ruban étroit et continu de 22c.86 à 30c.48 de largeur, lequel est reporté en avant mécaniquement et étendu sans étirage en couches diagonales, se recouvrant l'une l'autre, produisant ainsi une nappe uniforme et continue de toute largeur ou épaisseur désirée sur le tablier d'alimentation d'une autre cardeuse.

Ce système d'alimentation est adapté aux laines soit à longue soit à courte soie. Par son emploi la matière première subit dans sa marche à travers les machines un mélange complet, et est toujours soumise à l'action des cardes de la manière la plus propre à assurer une parfaite distribution de ses fibres, et à produire un boudinage uniforme sur les fils provenant du condenseur.

Un de ces Alimenteurs perfectionnés est exposé dans le Département des Instruments de Travail, Classe 55, attaché à une machine à cardes et condenseur, fabriqués par JOHN TATHAM, des Usines de Moss-lane, Rochdale, Angleterre, de qui peuvent se procurer les détails, ainsi que de son agent qui surveille les machines à l'Exposition, ou des Inventeurs brevetés des Alimenteurs, à l'adresse ci-dessus. Ces machines à carder sont d'une excellente construction, avec de plus grandes facilités d'ajustement; les cylindres, etc., sont en fer et les essieux en acier, et parfaitement équilibrés. Leur révolutions, en outre, s'accomplissent avec une grande précision.

M. TATHAM est annuellement le constructeur d'une quantité considérable de machines à travailler le coton et la laine, et a obtenu la Médaille à l'Exposition de Dublin en 1865, pour ses machines à carder et à filer. Sa Mule-Jenny automate brevetée y reçut les plus grands éloges pour son adaptation à toutes espèces de laine, coton, etc.

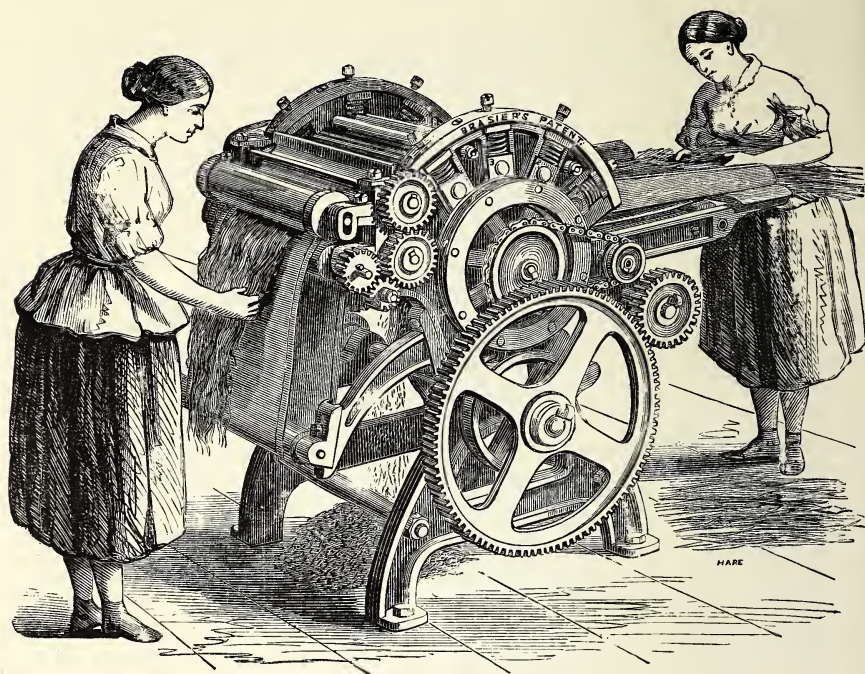
On trouvera aussi dans cette exposition un Métier à Boudiner, pour coton—pour lequel un brevet a été pris par M. TATHAM—d'une construction très-simple; et débarrassé des changements de mouvements compliqués, et des incommodes tambours coniques, jusqu'alors en usage et distribués sur une longueur considérable de la machine.

Une autre machine fort ingénieuse—pour laquelle M. TATHAM a également pris un brevet d'invention—fait aussi partie de cette exposition; c'est une machine à faire les rubans de coton, laine, laine filée, etc., parfaitement automate, et très-simple. Elle prend les bobines vides et rend les pleines, et ainsi de suite quelle que soit la quantité de bobines qui puissent être mises dans la trémie d'alimentation.

Le Système Alimentaire Breveté de FERRABEE prend la laine du peigneux cylindrique de l'ouvreuse sous la forme d'une tranche mince de toute la largeur du peigneux, et la dispose

HODGKIN, JOHN ELIOT, *West Derby, Liverpool.*

Brasier's treble-patent Breaking and Scutching Machinery.



The greatest obstacles to the full development of the cultivation and use of our native fibre, *flax*, have hitherto been the cumbrous nature of the machinery employed for its reduction to a state fit for spinning, the necessity for the employment of skilled labour, and, above all, the *waste* which ensues upon the treatment of the straw by any of the means at present in use. The key to these difficulties is to be found in the fact that the useful fibre adheres with great persistence to the '*shive*,' no matter how perfectly the '*retting*' may have been effected.

The machinery here exhibited overcomes, for the first time, the impediments which have existed throughout the whole history of flax cultivation. By the operation of the *patent Breaker*, *three-fourths* of the weight of the woody portion are entirely removed, and the product, possessing *half* the weight of the original straw, has obtained a value per cwt. of from *four to five times* that of the article which entered the machine. Whilst so large a portion of the '*shive*' has been removed, the *whole* has been separated and loosened, and in the second operation the enormous value of the first is manifested. In the ordinary process of *scutching*, where straw

is acted upon which has been only *crushed* and *flattened* in the first or breaking process, great severity is necessarily exercised upon the fibre, without which it would be impossible to bring out the flax at all free from the closely adherent '*shive*.' In the *patent Scutchers*, the lightest possible blow is given to the fibre, which a child can hold in its place, and a very great saving (averaging about 25 per cent. of finished flax) is hereby effected. A very small proportion of *tow* is made, and by the peculiar arrangement of the dressing apparatus, that small quantity is delivered in a marketable state at the end of the machine.

The advantages of the patent machines may be thus summed up—

- No skilled labour required.*
- Great compactness.*
- Avoidance of all injury to fibre.*
- Saving of 25 per cent. of long fibre.*
- Cleansing of the whole of the tow.*

The machines can be adapted for *hemp*.

For further particulars, and for price of machines, and royalty on English, American, and Continental patents, apply to the exhibitor.

HOWARD & BULLOUGH, *Globe Works, Accrington, near Manchester.*

Self-stopping Beaming Frame.

The peculiarity of our Beaming Frame consists in its stopping self-actingly when an end breaks. This property renders it impossible for the most careless warper to produce bad work, whereas, on the old system, the utmost diligence failed to detect, in the course of a day, many broken ends in time to stop the machine before they had been run on too far for recovery. In England it has grown so rapidly in public favour that in less than four years from its introduction it has completely superseded every other machine.

Self-changing Shuttle Loom.

Our Self-changing Shuttle Loom is supplied with twelve shuttles. When the weft breaks in the working shuttle, it is ejected, and another shuttle is caused to take its place, and so on till all the shuttles are used up, when the loom stops. If, however, the weaver returns before the twelve shuttles are exhausted, he can replace the whole with the loom working at full speed. As a weaver is only absent from a loom in very exceptional cases such a length of time, there should be no stoppage for weft from morning till night. This gives an increase of work proportionate to the time thus saved, and a weaver may mind four or five looms with as much ease as three ordinary looms. The cost of a loom on this principle will not be more than that of an ordinary loom.

Machine for Making Expanding Combs, &c.

This being perfectly self-acting, the dents are far more regular than combs, &c. made by hand, and the price of them is reduced 40 per cent.

Ourdissoir à casse-fil.

Le caractère distinctif de cette machine consiste en ce qu'elle s'arrête d'elle-même aussitôt qu'un fil se rompt. Cette propriété rend impossible à l'ourdisseur le plus négligent de produire du mauvais ouvrage, tandis que dans l'ancien système la plus grande vigilance ne parvenait pas à découvrir dans le cours de la journée nombreux de fils rompus, assez à temps pour arrêter la machine avant qu'ils ne fussent trop loin pour pouvoir être rattachés. Cette machine a été accueillie en Angleterre avec une faveur publique si marquée, qu'elle a remplacée toute autre machine dans l'espace de moins de quatre ans depuis son introduction.

Métier à Tisser.

Notre métier à navettes se changeant d'elles-mêmes est muni de douze navettes. Lorsque la trame se rompt dans la navette qui fonctionne, celle-ci est rejetée au dehors, une autre prend sa place, et ainsi de suite jusqu'à ce que toutes aient été employées; alors le métier s'arrête. Si, cependant, le tisserand revient avant que les douze navettes ne soient épuisées, il peut les remplacer toutes sans que le métier ralentisse la rapidité de sa marche. Mais comme il est

rare qu'un tisserand s'éloigne d'un métier durant un aussi long espace de temps, excepté dans des circonstances tout-à-fait exceptionnelles, il s'ensuit qu'avec notre métier il n'y a nul arrêt dans la trame depuis le matin jusqu'à la nuit. Ceci donne donc une augmentation de travail proportionnelle au temps gagné, et en outre un tisserand peut faire marcher quatre ou cinq métiers de ce système avec autant de facilité que trois métiers ordinaires. Enfin un métier construit d'après ce principe ne coûtera plus qu'un métier ordinaire.

Machine à Fabriquer des Peignes à Expansion, etc.

Cette machine étant parfaitement automatique, les creux sont beaucoup plus réguliers que dans les peignes, etc., faits à la main, et leur prix est réduit de 40 pour cent.

Selbst anhaltende Aufbaummaschine.

Die Eigenthümlichkeit unserer Aufbaummaschine besteht darin, dass sie von selbst anhält, wenn ein Faden reisst. Diese Eigenschaft macht es selbst für den unachtsamsten Weber unmöglich, schlechte Arbeit zu produciren, während, an dem alten System, die grösste Aufmerksamkeit, in dem Laufe eines Tages, viele gerissene Faden nicht zeitig genug entdecken konnte, um die Maschine, ehe jene zu weit gelaufen waren, für ihre Wiedererlangung anzuhalten. Sie hat so schnell in England öffentlichen Gefallen gefunden, dass in weniger als vier Jahren von ihrer Einführung sie jede andere Maschine vollständig unnöthig gemacht hat.

Selbst wechselnder Webestuhl.

Unser Webestuhl, welcher seine Schiffchen selbst ändert, ist mit zwölf Schiffchen versehen. Wenn der Einschuss in dem arbeitenden Schiffchen reisst, so wird dasselbe herausgeworfen, und ein anderes Schiffchen nimmt seinen Platz ein, und so fort, bis alle Schiffchen verbraucht sind, wenn der Webestuhl anhält. Wenn jedoch der Weber zurückkehrt, ehe die zwölf Schiffchen ausgebraucht sind, so kann er sie Alle wieder in ihren Platz bringen, während der Webestuhl in voller Arbeit bleibt. Da aber ein Weber in sehr seltenen Fällen von dem Webestuhl so lange fort ist, so sollte keine Pause für Einschuss von Morgens bis Abends sein. Dies ergibt eine grössere Quantität von Arbeit in Proportion mit der so ersparten Zeit, und ein Weber kann vier oder fünf Webestühle mit derselben Leichtigkeit überwachern wie drei gewöhnliche Webestühle. Der Preis eines Webestuhls nach diesem Princip wird nicht mehr als der eines gewöhnlichen Webestuhles sein.

Maschine zum Verfertigen von sich ausdehnenden Webekämmen etc.

Da diese Maschine sich selbst regulirt, so sind folglich die Zähne viel regelmässiger als diejenigen von Kämmen etc., welche mit der Hand gemacht sind, und der Preis derselben ist 40 Procent reducirt.

PLATT BROTHERS & CO., *Hartford Iron Works, Oldham.*

Preparing, Spinning, and Weaving Machinery for Cotton and Woollen.
Machines pour Préparer, Filer et Tisser le Coton et la Laine.

AN IMPROVED SINGLE ACTION MACARTHY
COTTON GIN,

40 inches wide, fitted with suitable arrangements for altering with facility, the overlap of the moving knife, to suit various lengths of staple, from long to short cotton.

Is specially recommended for countries where varieties of long and short stapled cotton are grown.

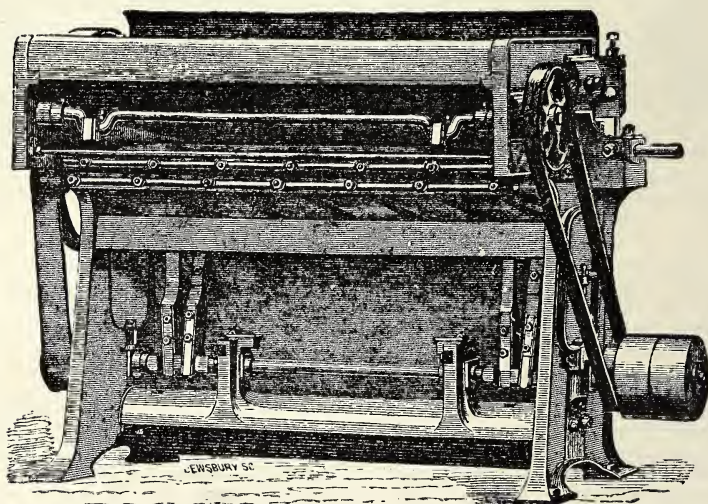
Speed of crank-shaft 600 revolutions per minute, production 20 to 50 lbs. of clean cotton per hour according to the class of cotton ginned.

UNE MACHINE PERFECTIONNÉE, À SIMPLE ACTION, POUR EGRENER LE COTON, SYSTÈME MACARTHY,

de 40 pouces (1 m. 016) de largeur, munie de dispositions convenables pour modifier facilement le recouvrement du couteau mouvant de façon à s'appliquer aux diverses grandeurs de longues et courtes fibres du coton.

Spécialement recommandée pour les contrées où se récoltent des variétés de coton à longues et courtes soies.

Vitesse de la bielle, 600 révolutions par minute, production 20 à 50 livres de coton nettoyé (9 kilogr. 08 à 22 kilogr. 70) par heure, selon la sorte du coton égrené.



Patent Self-feeding Double-action Macarthy Cotton Gin for Power.
Machine à Egrenier le Coton à double effet, s'alimentant d'elle-même, brevetée, de Macarthy, mue par force de vapeur ou autre.

A PATENT DOUBLE ACTION MACARTHY
GIN,

40 inches wide, fitted with Platt and Richardson's patent balanced crank and two working knives.

Advantages.—Smaller speed of crank-shaft, greater number of vibrations of knives, greater steadiness of motion, and increased production.

UNE MACHINE BREVETÉE À DOUBLE ACTION
POUR EGRENER, SYSTÈME MACARTHY.

de 40 pouces (1 m. 016) de largeur, munie de la bielle à contre-poids brevetée de Platt et Richardson et de deux couteaux travailleurs.

Avantages.—Marche moins rapide de la bielle, un plus grand nombre de vibrations des couteaux, plus grande régularité de mouvement, et accroissement de production.

PLATT BROTHERS & CO., *Hartford Iron Works, Oldham.*

Egrenir-, Spinn- und Webe-Maschinen für Baumwolle und Wolle.
Macchine da Preparare, Filare e Tessere il Cotone e la Lana.

EINE VERBESSERTE EINFACH WIRKENDE
 MACARTHY-EGRENIRMASCHINE,

40 Zoll breit, mit einer zweckmässigen Einrichtung, das Ueberhängen des beweglichen Messers mit Leichtigkeit den verschiedenen Längen der Baumwollenfasern anzupassen.

Ist besonders den Ländern zu empfehlen, wo Baumwolle mit langem und kurzem Stapel gezogen werden.

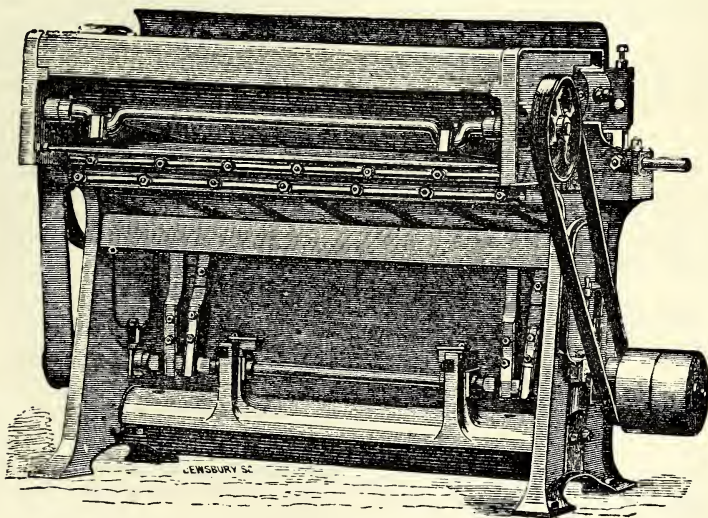
Die Schnelligkeit der Kurbelachse ist 600 Umdrehungen in der Minute, die Production 20 bis 50 Pfund gereinigte Baumwolle in der Stunde, je nach der Art der zu reinigenden Baumwolle.

MACCHINA DA SGRANELLAR COTONE, DI
 MACARTHY, AD AZIONE SINGOLA PERFEZIONATA,

larga 40 pollici, fornita di congegno adattato per variare con facilità la sovrapposizione della lama mobile, per adattarla alle varie lunghezze della fibra del cotone, dalla lunga alla corta.

È specialmente raccomandata per quei paesi in cui si producono varietà di cotone a fibra lunga e corta.

Velocità dell' asse a lieva 600 rivoluzioni per minuto, prodotto 20 a 50 lbe. di cotone sgranellato per ora, secondo la classe del cotone da sgranellare.



Patentirte selbst fütternde doppelt wirkende Macarthy-Egrenirmaschine für Dampfkraft.
Macchina di Macarthy, con alimentatore automatico, a doppia azione (patentata).

EINE PATENTIRTE DOPPELT WIRKENDE
 MACARTHY-EGRENIRMASCHINE,

40 Zoll breit, ausgerüstet mit Platt und Richardson's patentirter balancirter Kurbel und zwei arbeitenden Messern.

Vorzüge.—Geringere Schnelligkeit der Kurbelachse, grössere Anzahl der Vibrationen der Messer, grössere Stetigkeit der Bewegung und vermehrte Production.

MACCHINA DI MACARTHY A DOPPIA AZIONE
 (PATENTATA),

larga 40 pollici, fornita dell' asse a lieva bilanciata, e due lame in attività di Platt e Richardson (patentata).

Vantaggi.—Minor velocità di asse a lieva, maggior numero di vibrazioni delle lame, maggior regolarità di movimento e accrescimento del prodotto.

Speed of crank shaft 450 revolutions per minute, vibrations of knives 900, production of clean cotton 40 @ 75 lbs.

Recommended for all cottons with short and medium staples.

Both single and double action gins are also fitted with patent self-feeders, by use of which one person may attend to four or six gins.

'A PATENT DOUBLE ACTION 'HAND POWER' MACARTHY GIN,

12 inches wide, fitted with Platt and Richardson's patent balanced crank and two working knives.

Speed of Macarthy roller, 50 revolutions per minute (driven by two men); production 10 lbs. of clean cotton per hour.

Each gin is fitted with a 'Patent Fibre Macarthy Roller,' which is much more durable than those covered with leather, or other materials previously used. Its surface is uniform throughout, and it does not become smooth by working, so that the production of the machine is maintained as long as the roller lasts.

The fibre is put on the roller shaft in rings, which are easily replaced when worn out, or in case of accidental damage to the roller.

A SINGLE SCUTCHER AND LAP MACHINE,

with down draft, to make laps for carding engines 40 inches on wire. Fitted with Mohlers' patent pedestals to the beater, with feeder for spreading and for laps.

Note.—We are obliged by our limited space to work this machine for both breaking and finishing the laps, and to dispense with the opening machine.

But opening machines are made by us, of various kinds, and with and without lap machines.

Scutchers are also made with both single and double beaters, and with up and down draft, and with and without patent feeders, to suit the quality and quantity of cotton to be worked.

No. 1. A SINGLE IRON CARDING ENGINE WITH CYLINDER,

40 inches on wire, by 45½ inches diameter; taker-in 9 inches diameter; doffer 22 inches, fancy and fancy stripper, six rollers and six clearers, feeder with roller in dish, improved fly comb to strip the doffer, draw box delivery and coiler for 36 × 9 inch cans.

Vitesse de la bielle, 450 révolutions par minute; vibrations des couteaux, 900; production de coton nettoyé 40 à 75 livres (18 kilogr. 16 à 34 kilogr. 05).

Recommandée pour tous cotons à soie courte ou de longueur moyenne.

Ces deux machines, aussi bien celle à simple que celle à double action, sont munies d'alimenteurs automatés, brevetés, grâce à l'usage desquels une seule personne peut surveiller de quatre à six machines.

UNE MACHINE BREVETÉE À DOUBLE ACTION POUR ÉGRENER À LA MAIN, SYSTÈME MACARTHY.

de 12 pouces (0 m. 30) de largeur, munie de la bielle à contre-poids, brevetée, de Platt et Richardson, et de deux couteaux de travail.

Vitesse du rouleau Macarthy, 50 révolutions par minute (mue par deux hommes); production, 10 livres (4 kilogr. 54) de coton nettoyé par heure.

Chaque machine est munie d'un rouleau à fibre, breveté, de Macarthy, beaucoup plus durable que ceux recouverts de cuir, ou autres substances précédemment en usage. Sa surface est complètement uniforme, et il ne se polit point en fonctionnant, de sorte que la production de la machine se maintient aussi longtemps que dure le rouleau.

La fibre se place sur l'arbre du rouleau en cercles qui se remplacent facilement dès qu'ils sont usés, ou en cas de dommage accidentel au rouleau.

SIMPLE BATTEUR ET MACHINE À RÉUNIR,

avec ventilation en bas, pour faire des rouleaux pour cardes de 40 pouces (1 m. 016) de garniture, la batte munie des piédestaux brevetés de Mohler, avec alimenteur pour étalage et pour nappes.

N.B.—Nous sommes obligés par notre espace restreint de nous servir de cette machine tout à la fois pour briser et finir les nappes, et de nous dispenser d'un ouvreur.

Mais, néanmoins, nous fabriquons aussi des machines à ouvrir, de toutes sortes, avec ou sans machine à réunir.

Nous fabriquons aussi des batteurs à une ou deux battes, avec la ventilation en haut ou en bas, ainsi qu'avec ou sans alimenteurs brevetés, selon la qualité et la quantité de coton à travailler.

No. 1. SIMPLE CARDE EN FER AVEC TAMBOUR.

de 40 pouces (1 m. 016) de garniture, 45½ pouces (1 m. 155) de diamètre; briseur de 9 pouces (0 m. 23) de diamètre; petit tambour de 22 pouces (0 m. 56), cylindre déboureur et déboureur pour ditto, six hérissons et six débouleurs, alimentation au moyen d'un cylindre dans un bain, peigne perfectionné pour peigner le petit tambour, étirage et couvercle pour pots de 36 × 9 pouces (0 m. 92 × 0 m. 23).

Schnelligkeit der Kurbelachse 450 Umdrehungen in der Minute; Vibrationen der Messer 900; Production von reiner Baumwolle 40 bis 75 Pfund.

Empfohlen für alle Baumwolle von kurzer oder mittlerer Länge.

Sowohl die einfach, wie die doppelt wirkenden Egrenirmaschinen sind mit einer selbst wirkenden patentirten Speisevorrichtung versehen, wodurch eine Person 4 bis 6 Egrenirmaschinen vorstehen kann.

EINE PATENTIRTE DOPPELT WIRKENDE MACARTHY HAND-EGRENIRMASCHINE,

12 Zoll breit, versehen mit Platt und Richardson's patentirter balancirter Kurbel und zwei arbeitenden Messern.

Die Schnelligkeit der Macarthy-Walze ist 50 Umdrehungen in der Minute (von zwei Mann getrieben); Production 10 Pfund reine Baumwolle in der Stunde.

Jede Maschine ist mit einer patentirten Macarthy-Faserwalze versehen, welche viel dauerhafter, als die mit Leder bedeckten oder andern früher gebrauchten Materialien ist. Ihre Oberfläche ist durchaus gleichförmig und wird durch die Arbeit nicht glatt, so dass die Production der Maschine unverändert bleibt, so lange als die Walze dauert.

Die Fasern werden auf den Walzenschaft in Ringen gelegt, die leicht wieder substituirt werden können, wenn sie abgearbeitet sind, oder im Falle einer zufälligen Beschädigung der Walze.

EINE EINFACHE SCHLAG- UND WICKELMASCHINE,

mit herabgehendem Zuge, um Wickel für Carden von 40 Zoll Breite zu machen. Ausgerüstet mit Mohler's patentirtem Lager für den Schläger und Speisevorrichtung (Lattentuch) zum Ausbreiten und für Wickel.

Bemerkung.—Wir sind genöthigt, wegen Mangel an Raum, diese Maschine sowohl zum Trennen wie zum Beendigen der Wickel zu gebrauchen und die Lockerungsmaschine (Opener oder Wolf) nicht anzuwenden. Die Opener werden von uns in verschiedener Art gemacht, und das mit oder ohne Wickelmaschine.

Schlagmaschinen werden von uns gleichfalls mit einfachen und doppelten Schlägern und mit Auf- oder Abzug, mit und ohne patentirtem Speiseapparat gemacht, um sie der Qualität und Quantität der zu verarbeitenden Baumwolle anzupassen.

NO. 1. EINE EINFACHE EISERNE CARDE MIT CYLINDER.

40 Zoll am Draht und $45\frac{1}{2}$ Zoll Durchmesser; mit Beiseur 9 Zoll Durch., Abnehmer 22 Zoll, Volant und Putzwalze, 6 Arbeiter und 6 Wender, Speisevorrichtung mit Walze und Platte, verbesserter Kamm um den Abnehmer zu entleeren, Streckwerk und Drehtopfvorrichtung für Töpfe 36" bei 9".

Velocità dell' asse a lieva 450 rivoluzioni per minuto; vibrazioni dei coltelli, 900; produzione di cotone sgranellato, 40 a 75 lbs.

Raccomandata per tutti i cottoni a fibra corta o mezzana.

Ambo le macchine tanto ad azione singola che doppia sono anche fornite di alimentatore automatico patentato, pel' uso del quale una sola persona può attendere a quattro o sei macchine.

MACCHINA DI MACARTHY 'A MANO' A DOPPIA AZIONE (patentata),

larga 12 pollici, fornita dell' asse a lieva bilanciata di Platt e Richardson, e due lame in attività.

Velocità del cilindro Macarthy 50 rivoluzioni per minuto (mosso da due uomini); prodotto 10 lbs. di cotone sgranellato per ora.

Ciascuna macchina è fornita di un 'cilindro Macarthy di 'fibra patentata,' che è molto più durevole di quelli coperti di cuojo o altri materiali anteriormente adoperati. La sua superficie è totalmente uniforme e non diviene liscia coll' uso, cosicché il prodotto della macchina si mantiene fintanto che dura il cilindro.

La fibra vien posta sul cilindro in cerchi che sono facilmente ricollocati quando consunti o in caso di guasto accidentale al cilindro.

BATTITOJO SEMPLICE CON MACCHINA DA FAR CILINDRI,

con ventilatore al di sotto della macchina, per far cilindri per cardì di 40 pollici di guarnitura. Fornita coi pedestalli patentati di Mohler al battente, con alimentatore per spandere e per cilindri.

Nota.—Siamo costretti dalla ristrettezza dello spazio ad adoprare questa macchina come primo e secondo battitojo e senza far uso d' una macchina per aprire. Però siamo costruttori di varie specie di macchine per aprire il cotone, con e senza macchinario per far cilindri.

I battitoji si fanno a uno o a due battenti con volante al di sopra o al di sotto della macchina e con o senza alimentatori patentati da adattarsi alla qualità e quantità del cotone da lavorarsi.

NO. 1. MACCHINA DA CARDARE IN FERRO A UN TAMBURO.

40 pollici di guarnitura, $45\frac{1}{2}$ pollici di diametro, tamburo d' entrata 9 pollici e tamburo d'avanti 22 pollici di diametro, con volante e con 6 travagliatori e 6 pulitori; alimentatore con cilindro e sotto-cilindro concavo, pettine a volante perfezionato per denudare il tamburo d'avanti; con laminatojo ed avvolgitore per tubi di 36 x 9 pollici.

Recommended as a single carder for 40s. counts, medio yarns, and as a breaker card to prepare slivers for the machine to make laps for finishers for 60s. counts.

NO. 2. A SINGLE IRON CARDING ENGINE WITH CYLINDER,

40 inches on wire, 45½ inches diameter, taker-in 9 inches diameter, doffer 22 inches diameter, feeder with roller and dish, one roller and clearer, and 44 self-stripping flats, improved fly comb to strip the doffer, drawbox delivery, and coiler for 36 x 9 inch cans.

This card is recommended for single carding up to 40s. counts, as breaker or finisher up to 80s. counts, and as a breaker card to prepare slivers for the machine to make laps for the combing machine, for 60s. counts and upwards.

A GRINDING MACHINE,

for grinding two rollers at once, fitted with Horsfall's patent traversing disc grinding roller. Also one pair of Horsfall's patent grinding rollers, to grind cylinders, doffers, and self-stripping flats.

A PATENT COTTON COMBING MACHINE,

to comb laps 16 inches wide, fitted with double feed comb; two series of nipping jaws, with intermittent rotary motion; two revolving combs, expanding circular brush, doffing cylinder covered with cards, stripping rollers, and two coilers and can motions.

By this machine successive tufts of cotton are taken from the silver or lap by which it is fed; both ends of each tuft are combed and deposited upon a doffing cylinder in such a manner as to overlap one another and be reunited in a continuous sliver, and afterwards be deposited in a coiling can on one side of the machine, whilst the waste or noil is delivered and coiled in a can on the other side.

These machines are simple in construction, and are generally made with two deliveries each, which occupy the same space in width, and about one half in depth, as a breaker carding engine of 40 inches on wire.

One of such machines is fully capable of combing as much cotton as the 40 inch. card can prepare for it.

Recommended to comb cotton for all counts of yarn.

Cette carte est recommandée pour simple cardage jusqu'au No. 40, pour fils de qualité moyenne, et comme carte en gros, pour préparer le coton pour la carte en fin, jusqu'au No. 60.

NO. 2. SIMPLE CARDE EN FER AVEC TAMBOUR.

de 40 pouces (1 m. 016) de garniture 45½ pouces (1 m. 155) de diamètre, briseur de 9 pouces (0 m. 23) de diamètre, petit tambour de 22 pouces (0 m. 56) de diamètre, alimentation au moyen d'un cylindre dans un bain, un hérissou et déboureur, et 44 chapeaux se débouillant mécaniquement, peigne perfectionné pour peigner le petit tambour, étrépage et couvercle pour des pots de 36 x 9 pouces (0 m. 92 x 0 m. 23).

Cette carte est recommandée pour simple cardage jusqu'au No. 40, comme carte en gros et carte en fin jusqu'au No. 80, et comme carte en gros pour préparer les rubans pour la machine à réunir qui fait les nappes pour la peigneuse, pour les No. 60, et au-delà.

MACHINE À AIGUISER,

pour aiguiser deux cylindres à la fois, munie du disc aiguiser transversal, breveté, de Horsfall. Aussi une paire de cylindres brevetés de Horsfall, pour aiguiser les tambours, les petits tambours et les chapeaux se débouillant mécaniquement.

UNE PEIGNEUSE BREVETÉE POUR LE COTON,

pour peigner des nappes de 16 pouces (0 m. 41) de largeur, munie d'un double peigne alimentaire; deux séries de pinces coupantes avec mouvement rotatoire intermittent; deux peignes rotatoires, brosse circulaire à expansion, petit tambour couvert de cardes, rouleaux débouilleurs, et deux mouvements de couvercles et de pots.

Au moyen de cette machine des touffes successives de coton sont prises de la mèche ou de la nappe qui l'alimente; les deux extrémités de chaque touffe sont peignées et déposées sur un petit tambour de façon à se couvrir l'une l'autre pour être réunies en un ruban continu, et ensuite être déposées dans un pot tournant d'un côté de la machine tandis que le déchet est livré et enroulé dans un autre pot de l'autre côté.

Ces machines sont d'une construction simple, et généralement faites avec deux livraisons chaque, qui occupent le même espace en largeur, et à peu près moitié en profondeur, qu'une carte en gros de 40 pouces (1 m. 016) de garniture.

Une de ces machines est capable de peigner autant de coton que peut lui en préparer la carte de 40 pouces (1 m. 016).

Recommandée comme peignant le coton pour tous numéros de fils.

Empfohlen für einmaliges Cardiren von No. 40, Mittelgarn, und als Vorcarde deren Bänder auf der Doublirmaschine vereinigt Wickel bilden für die Feincarden für No. 60 Garn.

NO. 2. EINE EINFACHE EISERNE CARDE MIT CYLINDER,

40 Zoll am Draht, 45½ Zoll Durchmesser, mit Briseur 9 Zoll Durch., Abnehmer 22 Zoll, Speisevorrichtung mit Walze und Platte, 1 Arbeiter und 1 Wender, und 44 sich selbst abstreifende Deckel, verbesserter Kamm um den Abnehmer zu entleeren, Streckwerk und Drehtopfvorrichtung für Töpfe 36" bei 9."

Diese Carde wird empfohlen für einmaliges Cardiren bis circa No. 40 Garn, als Vor- oder Feincarde für Garne bis No. 80, und als Vorcarde deren Bänder auf der Doublirmaschine vereinigt Wickel bilden für die Kämmmaschine für No. 60 Garne und höher.

EINE SCHLEIFMASCHINE,

um 2 Arbeiter oder Wender zu gleicher Zeit zu schleifen, versehen mit Horsfall's patentirter transversirender Scheibe; gleichfalls ein Paar von Horsfall's patentirten Schleifwalzen zum Schleifen des Cylinders, des Abnehmers und der sich selbst abstreifenden Deckel.

EINE PATENTIRTE BAUMWOLLEN-KÄMM-MASCHINE,

um Wickel von 16 Zoll Breite zu kämmen, mit doppeltem Speisekamm versehen; 2 Systeme von die Baumwolle festhaltenden Laden mit unterbrochener rotirender Bewegung; 2 rotirende Kämmе; ausdehnbare circular Bürste; Abnehmer mit Cardengarnitur überzogen; Putzwalzen und 2 Drehtöpfe.

Durch diese Maschine werden fortwährend Baumwollenbüschel von den Bändern oder Wickeln mit denen dieselbe gespiessen wird abgenommen; beide Seiten eines jeden Büschels werden gekämmt und auf den Abnehmer in einer solchen Weise abgelegt, dass ein Büschel an den andern sich anreihet und welche sodurch zu einem neuen continuirlichen Bande vereinigt werden, welches schliesslich in einen Drehtopf auf der einen Seite der Maschine deponirt wird, während das Kurze oder der Abgang ebenfalls in ein Band vereinigt, auf der andern Seite der Maschine in einen Drehtopf überliefert wird.

Diese Maschinen sind einfach in ihrer Construction und werden gewöhnlich eine jede mit 2 Ablieferungen gemacht, welche denselben Raum in der Breite und circa die halbe Tiefe einer Grobcarde von 40 Zoll Breite einnehmen.

Eine solche Maschine ist vollständig fähig, so viel Baumwolle zu kämmen, als die 40zöllige Carde für sie vorbereiten kann.

Empfohlen, um Baumwolle für alle Nummern von Garn zu kämmen.

Raccomandata per cardare fino al numero 40 filo medio, e come primo cardo fino al No. 60 dove si carda due volte.

NO. 2. MACCHINA DA CARDARE IN FERRO A UN TAMBURIO,

con 40 pollici di guarnitura, 45½ pollici di diametro, tamburo d'entrata 9 pollici, tamburo d'avanti 22 pollici di diametro; alimentatore con cilindro e sotto-cilindro concavo; un travagliatore ed un nettatore e con 44 coperti pulitori automatici; pettine perfezionato a volante per denudare il tamburo d'avanti; con laminatojo ed avvolgitajo per tubi di 36 × 9 pollici.

Questo cardo è raccomandato per cardare fino al No. 40, dove si usa un sol cardo e come primo o secondo cardo fino al No. 80, dove se ne usano due, oppure per preparare il cotone per la macchina a pettinare fino al No. 60 e al di sopra.

MACCHINA PER ARRUOTARE,

per arruotare due cilindri alla volta, fornita del disco traversante patentato di Horsfall. Un cilindro arruotatore ed anche un pajo di cilindri arruotatori patentati di Horsfall per arruotare tamburi, cilindri e coperti automatici.

MACCHINA PER PETTINAR COTONE (PATENTATA),

per pettinare faldelle larghe 16 pollici, fornita di pettine a doppio alimentatore, due serie di morse con moto rotatorio intermittente, due pettini rotatori, spazzola circolare espansiva, cilindro scaricatore coperto di cardi, cilindri denudatori, e due movimenti pegli avvolgitori e i tubi.

Con questa macchina si prendono in successione fiocchi di cotone dal capo o dalla faldella da cui è alimentata; ambedue gli estremi di ciascun fiocco sono pettinati e depositati sul cilindro scaricatore in modo da soprapporsi l'un l'altro, ed esser riuniti in un capo continuo ed esser poi depositati in un tubo avvolgitore da un lato della macchina, mentre il rifiuto o scorcio è consegnato e avvolto in un tubo dall' altro lato.

Queste macchine sono semplici nella costruzione, e sono fatte generalmente con due trasmissioni ciascuna, che occupano lo stesso spazio in larghezza a circa metà in lunghezza di un cardo di 40 pollici sulla guarnitura.

Una di tali macchine è ben atta a pettinare tanto cotone quanto una cardatrice da 40 pollici può preparargliene.

Raccomandata per pettinare cotone per tutti i numeri di filati.

A DRAWING FRAME.

One head of 2 deliveries, four rows of rollers $1\frac{1}{2}$ inch, $1\frac{1}{8}$ inch, $1\frac{1}{2}$ inch, $1\frac{1}{8}$ inch diameters. Leigh's patent tops to front line, common tops to middle and back lines, two coilers and can motions for cans 36 inches \times 9 inches, twelve stop motions for back of frame, and two ditto for front. Improved hinged top flats with endless traversing cloth. Roller traverse motion, arrangement for unweighting rollers.

These frames are made of any number of deliveries to suit the work to be performed, and they have generally three passages in the set, which may be arranged separately so as to be placed one behind the other, or the three passages may be made in one frame as best suits the space available for placing them, the most usual size being three passages of five dls. The weight of cotton drawn varies from 400 lbs. to 800 lbs. per delivery, according to the thickness of hank required.

ONE SLUBBING AND INTERMEDIATE FRAME,

of twenty-four spindles, three rows of rollers $1\frac{1}{4}$ inch, 1 inch, $1\frac{1}{4}$ inch diameter, fitted with Leigh's patent tops to front line, and common tops to middle and back lines. Hinged cap bars and top flats, with endless traversing clearer-cloth, long spindle collars, and flyers, with single centrifugal pressers for $10 \times 5\frac{1}{2}$ inch bobbins. Brass roller, stop motions, and guides for slivers at back of frame to be used when worked as a slubbing frame; and with creel for doubling two ends into one, when used as an intermediate frame, traverse motion which is driven by the lifter reversing motion, web separating plates, indicator with metrical divisions, spindle and bobbin wheels boxed up with iron plates, stop motion for arresting the frame when the bobbins are filled. Break for fly-wheel, arrangements for throwing the bobbin and lifter shafts out of gear, so as to facilitate the doffing of bobbins, and the winding down of the lifter by hand, also for winding the cone drum-strap back after doffing, and for lifting the cone drum from the front of the frame.

These frames, when used as slubbers, are made of various lengths, and numbers of spindles; the number of spindles generally adopted is 64, and the length of the machine 28 feet, including space for driving pulleys.

UN BANC D'ÉTIAGE.

Une tête de deux systèmes, quatre rangs de cylindres de $1\frac{1}{2}$, $1\frac{1}{8}$, $1\frac{1}{2}$, $1\frac{1}{8}$ pouce (0 m. 038, 0 m. 028, 0 m. 038, 0 m. 028) de diamètre. Cylindres de pression, système Leigh, pour le premier rang, cylindres de pression ordinaires pour les rangs du milieu et de derrière, deux mouvements de couvercles et de pots pour des pots de 36×9 pouces (0 m. 92 \times 0 m. 23), douze mouvements d'arrêt pour le derrière du banc, et deux ditto pour le devant. Chapeaux à charnières et à toile sans fin. Mouvement transversal des cylindres, arrangement pour soulever les poids de pression des cylindres.

Ces bancs sont fabriqués de tout nombre de systèmes afin de faciliter le travail à accomplir, et ils ont généralement trois passages dans la série, qui peuvent se disposer séparément de façon à se placer l'un derrière l'autre; ou bien les trois passages peuvent se faire en un seul banc selon qu'il convient le mieux en raison de l'espace disponible pour les placer. La dimension la plus ordinaire est de trois passages de cinq systèmes chaque, le poids de coton étiré variant de 400 à 800 livres (182 kilogs. à 364 kilogs.) par système, selon l'épaisseur de la mèche.

UN BANC À BROCHES EN GROS ET INTER-MÉDIAIRE,

de 24 broches, trois rangs de cylindres de $1\frac{1}{4}$, 1, $1\frac{1}{4}$ pouce de diamètre (0 m. 031, 0 m. 025, 0 m. 031) de diamètre, cylindres de pression système Leigh pour le premier rang, cylindres de pression ordinaires pour les rangs du milieu et de derrière. Chapeaux à charnières et à toile sans fin, longs collets pour les broches, ailettes avec simples presseurs centrifuges pour bobines de $10 \times 5\frac{1}{2}$ pouces (0 m. 25 \times 0 m. 14). Rouleau en cuivre, mouvements d'arrêt, et guides pour rubans au derrière du banc, à employer alors que fonctionnant comme banc à broches en gros et avec ratelier pour doubler deux bouts en un lorsqu'il est employé comme banc intermédiaire; mouvement transversal, qui est conduit par l'élévateur mouvement inverse, plaques de séparation, indicateur à divisions métriques, roues de broches et de bobines encaissées avec plaques de fer, mouvement d'arrêt pour arrêter le banc lorsque les bobines sont remplies. Frein pour volant, mécanisme pour arrêter le jeu des bobines et arbres d'élévation, de façon à faciliter la levée des bobines et la descente de l'élévateur à la main, ainsi que pour détendre la courroie du tambour conique après la levée et pour soulever le cone lui-même du devant du banc.

Ces bancs sont fabriqués de longueurs diverses avec des nombres divers de broches; quand ils sont employés comme bancs à broches en gros, celui généralement adopté étant de 64 broches et la longueur de la machine 28 pieds (8 m. 53), y compris l'espace nécessaire pour les poulies motrices.

EIN STRECKWERK.

Ein Kopf mit 2 Ablieferungen, 4 Reihen Cylinder, $1\frac{1}{2}$ Zoll, $1\frac{1}{2}$ Zoll, $1\frac{1}{2}$ Zoll, und $1\frac{1}{2}$ Zoll Durchmesser. Leigh's patentirte Presscylinder für die erste Reihe, gewöhnliche Cylinder für die mittleren und hinterste Reihe, 2 Drehtopfvorrichtungen für Töpfe 36" bei 9"; 12 Selbstauslösungen für die Rückseite und 12 für die Vorderseite der Strecke. Verbesserte Deckel mit Charnier und einem endlosen rotirenden Tuche, traversirende Bewegung der Bänder, Vorkehrung zur Entlastung der Presscylinder.

Diese Strecken werden mit irgend welcher Anzahl von Ablieferungen gemacht, um sie der auszuführenden Arbeit anzupassen; sie haben gewöhnlich 3 Durchgänge in einer Abtheilung, welche entweder hinter einander aufgestellt werden können, oder die 3 Durchgänge werden in eine Linie placirt, je nach dem vorhandenen Platze, in dem sie so zweckmässig als möglich aufgestellt werden sollen.

Die gewöhnlichste Grösse besteht aus 3 Durchgängen von je 5 Ablieferungen; die Production stellt sich auf 400 bis 800 lbs. per Ablieferung je nach der Nummer des verlangten Bandes.

EINE GROBSPULBANK UND MITTELSPULBANK,

von 24 Spindeln, 3 Reihen Cylinder, $1\frac{1}{4}$ Zoll, 1 Zoll und $1\frac{1}{4}$ Zoll Durchmesser, versehen mit Leigh's patentirten Presscylindern für die erste Reihe, und gewöhnliche Presscylinder für die mittlere und hintere Reihe. Capstangen und Deckel mit Charnier versehen, und endlos rotirendem Tuche; Spindeln mit langer Führung, und Flügel mit einfachem Centrifugal-Arm für Spulen von 10" bei $5\frac{1}{2}$ ". Messingene Führungswalze, Selbstauslösung und Führungsklinken für die Bänder auf der Rückseite der Bank wenn sie gebraucht wird als Grobspulbank; einen Aufsteckrahmen um 2 Luntten in eine zu doubliren, wenn die Bank als eine Mittelspulbank gebraucht wird; Traversführung getrieben von dem Spulenwagen, Schaltvorrichtung, Platten zum Trennen der Lunte, Indicator mit metrischer Theilung, Spindel- und Spulenräder mit eisernen Platten eingeschalt, Ausrückungsapparat um die Bank abzustellen wenn die Spulen voll sind. Bremse für das Schwungrad, Einrichtung um den Spulen und Hubschaft ausser Thätigkeit zu setzen, um das Abnehmen der Spulen und das Zurückbringen des Spulenwagens von Hand zu erleichtern; ebenso um den Konusriemen zurückzubringen nach dem Abnehmen, und um den Konus von der Vorderseite der Bank zu heben.

Diese Spulbänke; wenn sie gebraucht werden als Grobspulbänke, werden von verschiedener Länge und Anzahl Spindeln gemacht; die gewöhnlichste Anzahl Spindeln ist 64 und

LAMINATOJO.

Una testata di due trasmissioni, quattro filari di cilindri di $1\frac{1}{2}$ pollice, $1\frac{1}{2}$ pollice, $1\frac{1}{2}$ pollice, $1\frac{1}{2}$ pollice di diametri. Cilindri di pressione patentati di Leigh nella linea di fronte, e detti comuni nelle linee di dietro, due movimenti di avvolgitori e di tubi da 36 x 9 pollici, dodici movimenti d'arresto per l'indietro dell'intelaiatura e due detti sul davanti. Coperti nettatori a cardini perfezionati con panno traversante perpetuo. Movimento trasverso di cilindro; disposizione per scaricare i cilindri.

Questi telai vengono fatti con qualunque numero di trasmissioni per adattarsi al lavoro da farsi, e hanno generalmente tre passaggi nello assortimento che possono essere disposti separatamente, in modo da poter esser situati l'uno dietro l'altro, o si possono fare i tre passaggi in una intelaiatura come meglio convenga allo spazio utile per situarli.

La grandezza più usuale essendo di tre passaggi di 5 trasmissioni ciascuno, variando il peso del cotone tirato da 400 lbe. a 800 lbe. per trasmissione, secondo la grossezza del filo desiderato.

LAMINATOJO A SPUOLE,

di 24 fusi, tre filari di cilindri, $1\frac{1}{4}$, 1, $1\frac{1}{4}$ pollice di diametro. Fornito di cilindri di pressione di Leigh nella linea di fronte e di cilindri comuni nelle linee di dietro. Coperti di ferro con panno nettatore traversante perpetuo. Colari lunghi per i fusi; ali con singola pressione centrifuga per cannelle di $10 \times 5\frac{1}{2}$ pollici. Cilindro d'ottone, movimenti d'arresto, e guide per i capi all'indietro del telaio, da usarsi quando la macchina è attivata come banco No. 1, o all'ingrosso; e con spalliera per raddoppiare due capi in uno quando usata come banco intermedio, o No. 2. Movimento trasverso dei cilindri, mosso dall'elevatore; movimento di riversione; piastre separanti i capi; indicatore con divisione metrica; le ruote per i fusi e le cannelle incassate con piastre di ferro; movimento d'arresto per fermare la macchina quando le cannelle sono piene. Scarpa pel volano; apparato per spostare le assi dell'elevatore e delle cannelle per indifferenziare lo scaricamento delle cannelle piene e lo svolgimento a mano dell'elevatore, come anche per portar indietro la cigna del tamburo conico dopo lo scaricamento e per sollevare il tamburo conico dall'innanzi del banco.

Queste macchine, quando usati come banco No. 1, o all'ingrosso, sono fatte di varie lunghezze e numeri di fusi; il numero di fusi generalmente adottato è 64 fusi, e la lun-

The thickness of sliver produced, varies from 0.25 to 2.5 hanks per lb.

When used as intermediate frames, they are made of various lengths, numbers of spindles, and for various sizes of bobbins. The average length of frame is about 28 to 30 feet.

The number of spindles generally adopted, is 80 to 120, according to the lift of the bobbin, and the fineness of hank roving to be made, which varies from $1\frac{1}{2}$ to 4 hanks per lb., the lift of the bobbins being 8, 9, or 10 inches.

A ROVING FRAME OF 84 SPINDLES,

three rows of rollers, $1\frac{1}{4}$ inch, 1 inch, $1\frac{1}{4}$ inch diameter, fitted with Leigh's patent tops to front line, and common tops to middle and back lines. Hinged cap bars and top flats with stationary cloths, spindle collars $5\frac{1}{2}$ inches long, and flyers with double centrifugal pressers for $7 \times 3\frac{3}{8}$ inch bobbins, iron creels fitted with pot steps for doubling two ends into one. Traverse motion which is driven by the lifter reversing motion. Indicator with divisions in English hanks. Spindle and bobbin wheels cased with iron front and back, and wood tops. Iron bobbin boxes at back of frame, friction reversing motion, Platt and Hartley's patent stop motion for arresting the frame when the bobbins are filled, break for fly wheel, arrangements for throwing the bobbin and lifter shafts out of gear, so as to facilitate the doffing of bobbins, and the winding down of the lifter by hand, also an arrangement for winding the cone drum strap back after doffing, and for lifting the cone drum from the front of the frame.

Roving frames are also made of various lengths, numbers of spindles, sizes and description of bobbins, to suit the quality of work to be done and the available space for fixing them.

The following may be taken as the sizes generally adopted under each class, viz.:

128 spindles, $7 \times 3\frac{3}{8}$ inch bobbins, double centrifugal pressers, to stand in 28 ft. $1\frac{1}{2}$ inches, to make rovings from 3 to 7 hanks per lb.

140 spindles, 6×3 inch bobbins, double and single centrifugal pressers, to stand in 28 ft. 5 inches, and to make rovings from 6 to 12 hanks per lb.

164 spindles, $5 \times 2\frac{1}{2}$ inch bobbins, soft bobbins, to stand in 30 ft. $1\frac{1}{2}$ inches, and to make rovings from 10 to 20 hanks per lb.

L'épaisseur du ruban produit varie de 0.25 à 2.5 hanks par livre.

Quand on s'en sert comme de bancs intermédiaires, ils sont également faits de longueurs et nombres de broches divers, et pour différentes dimensions de bobines. Les longueurs moyennes du banc sont alors d'environ de 28 à 30 pieds (8 m. 53 à 9 m. 14).

Le nombre de broches généralement adopté est de 80 à 120, selon la hauteur de la bobine et la finesse de la mèche à faire, qui varie de $1\frac{1}{2}$ à 4 hanks à la livre, la hauteur de la bobine étant de 8, 9 ou 10 pouces (0 m. 204, 0 m. 229, 0 m. 254).

UN BANC À BROCHES EN FIN DE 84 BROCHES,

trois rangs de cylindres $1\frac{1}{4}$, 1, $1\frac{1}{4}$ pouce (0 m. 031, 0 m. 025, 0 m. 031) de diamètre, cylindres de pression système Leigh pour le premier rang, cylindres de pression ordinaires pour les rangs du milieu et de derrière, chapeaux à charnières avec toile fixe, collets de broches de $5\frac{1}{2}$ pouces (0 m. 14) de longueur et ailettes avec doubles presseurs centrifuges pour bobines de $7 \times 3\frac{3}{8}$ pouces (0 m. 178 \times 0 m. 085), rateleurs en fer arrangés pour doubler deux bouts en un. Mouvement transversal conduit par le mouvement de l'élevateur en sens inverse. Indicateur avec divisions en hanks anglais. Roues de broches et de bobines encaissées en plaques de fer, devant et derrière, et le dessus en bois. Boîtes en fonte pour bobines au derrière du banc. Mouvement en sens inverse à frottement, breveté de Platt et Hartley, mouvement d'arrêt pour arrêter le banc quand les bobines sont pleines, frein pour volant, mécanisme pour arrêter le jeu des bobines et arbres d'élévation de façon à faciliter la levée des bobines, et le déroulement de l'élevateur à la main, ainsi que pour détendre la courroie du cône après la levée, et pour soulever le cône lui-même du devant du banc.

Les bancs à broches en fin sont aussi fabriqués de diverses longueurs et de divers nombres de broches, et avec bobines de différentes dimensions et sortes, afin de s'adapter à la qualité de travail à exécuter et à l'espace dont on peut disposer pour les établir.

Les dimensions suivantes peuvent être prises comme celles généralement adoptées dans chaque classe, savoir:

128 broches, bobines de $7 \times 3\frac{3}{8}$ pouces (0 m. 178 \times 0 m. 089), doubles presseurs centrifuges, de 28 pieds $1\frac{1}{2}$ pouce de longueur, pour faire des mèches de 3 à 7 hanks par livre.

140 broches, bobines de 6×3 pouces (0 m. 152 \times 0 m. 075), doubles et simples presseurs centrifuges, de 28 pieds 5 pouces de longueur, pour faire des mèches de 6 à 12 hanks par livre.

164 broches, bobines de $5 \times 2\frac{1}{2}$ pouces (0 m. 127 \times 0 m. 063). Bobines molles, de 30 pieds $1\frac{1}{2}$ pouce de longueur, pour faire des mèches de 10 à 20 hanks par livre.

die Länge einer solchen Maschine ist 28 Fuss, die Triebrollen inbegriffen.

Die Stärke der hierauf erzeugten Lanten variirt von 0·25 bis 2·5 Hanks per Pfund.

Wenn dieselben als Mittelspulbänke gebraucht werden so werden sie ebenfalls von verschiedener Länge, Spindelzahl, und für verschiedene Spulengrößen gemacht. Die gewöhnlichste Länge der Bank ist circa 28 bis 30 Fuss.

Die meist gebräuchliche Spindelzahl ist 80 bis 120, je nach der Höhe der Spule und der Feinheit des zu erzeugenden Vorgespinnstes, welches zwischen $1\frac{1}{2}$ bis 4 Hanks per lb. variirt, die Höhe der Spule ist 8, 9 oder 10 Zoll.

EINE FEINSPULBANK VON 84 SPINDELN,

3 Reichen Cylinder, $1\frac{1}{4}$ Zoll, 1 Zoll und $1\frac{1}{4}$ Zoll Durchmesser, ausgerüstet mit Leigh's patentirten Presscylindern und gewöhnlichen Cylindern für die mittlere und hintere Reihe. Capstangen und Deckel mit Charnier versehen und stationärem Tuch, Spindle-Führung $5\frac{1}{2}$ Zoll lang, und Flügel mit doppeltem Centrifugal-Arm für 7" bei $3\frac{3}{4}$ " Spulen, eiserner Aufsteckrahmen mit irdenen Spulenpfannen versehen, um 2 Lanten in eine zu doubliren. Traversbewegung ist getrieben durch den Heber der Schaltvorrichtung. Indicator in englische Hanks eingetheilt. Spindel- und Spulenräder, auf 2 Seiten mit eisernen Platten eingeschalt und mit Holz oberhalb. Eiserner Spulenkasten auf der Rückseite der Bank, Frictions-Umsteuerung Platt und Hartley's Patent, Auskehrvorrichtung um die Bank abzustellen wenn die Spulen gefüllt sind, Bremse für das Schwungrad, Einrichtung um den Spulen und Hubschaft ausser Thätigkeit zu setzen um das Abnehmen der Spulen und das Zurückbringen des Spulenwagens von Hand zu erleichtern; ebenso um den Konusriemen nach dem Abnehmen zurückzubringen und um den Konus von der Vorderseite der Bank zu heben.

Feinspulbänke werden ebenfalls von verschiedener Länge, Anzahl der Spindeln, Größe und Art der Spulen gemacht, um sie der Qualität des beabsichtigten Productes und dem verwendbaren Raume anzupassen.

Man kann das Folgende als die gewöhnlich adoptirte Größe einer jeden Klasse annehmen, nämlich:

128 Spindeln, 7" bei $3\frac{3}{4}$ " Spulen, doppelte, Centrifugal-Arme, Länge der Bank 28' $1\frac{1}{2}$ ", um Vorgespinnst von 3 bis 7 Hank per Pfund zu produziren.

140 Spindeln, 6" bei 3" Spulen, doppelte und einfache Centrifugal-Arme, Länge der Bank 28' 5" und um Vorgespinnst von 6 bis 12 Hank per Pfund zu produziren.

164 Spindeln, 5" bei $2\frac{1}{2}$ " Spulen; weiche Spulen, Länge der Bank 30' $1\frac{1}{2}$ ", und um Vorgespinnst von 10 bis 20 Hank per Pfund zu produciren.

ghezza della macchina 28 piedi, incluso lo spazio pella puleggia comunicante noto.

La grossezza dei capi prodotti varia dal No. 0·25 al No. 2·5, numero inglese.

Quando usati come telai intermedi sono fatti di varie lunghezze, numeri di fusi e per varie grossezze di cannelle. La lunghezza media di telaio è 28 a 30 piedi.

Il numero di fusi generalmente adottato è da 80 a 120, secondo la portata della cannella e la finezza del filo da farsi, che varia da $1\frac{1}{2}$ a 4 matasse per libbra, la portata della cannella essendo da 8, 9, 10 pollici.

BANCO A SPUOLE FINO, DI 84 FUSI,

tre ordini di cilindri di $1\frac{1}{4}$, 1, $1\frac{1}{4}$ pollice di diametro; forniti con cilindri di pressione patentati di Leigh nella linea di fronte e comuni nelle linee di dietro. Coperti nettatori in ferro con panni stazionari; collari per fusi lunghi $5\frac{1}{2}$ pollici; ali con doppia pressione centrifuga per cannelle da 7 × $3\frac{3}{4}$ pollici. Spalliera in ferro con cuscinetti in porcellana per raddoppiare due capi in uno. Movimento trasverso per cilindri, mosso dall' elevatore. Indicatore con divisioni in matasse inglesi. Ruote di fusi e cannelle incassate in ferro innanzi e indietro, e di sopra in legno. Casette da cannelle in ferro sull' indietro del telaio, movimento invertente a frizione, patente di Platt e Hartley, movimento d' arresto per fermare il telaio quando le cannelle sono piene, scarpa pel volano, apparato per spostare l' asse delle cannelle e della corda, acciò facilitare lo scaricamento delle cannelle e l' avvolgimento a mano della corda, ed anche un apparato per svolgere la cigna del tamburo conico dopo lo scaricamento, e per sollevare il tamburo conico dall' innanzi del telaio.

Queste macchine si fanno anche di varie lunghezze, numeri di fusi, grossezze e genere di cannelle, adattabili alla qualità del lavoro da farsi ed allo spazio disponibile ove fissarli.

Le seguenti si possono prendere come le grandezze generalmente adottate per ciascuna classe, cioè:

128 fusi, cannelle 7 × $3\frac{3}{4}$ pollici, doppi pressori centrifugi da stare in 28 piedi e $1\frac{1}{2}$ pollici per far spuoie da 3 a 7 matasse per libbra.

140 fusi, cannelle 6 × 3 pollici, doppi e singoli pressori centrifugi da stare in 28 piedi e 5 pollici e far spuoie da 6 a 12 matasse per libbra.

164 fusi, cannelle 5 × $2\frac{1}{2}$. Spuoie senza pressione da stare in 30 piedi e $1\frac{1}{2}$ pollici e da far spuoie da 10 a 20 matasse per libbra.

A SELF-ACTING MULE FOR SPINNING COTTON,

of 252 spindles, $1\frac{3}{8}$ distance, $16\frac{1}{2}$ inch spindles, three rows of rollers, plate bolsters and foot-steps in one half, and pipe bolsters and foot-steps in the other half, iron creels for single roving, steel roving guides, back shafts and driving apparatus, conical friction pulleys for driving the cam shaft and taking-in shafts, double twist band arrangement, faller locking, and long coping motion with double plates, from which the coping rail may be taken out and replaced at any stage of the cop's progress, without disturbance of its working position. Patent governor or cop regulator, for adjusting the winding-on motion to the formation of the cop, which is perfectly automatic in its action. Improved construction of square and carriage coupling, by which the square and carriage are more firmly and accurately connected.

Drawing-out motion with an arrangement for stopping in case of obstruction to free traverse of carriage, thereby preventing break-age of bands, &c.

These mules are made of various numbers and distances of spindles up to 1,200 each, and to suit any position of main driving shaft in the building to contain them.

A SELF-ACTING MULE FOR SPINNING WOOL.

150 spindles, 2-inch distance, 18-inch spindles, one line of plain bottom rollers $1\frac{1}{2}$ inch, and tops $2\frac{1}{4}$ inches diameter, fitted with surface drums to spin from condensor bobbins of various lengths, also with a movable creel to spin when desired from slubbing bobbins, variable slow and fast speeds, spindle stopping motion, twisting-in motion, stop motion for carriage. Patent governor for regulating the winding-on motion, conical friction pulleys for cam shaft, and taking-in shafts. Faller locking and long coping motion, with rail on double plates, and slubbing delivery motion connected to cam shaft.

These mules are sometimes made with 600 spindles, but the most desirable length is 350 to 400 spindles.

A POWER LOOM TO WEAVE PLAIN AND FANCY WOOLLEN CLOTHS.

Of any pattern up to 28 shafts jacquard. 106 inches Reed space, fitted with balance taking-up motion. Reversing motion for unweaving without throwing shuttle out of box. Easing

UN MÉTIER À FILER AUTOMATE, POUR FILER LE COTON,

de 252 broches, de $1\frac{3}{8}$ pouce (0 m. 035) de distance, broches de $16\frac{1}{2}$ pouces (0 m. 419), trois rangs de cylindres collets en plaques et crapaudines pour la moitié et collets séparés, et crapaudines pour l'autre moitié, rateliers en fer pour simple mèche de banc en fin, guides-fils d'acier, arbres à maintenir le chariot et contre-arbres, poulies coniques de friction pour mouvoir l'arbre de temps et l'arbre des poires, arrangement des cordes de torsion double, mouvement pour l'arrêt des baguettes, long mouvement pour faire les cannettes avec doubles plaques d'où le coping rail peut être enlevé et remplacé pendant la formation de la cannette sans dérangement de sa position travaillante. Régulateur breveté, pour l'ajustement du mouvement de renvidage à la formation de la cannette, lequel est parfaitement automatique. Construction améliorée du carré et de la partie du chariot qui s'y adapte, qui permet d'obtenir plus de solidité et d'exactitude.

Mouvement de sortie, avec un mécanisme d'arrêt en cas d'obstruction, pour dégager la traverse du chariot, empêchant ainsi la rupture des cordes, etc.

Ces métiers sont faits de divers nombres de broches à diverses distances, jusqu'à 1,200 chaque, et de façon à s'adapter à toute position du principal arbre moteur dans le bâtiment.

UN MÉTIER À FILER AUTOMATE, POUR FILER LA LAINE,

de 150 broches, de 2 pouces (0 m. 05) de distance, broches de 18 pouces (0 m. 456), un rang de cylindres unis pour le bas de $1\frac{1}{2}$ pouce (0 m. 038) de diamètre, et les cylindres de pression de $2\frac{1}{4}$ pouces (0 m. 057) de diamètre avec cylindres de surface pour filer avec des bobines de condenseur de longueurs différentes, avec un ratelier mobile pour filer quand on le désire avec des cannettes, mouvements vite et lent variables, mouvement d'arrêt pour les broches, mouvement de torsion, mouvements d'arrêt pour le chariot. Régulateur breveté pour régler le renvidage, poulies coniques de friction, pour mouvoir l'arbre à cames et les arbres pour la rentrée du chariot. Jeu des baguettes et mouvement pour régler la forme des cannettes avec coping rail sur deux plaques et motion en connexion avec l'arbre à cames pour la sortie des mèches.

Ces métiers sont quelquefois construits avec 600 broches, mais la longueur la plus désirable est de 350 à 400 broches.

UN MÉTIER À TISSER MÉCANIQUEMENT, POUR TISSER DES ÉTOFFES UNIES ET FAÇONNÉES EN LAINE.

De tout modèle jusqu'à 28 jacquards, de 106 pouces de peigne, muni d'un mouvement à enrouler l'étoffe à contre-poids. Mouvement inverse pour dérouler l'étoffe sans enlever la

EINE SELBSTTHÄTIGE BAUMWOLLEN- SPINNMASCHINE,

von 252 Spindeln, $1\frac{3}{8}$ " Spindeldistanz, Spindel-länge $16\frac{1}{2}$ ", 3 Reihen Cylinder, Halslager-Platten und Pannan auf der einen Hälfte und Röhrenlager und Pannan auf der andern Hälfte, eiserner Aufsteckrahmen für einfache Vorgesponnt, stählerne Vorgesponnt-Leiter, hintere Wellen und Treibapparat, conische Frictions-Rollen um den Camschaft und Einzugschaft in Bewegung zu setzen, Einrichtung für ein doppeltes Zwirnseil, Aufwindfalle und lange Aufwindbewegung mit doppelten Formplatten von welchen die Leitschiene herausgenommen und wieder eingelegt werden kann bei irgend welcher Bildungsstufe des Kötzers, ohne die Arbeit zu unterbrechen. Patentirter Kötzerregulator der die Aufwindung zur Bildung des Kötzers regulirt, welche somit gänzlich automatisch in ihrer Bewegung wird. Verbesserte Construction des Wagenmittelstückes und der Wagenverbindung, durch welche das Wagenmittelstück und der Wagen fester und genauer verbunden werden.

Die Auszugbewegung mit einer Vorrichtung um den Wagen anzuhalten im Falle eines Hindernisses in der ausfahrenden Bewegung, wodurch das Brechen der Bänder verhindert wird etc.

Diese Spinnmaschinen werden für verschiedene Anzahl und Entfernung der Spindeln bis zu 1,200 eine jede gemacht, und auch für jede Lage des Haupttriebschafes in dem Gebäude, wo sie aufgestellt werden sollen.

EINE SELBSTTHÄTIGE WOLLENSPINNMASCHINE.

150 Spindeln, 2" Spindeldistanz, Spindel-länge 18", eine Reihe von glatten Cylindern $1\frac{1}{2}$ Zoll und gleichen Presscylindern $2\frac{1}{4}$ Zoll Durchmesser, ausgestattet mit Trommeln um von Condenserbobbinnen von verschiedener Länge zu spinnen, ebenso mit einem beweglichen Aufsteckrahmen um, wenn gewünscht, von Slubbingbobbinnen zu spinnen, veränderliche langsame und schnelle Geschwindigkeit, Vorrichtung zum Anhalten der Spindeln, Vorrichtung zum Anhalten des Wagens. Patentirter Regulator um die Aufwindbewegung zu reguliren, conische Frictions-Rollen für den Cam- und Einzugschaft. Aufwindfalle und lange Aufwindbewegung, mit Leitschiene auf doppelten Formplatten und Slubbingbewegung, verbunden mit dem Camschaft.

Diese Spinnmaschinen werden bisweilen mit 600 Spindeln angefertigt; die wünschenswertheste Länge jedoch ist 350 bis 400 Spindeln.

EIN KRAFTSTUHL, UM GLATTES UND GEMUSTER- TES WOLLENTUCH ZU WEBEN,

für jedes Muster bis zum 28schäftigen Jacquard, 106 Zoll Breite im Blatte, versehen mit balancirter Aufwickelbewegung. Umsteuerung zum Auslösen eingeschossener Faden, ohne die Schutze aus der Lade zu nehmen; Regulirung um die Spannung des Garnes zu mindern,

FILANDA AUTOMATICA PER FILAR COTONE,

di 252 fusi, $1\frac{3}{8}$ " distanza, fusi $16\frac{1}{2}$ pollici, tre ordini di cilindri; cuscinetti per fusi, in piastre per una metà e tubulari per l'altra metà. Spalliera in ferro per una cannella; asse di dietro e contr'albero comunicante moto, puleggie coniche a frizione per dar moto al 'camshaft,' e al ritornacarro, doppia fune di torzione, movimento dell'abbassatore del filo e dello agomitamento, con doppie piastre dalle quali la riga può esser tolta e rimessa a qualunque stadio del progresso del gomito senza disturbarne la posizione operante. Regolatore patentato o regolatore del gomito per aggiustare il movimento di avvolgimento alla formazione del gomito che nella sua azione è perfettamente automatico. Costruzione perfezionata degli accoppiamenti delle squadre e delle carriole per cui la squadra e la carriola sono connesse più solidamente e più accuratamente.

Movimento per arrestare il cammino del carro in caso di ostruzione, e quindi impedire la rottura delle corde, ecc.

Queste filande sono fatte di vari numeri e distanze di fusi fino a 1,200, e adattabili a qualunque posizione dell'asse principale comunicante moto nell'edificio che deve contenerle.

FILANDA AUTOMATICA PER FILAR LANA.

150 fusi, 2 pollici distanza, fusi di 18 pollici, una linea di cilindri lisci di $1\frac{1}{2}$ pollice e cilindri di pressione di $2\frac{1}{4}$ pollici di diametro; fornita di tamburi per filare dalle cannelle del cardo condensatore di varie lunghezze, ed anche con spalliera mobile per filare quando si voglia da gomiti o cannelle di un banco e spuoie. Velocità variabile, lenta o accelerata; movimento per arrestare i fusi, per ritorcere, per arrestare il carro. Regolatore patentato per governare il movimento d'avvolgimento, puleggie coniche a frizione per dar moto al 'camshaft' e al ritornacarro. Apparato per abbassare il filo e per formare il gomito con riga lunga e su doppie piastre; il movimento dei cilindri regolato dal 'camshaft.'

Queste filande si fanno qualche volta con 600 fusi, ma la lunghezza preferibile è di 350 a 400 fusi.

TELAIO MECCANICO PER TESSERE PANNO DI LANA SEMPLICE E FIGURATO,

Jacquard, di qualunque specie fino a 28 assi, 106 pollici spazio di pettine, forniti di movimento elevatore bilanciato. Movimento invertente per disfare il tessuto senza togliere la spola. Movimento di alleviamento per slentare il filo quando si apre l'ordito. Scarpa a

motion to relieve the yarn when the shed opens. Self-regulating break for weighting yarn beam, double capped self-acting temples. Brass pickers, and breast beam covered with brass.

A wrap drum.

A wrap reel and scales.

Cotton scales.

Card nailing-on tackle.

Box of rollers, spindles, flyers, &c.

Samples of cotton and woollen prepared and spun by machinery made by PLATT BROS. & Co.

A ring and traveller throstle, 48 spindles, distance $2\frac{3}{4}$ inches, lift 4 inches.

Owing to the limited space at our disposal, we are obliged to forego the exhibition of carding engines and other machines for the preparation and spinning of woollen and worsted goods, as made by us. For information respecting these, and for prices, apply to

Messrs. PLATT BROTHERS & Co., Class 55, Paris Exhibition, and Hartford Works, Oldham.

Messrs. De Jersey & Co., Manchester.

Messrs. E. Nathan & Sington, Manchester.

Mr. L. Knoop, Moscow and St. Petersburg.

Messrs. E. Nathan & Sington, Avenue de l'Impératrice, Rouen.

Mr. W. W. Derham, Leipsic.

Mr. F. E. Schoch, Vienna and Zurich.

Mr. James Sykes, Barcelona.

Messrs. Robinson Newton and Co., Bombay.

navette de la boîte. Mouvement pour soulager les fils quand le pas s'ouvre. Frein automate pour peser l'ensouple. Double temples mécaniques, battants de cuivre, et cylindre de devant couvert de cuivre.

Dévidoir.

Dévidoir et balance.

Balances pour peser le coton.

Garniture d'outils pour monter les garnitures des cardes.

Caisse contenant des cylindres, des broches et des ailettes.

Échantillons de coton et de laine préparés et filés sur des machines sortant des ateliers de PLATT FRÈRES ET CIE.

Un métier à filer continu, avec anneau et voyageur, de 48 broches, de $2\frac{3}{4}$ pouces (0 m. 07) de distance et de 4 pouces (0 m. 101) de course.

Par rapport à l'espace limité que nous avons à notre disposition, nous sommes obligés d'abandonner l'idée d'exposer les cardes et autres machines (pour préparer et filer la laine cardée et la laine peignée) qui sont construites par nous. Pour renseignements et prix de ces machines s'adresser à

Messieurs PLATT BROTHERS & Co., Classe 55, Exposition à Paris, ou Hartford Works, Oldham.

Messieurs De Jersey et Cie., Manchester.

Messieurs E. Nathan et Sington, Manchester.

Monsieur L. Knoop, Moscou et St.-Petersbourg.

Messieurs E. Nathan et Sington, Avenue de l'Impératrice, Rouen.

Monsieur W. W. Derham, Leipsic.

Monsieur F. E. Schoch, Vienna et Zurich.

Monsieur James Sykes, Barcelona.

Messieurs Robinson Newton et Cie. Bombay.

wenn die Kette sich öffnet; selbstthätige Kettenbaumbremse; doppelt becappte selbstwirkende Spannvorrichtung. Messingene Vögel und Brustbaum mit Messing belegt.

Ein Probirhaspel.

Ein Probirhaspel und Wage.

Eine Baumwollenwage.

Werkzeuge zum Aufnageln der Cardengar-

nitur.

Ein Glaskasten mit Cylindern, Spindeln und Flügeln.

Muster von Baumwolle und Wolle preparirt und gesponnen auf Maschinen verfertigt von GEBRÜDER PLATT & Co.

Eine Drosselspinnmaschine, 48 Spindeln; Spindeldistanz $2\frac{3}{4}$ Zoll, Hub 4 Zoll.

Wegen dem beschränkten Platze der zu unserer Verfügung stund, sind wir genöthiget gewesen die Anstellung von Carden und andern Maschinen wie sie von uns angefertigt werden zum Prepariren und Spinnen von Woll und Kammwollzeugen zu unterlassen. Um Erkundigungen betreffend derselben und für Preise wende man sich an:

Herren GEBRÜDER PLATT & Co., Klasse 55, Pariser Ausstellung, oder Hartford Works, Oldham.

Herren De Jersey & Co., Manchester.

Herren E. Nathan & Sington, Manchester.

Herrn L. Knoop, Moskau und St. Petersburg.

Herren E. Nathan & Sington, Avenue de l'Impératrice, Rouen.

Herr W. W. Derham, Leipzig.

Herrn F. E. Schoch, Wien und Zürich.

Herr James Sykes, Barcelona.

Herren Robinson Newton & Co., Bombay.

regolamento automatico per caricare il subbio, tempie a doppia callotta automatiche. Battispoli in ottone. Battispetto coperto d'ottone.

Un tamburo per far saggi dalle cannelle.

Un' aspa per dividere con bilancia.

Bilancie da cotone.

Attrezzi per inchiodare i cardì.

Cassa di cilindri, fusi e ali.

Campioni di cotone e lana preparati e filati da macchine costrutte dai FRATELLI PLATT & CIA.

Una filanda continua senz' ali, di 48 fusi, distanza $2\frac{3}{4}$ ", portata 4".

La troppo ristrettezza dello spazio a nostra disposizione ci rende impossibile l' esposizione di cardì ed altre macchine per preparare e filare lana e lana pettinata, da noi costrutte. Per informazioni riguardante queste macchine e loro prezzi, dirigersi a

PLATT BROTHERS & CIA., Classe 55, Esposizione di Parigi, e Hartford Works, Oldham.

Signor De Jersey & Cia., Manchester.

Signori E. Nathan & Sington, Manchester.

Signor L. Knoop, Moscovia e St. Petersburg.

Signori E. Nathan & Sington, Avenue de l'Impératrice, Rouen.

Signor W. W. Derham, Lipsia.

Signor F. E. Schoch, Vienna e Zurigo.

Signor James Sykes, Barcelona.

Signori Robinson Newton & Cia., Bombay.

CLASS LVI.

IRVIN & SELLERS, *Peel Hall Works, Preston ; and Park Wharf Mills, Kidderminster.*

Manufacturers of Bosses, Shuttles, Bobbins, &c., of every description used in Spinning and Weaving Cotton, Flax, Wool, and Silk ; Dealers in General Mill Furnishings.

Fabricants de Rouleaux en bois, de Navettes, de Bobines, etc., de toutes les espèces dont on se sert dans la Filature et le Tissage du Coton, du Chanvre, de la Laine et de la Soie.

Fabricanten aller Arten Bückeln, Weberschützen, Spulen etc., welche in der Spinnerei und Weberei von Baumwolle, Hanf, Wolle und Seide gebraucht werden ; liefern auch alle in's Mühlenfach schlagende Artikel.

This Firm obtained the Prize Medal at the Exhibition, 1865, for 'general excellence of articles in wood used in manufactures,' and, as importers of Boxwood, has a resident agent in Constantinople, and warehouses in Liverpool, and is thus enabled to supply all descriptions of Turkey boxwood at importers' prices.

They are the largest house of the kind in the Three Kingdoms ; of upwards of 60 years' standing ; have extensive and improved machinery at their Preston Works, where they cut up for sale all kinds of boxwood, rules, shuttle-blocks, tool handles, &c. ; also they manufacture every description of shuttles, bobbins, bosses, and other articles in wood used in spinning and weaving all fibres.

Owing to the increased demand for their goods for export, they have lately been unable to supply their friends with sufficient promptitude, but are now erecting a large mill at their timber wharf on the Worcestershire Canal, from which they have a private branch at Kidderminster ; this being in the midst of one of the finest timber districts in England, they trust by this increased facility to be enabled to execute promptly extensive orders with first-class goods at the lowest possible prices.

Agent—R. S. PARKER, 69 Rue de Béthune, Lille (Nord), France.

Agent—W. LANCASTER, Canstatt, Würtemberg.

Négociants en bois de buis, ont obtenu la Médaille à l'Exposition Internationale en 1865 'pour l'excellence générale d'articles en bois employés dans les manufactures.' Cette maison, pour faciliter l'importation du bois de buis, a un représentant à Constantinople, et des magasins à Liverpool ; elle est ainsi en état de fournir toutes les espèces de bois de buis de Turquie.

Cette maison, qui date de plus de soixante ans, est la plus grande de la Grande-Bretagne dans ce genre. MM. IRVIN ET SELLERS ont une grande quantité de machines perfectionnées à Preston, pour découper toutes les espèces de bois pour en faire des règles, des navettes, des manches d'outils, et les blocs en buis employés pour

faire les navettes, etc. Aussi fabriquent-ils toute espèce de navettes, de bobines, de rouleaux et d'autres articles en bois employés dans la filature et le tissage.

A cause de nombreuses demandes de marchandises pour l'exportation qui leur ont été adressées, ils n'ont pu dernièrement servir leurs clients avec une promptitude suffisante, mais ils font bâtir en ce moment une grande fabrique à leur quai de bois situé sur le canal de Worcestershire dont ils ont une branche particulière à Kidderminster. Cette fabrique est située dans une des régions les mieux boisées de l'Angleterre, et ils espèrent, grâce à ce nouvel établissement, pouvoir exécuter promptement et aux prix les plus modérés, les ordres qui leur seront adressés.

Importeure von Buchsbaumholz, wurden mit der Preis-Medaille bei der internationalen Ausstellung von 1865 gekrönt, 'für allgemeine Vortrefflichkeit der Artikel in Holz, welche in der Manufactur gebraucht werden.' Diese Firma, um die Einfuhr von Buchsbaumholz zu erleichtern, hält einen ansässigen Agenten in Constantinopel und Lager in Liverpool ; auf diese Weise sind sie in den Stand gesetzt, alle Arten Türkisches Buchsbaumholz zu den Einfuhrpreisen zu liefern.

Es ist das bedeutendste Haus in diesem Fache in Grossbritannien und besteht seit sechszig Jahren. Herren IRVIN & SELLERS haben in ihrer Fabrik in Preston eine grosse Anzahl vervollständigter Maschinen, um jede Sorte Buchsbaumholz für Regeln, Weberschützen, Blöcke, Werkzeugsgriffe zuzuschneiden.

In Folge der vielen auswärtigen Aufträge, welche sie erhalten haben, waren sie nicht im Stande, die Lieferzeit genau einzuhalten ; aber sie errichten jetzt eine neue Fabrik in der Nähe ihrer Holzlager, am Canal von Worcestershire gelegen, von welchem sie eine Privat-Branche in Kidderminster haben. Da diese Fabrik in einer der besten Nutzholzplätze Englands gelegen ist, so hoffen sie, mit den dargebotenen Vortheilen alle Aufträge prompt und zu den niedrigsten Preisen auszuführen.

LEEMING, JOHN, & SON, *North Holme Mills, Bradford, Yorkshire, England; Machinists, Iron Founders, &c., established 1807.*

(*By Her Majesty's Royal Letters Patent.*)

Makers of every description of Worsted Machinery, for Preparing, Spinning, Twisting, &c.; also Inventors and Patentees of numerous improvements in Looms for Weaving Plain and Fancy Goods.

Constructeurs de toutes espèces de Machines pour Filature de Laine à Préparer, Filer, Retordre, etc.; aussi Inventeurs Brevetés de nombreux perfectionnements en Métiers à Tisser les Étoffes Unies et de Fantaisie.

Fabricanten jeder Art Maschinerie zum Wollespinnen, Zurichten, Spinnen, Drehen etc.; Erfinder und Patenteigenthümer von zahlreichen Verbesserungen in Webestühlen von glatten und gemusterten Stoffen.

Comprising:—

PATENT CIRCULAR BOX MOVEMENTS for bringing into operation any shuttle which may be desired in the series, and will throw any required number of even picks with any shuttle (THIS LOOM WE EXHIBIT).

PATENT CIRCULAR BOX LOOM for throwing the next shuttle to the one last in operation; this loom may be safely run at a higher speed than any other circular box loom; attached also is a patent brake, which stops the loom with the shed open without the usual strain upon any essential part (EXHIBITED).

PATENT JACQUARD of simple construction attached to a plain loom, which enables us to weave ornamented fancy goods; at the same time effecting a large saving in the ornamenting material, also an increased rate of production, and a greatly extended field for design (EXHIBITED).

PATENT INDEX MACHINE for working 20 healds or shafts (or any less number); it will divide the warp, that is, lift both up and down, or lift all one way, and will also lift the back healds or shafts higher than the front, which is a great relief to the warp (ALSO EXHIBITED).

We are also PATENTERS AND MAKERS OF LOOMS for weaving PICK-AND-PICK.

HEAVY SERGE LOOMS.

DAMASK AND TABLE-COVER LOOMS.

LINEN LOOMS.

WOOLLEN LOOMS FOR LIGHT AND HEAVY CLOTHS.

HEAVY LOOMS SPECIALLY ADAPTED FOR WEAVING COCOA-NUT FIBRE.

Comprenant:—

MOUVEMENTS DE BOÎTE CIRCULAIRE, BREVETÉS, pour amener en opération toute navette qu'on désire dans la série, et jetteront tout nombre requis de duites égales avec toute navette (CE MÉTIER EST EXPOSÉ).

MÉTIER À BOÎTE CIRCULAIRE, BREVETÉ, pour jeter la navette suivante à la dernière en opération; ce métier peut marcher à une vitesse plus grande que tout autre métier à boîte circulaire; il est muni d'un frein, breveté, qui arrête le métier avec le pas ouvert sans l'effort ordinaire sur aucune partie essentielle (EXPOSÉ).

UN JACQUARD, BREVETÉ, de simple construction fixé à un métier uni, qui nous met à même de tisser des étoffes de fantaisie ornementées; et en même temps effectuant une grande économie de matériel d'ornement, accroissant de beaucoup la production, et ouvrant un champ beaucoup plus vaste (EXPOSÉ).

MACHINE INDICATEUR, BREVETÉE, pour travailler 20 lisses (ou tout autre nombre moins considérable); à diviser la chaîne, c'est-à-dire à la lever de haut en bas et de bas en haut, ou à la lever toute dans un seul sens; et aussi pour lever les lisses de derrière plus haut que celles de devant, ce qui est un grand soulagement pour la chaîne (AUSSI EXPOSÉ).

Nous sommes aussi les CONSTRUCTEURS BREVETÉS de MÉTIERS pour tisser duite-et-duite.

MÉTIER SÉRIÉ À SERGE.

MÉTIER À DAMAS ET TAPIS DE TABLE.

MÉTIER À TOILE.

MÉTIER À LAINE POUR DRAPS LÉGERS ET ÉPAIS.

MÉTIER SÉRIÉ SPÉCIALEMENT ADAPTÉS AU TISSAGE DES FIBRES DE NOIX DE COCO.

PATENT CIRCULAR BOX MOVEMENTS zur Bewegung eines jeden Schiffes, welches man in einer Serie wünscht, dasselbe macht auch mit irgend welchem Schiffe die verlangte Anzahl von gleichförmigen Stichen (DIESER STUHL IST AUSGESTELLT).

PATENT CIRCULAR BOX LOOM. Dieser Stuhl wirft das nächste Schiff nach dem zuletzt gearbeiteten und kann mit grösserer Sicherheit und Schnelligkeit als jeder andere derartige Stuhl benutzt werden; an selbem befindet sich auch eine Patent-Bremse, welche den Stuhl unverdeckt und ohne die gewöhnliche Erschütterung eines wesentlichen Bestandtheiles sperrt (AUSGESTELLT).

PATENT JACQUARD von einfacher Construction, an einen gewöhnlichen Webstuhl befestigt, wodurch es uns ermöglicht wird, verzierte Modestoffe zu weben. Zu gleicher Zeit wird viel Material zur Verzierung erspart, grössere Erzeugung erzielt und eine weitere und bessere Auswahl von Dessins gestattet (AUSGESTELLT).

PATENT-INDEX-MASCHINE zur Arbeit mit 20 Schäften (oder weniger); sie theilt die Kette, nämlich hebt sie aufwärts und abwärts, oder thut nur das Eine, und hebt die Rückschäfte höher als die vorderen, was eine grosse Erleichterung für die Kette ist (AUCH AUSGESTELLT).

Wir sind auch PATENTEIGENTHÜMER UND FABRICANTEN VON WEBESTÜHLEN (PICK-AND-PICK).

DAMAST- UND TISCHTÜCHER-WEBESTÜHLE.

LEINWAND-WEBESTÜHLE.

WOOLLENWEBESTÜHLE FÜR LEICHTE UND SCHWERE TUCHE.

SCHWERE WEBESTÜHLE, BESONDERS FÜR COCUSNUSSFASERN GEEIGNET.

PARKER, CHARLES, ET FILS, *Lady Bank Works, et Clepington Foundry, Dundee, Écosse.*

Agent—R. S. PARKER, 69 Rue de Béthune, Lille, France.

Métiers Mécaniques, et Machines Préparatoires s'y rattachant, spécialement adaptés à la Fabrication des Toiles, et Tissus de Jute et de Chanvre.

Dampfwebestühle und Zubereitungs-Maschinerie für dieselben, besonders für Linnen-, Indische Hanf- und Hanf-Fabricate geeignet.

Ont obtenu une Médaille du Conseil à l'Exposition Universelle de Londres, 1851; une Médaille d'Honneur en Or à l'Exposition Internationale de Paris, 1855; et une Médaille à l'Exposition Universelle de Londres, 1862.

Ayant consacré notre attention spéciale, durant presque un quart de siècle, à la construction de métiers mécaniques et machines préparatoires, adaptés à la fabrication des toiles et tissus de jute et de chanvre, et possédant de nombreux clients dans presque toutes les parties du monde, nous pouvons dire avec confiance, que nous sommes en mesure de fournir à quiconque nous confiera ses commandes les meilleurs métiers possibles, tant pour l'excellence de la main-d'œuvre que pour les matières premières employées dans leur construction, et comprenant les perfectionnements les plus récents.

Dundee étant port de mer, offre de grands avantages pour transport.

Tous renseignements volontiers fournis sur demande, adressés soit directement à Dundee, soit à M. R. S. PARKER, Lille.

Erlangten eine 'Council'-Medaille auf der allgemeinen Ausstellung zu London, 1851; eine goldene Ehren-Medaille auf der internationalen Ausstellung zu Paris, 1855; und eine Preis-Medaille auf der allgemeinen Ausstellung zu London, 1862.

Da wir unsere ausschliessliche Aufmerksamkeit seit ziemlich einem Vierteljahrhundert auf die Construction von Dampfwebestühlen und Zubereitungs-Maschinerie, welche zur Fabrication von Linnen-, Indischen Hanf- und Hanf-Manufacturwaaren gebraucht wird, gerichtet haben, und da wir eine grosse Geschäftsverbindung mit fast allen Theilen der Welt besitzen, so können wir mit vollem Vertrauen sagen, dass wir im Stande sind, allen denjenigen, welche uns mit ihren Aufträgen beehren werden, die bestmögliche Maschinerie zu liefern, sowohl was Arbeit, Qualität des angewandten Materials, als auch die neusten Verbesserungen anbetrifft.

Da Dundee ein Seehafen ist, so bietet dies grosse Vortheile für billige Versendung.

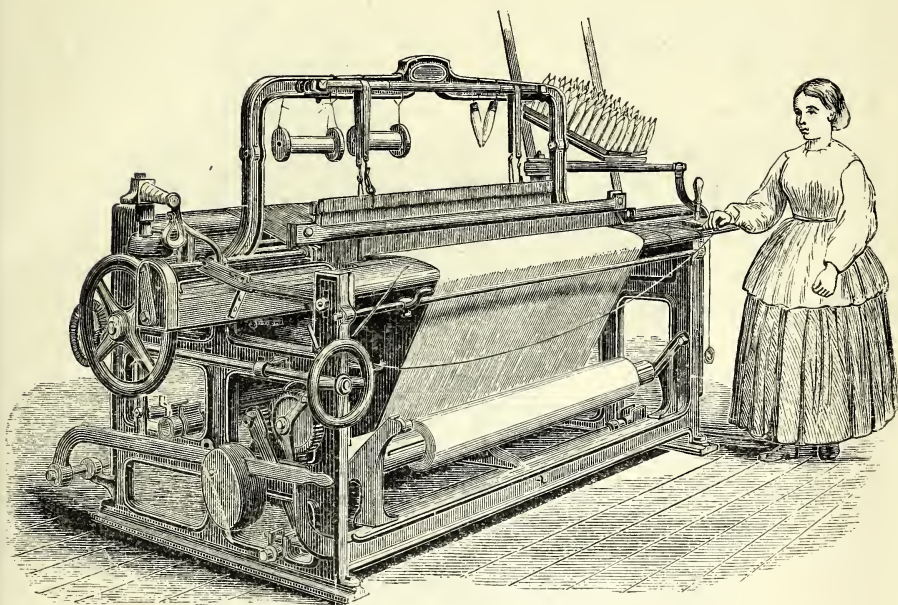
Jede gewünschte Auskunft wird mit Vergnügen ertheilt, auf gefällige Anfrage bei unserm Hause in Dundee oder bei Herrn R. S. PARKER, Lille.

URQUHART, LINDSAY, & CO., *Blackness Foundry, Dundee, Scotland.*

Exhibitors of Patent Power Loom, in motion.

Exposants d'une Machine à tisser la toile (fonctionnante).

Aussteller von patentirten Webestühlen für und in Maschinenbetrieb.



Makers of every description of power looms, for plain and twilled cloth, of every quality and weight of fabric; calenders; cropping, damping, and measuring machines; and hydraulic packing presses. Warp and weft winding machines on the best principles; patent machines for softening and batching jute and hemp; steam engines, steam cranes, and steam pump; saw benches and improved tenoning machines; also all shafting, gearing, bracketing, &c. required in factories and other works.

Designs, specifications, and estimates furnished for spinning mills, weaving factories, bleachworks, flour, corn, and saw mills, &c. &c.

Fabricants de toute espèce de métiers mécaniques brevetés, pour toiles unies et croisées, de chaque qualité et poids; de calandres; de machines pour couper (cropping machines), humecter et mesurer les tissus; de presses hydrauliques pour emballer; de machines à bobiner la trame et ourdir la chaîne de parfaite construction; de machines brevetées pour amollir et mêler (batching machines) le jute et le chanvre; de machines à vapeur; de chèvres

de toutes sortes et pompes à vapeur; de tables à scier, et de machines pour couper tenons; et conducteurs requis, ainsi que tout genre de transmission usée dans les fabriques.

Ils fournissent les dessins et détails pour des filatures, tisseranderies, blanchisseries, moulins de farine et de blé, etc. etc.

Liefern alle Arten Webestühle sowohl für gewöhnliche wie zu Tuchen mit Dessin, von jeder Qualität und Feinheit; ferner Calander-, Schier-, Appretur- und Tuchmessmaschinen; hydraulische Packpressen; Windmaschinen in vorzüglichster Construction; patentirte Hanf- und Jute-Reib- und Vorarbeitungs-Maschinen; Dampfmaschinen, Dampfmaschinen, Dampf-Krahnen; Kreissägen, verbesserte Zapfenschneid- und Lochstamm-Maschine, so wie ganze Fabrikeinrichtungen, wie Transmissionen, Riemscheiben, Lager etc. etc.

Zeichnungen, Preislisten und Ueberschläge für Spinnereien, Webereien, Bleichereien, Mahl- und Sägemühlen etc. etc. stehen mit Vergnügen zu Diensten.

CLASS LVII.

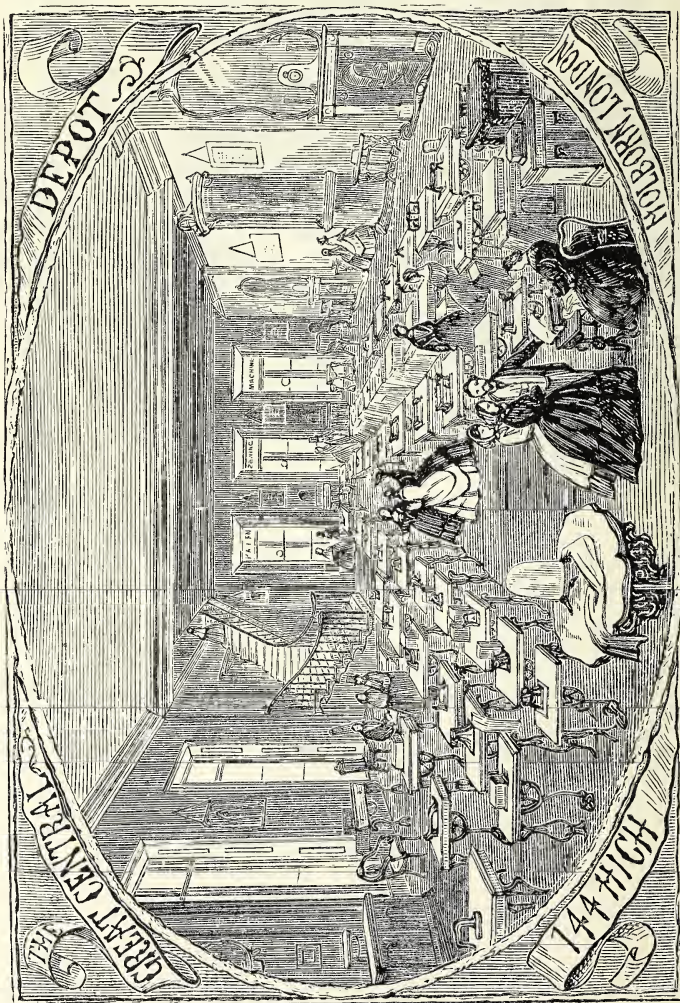
NEWTON, WILSON, & CO., 144 High Holborn, w.c., and 144 Cheapside, E.C., London.

Sewing Machines and their Products—*Machines à Coudre et leurs Produits.*

Nähemaschinen und deren Erzeugnisse—*Macchine da Cucire e loro Prodotti.*

These machines include the newest and best hand machines, also table machines for any kind of use, family or manufacturing. Hand machines, Queen Mab, 3*l*. 3*s*., and Cleopatra, 4*l*. 4*s*.; Penelope (lock stitch) 5*l*. 5*s*. Stands for any of these at 1*l*. 1*s*., 2*l*. 2*s*., and 3*l*. 3*s*. No fixing is required. Lock or knotted stitch machines on tables or stands, with cover complete, from 8*l*. 8*s*. to 10*l*. 10*s*. New bootcloser's machine, 9*l*. 9*s*. and 10*l*. 10*s*. The 'Duplex,'

with instantaneous double action, 14*l*. 14*s*. The 'Crispin,' for all purposes for tailors or bootmakers, with universal feed, 16*l*. 16*s*., without change of parts or alteration of motion. The work exhibited comprises a magnificent dressing-gown and smoking-cap, child's dress, with model complete, and specimens of ornamental work in boots and shoes. Illustrated catalogues in English, French, German, and Italian, to be had at the stand.

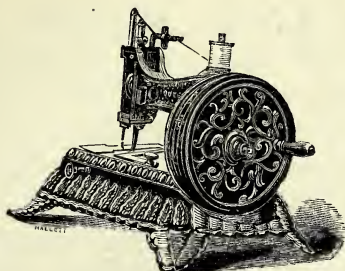


Ces machines comprennent les machines à main les plus nouvelles et les meilleures, ainsi que les machines à table pour tout usage, de famille ou de fabrique. Machines à main, la 'Reine Mab,' 78 fr. 75 c.; la 'Cléopâtre,' 105 fr.; la 'Pénélope' (à point fermé), 131 fr. 25 c. Pieds pour toutes ces machines, 26 fr. 25 c., 52 fr. 50 c., et 78 fr. 75 c. N'ont pas besoin d'être fixées sur place. Machines à piqûre arrêtée ou à point de chaînette, sur table ou pied, avec enveloppe complète, de 210 fr. à 262 fr. 50 c. Nouvelle machine à piquer les chaussures, 236 fr. 25 c. à 262 fr. 60 c. La 'Duplex' à double effet instantané, 367 fr. 50 c. La 'Crispin,' pour tous usages de tailleurs ou bottiers, avec alimenteur universel, 420 fr., sans changement de pièces ou modification de mouvement. Les ouvrages exposés comprennent une magnifique robe de chambre et un bonnet grec,

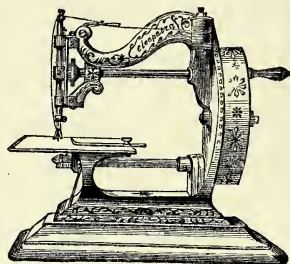
une robe d'enfant, avec modèle complet, et spécimens d'ornementation pour bottines et souliers. Catalogues illustrés en Anglais, Français, Allemand et Italien, se procurent à leur exposition.

Diese Maschinen begreifen in sich das Beste, was in Hand- und Gestell-Maschinen zum Familiengebrauch oder für Fabriken bis jetzt hervorgebracht worden ist. Handmaschinen, 'Queen Mab,' 3*l.* 3*s.*; 'Cleopatra,' 4*l.* 4*s.*; 'Penelope' (geschlossener Stich—Lock-Stich), 5*l.* 5*s.* Gestelle zu jeder dieser Maschinen,

Queste macchine includono le migliori macchine a mano ed anche macchine a tavolino per ogni specie d'uso domestico o di fabbrica. Macchine a mano, 'Queen Mab,' 3 ghinee, e 'Cleopatra,' 4 ghinee; 'Penelope' (punto incatenato), 5 ghinee. Sostegni per



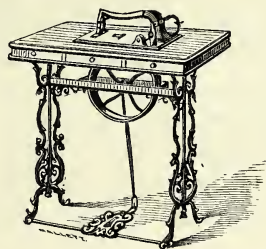
Queen Mab, 3 guineas.
La Reine Mab, 80 fr.
Königin Mab (Queen Mab), 3 Guineen.
La Regina Mab, 3 ghinee.



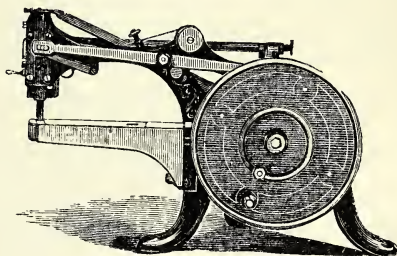
Cleopatra, 4 guineas.
La Cléopâtre, 105 fr.
Cleopatra, 4 Guineen.
La Cleopatra, 4 ghinee.

1*l.* 1*s.*, 2*l.* 2*s.* und 3*l.* 3*s.* Sie erfordern keine Befestigung. Maschinen zum geschlossenen Stich, Knotenstich, auf Tischen oder Gestellen, mit Deckel, complet, von 8*l.* bis 10*l.* 10*s.* Neue Maschinen zum Nähen von Schuhoberleder, 9*l.* 9*s.* und 10*l.* 10*s.* Die 'Duplex,' mit unmittelbarer doppelter Bewegung, 14*l.* 14*s.* Die

qualunque di queste ad 1, 2 e 3 ghinee Non è necessario fissarle. Macchine per punto a catena o a nodo su tavolini o sostegni con copertura completa da 8 a 10 ghinee. Nuova macchina da calzolaio 9 e 10 ghinee. La 'Duplex,' con doppia azione istantanea, 14



Family Machine, 10 guineas.
Machine de Famille, 262 fr. 50 c.
Maschine zum Familiengebrauche, 10 Guineen.
Macchina per Famiglia, 10 ghinee.



Duplex Machine, with Table and Pedal, 14 guineas.
Machine Duplex, 367 fr. 50 c.
Duplex-Maschine, 14 Guineen.
Macchina 'Duplex', 14 ghinee.

Crispin,' besonders für Schneider und Schuhmacher, und für jeden Faden passend, 16*l.* 16*s.*, ohne erforderliche Aenderungen irgend eines Theiles der Maschine. Die als Probe ausgestellten Arbeiten bestehen aus einem prachtvollen Schlafrocke, einer sehr schönen Hauskappe, einem Kinderkleidchen, mit vollständigem Modelle und Proben von verziertem Leder für Schuhe und Stiefeln. Illustrierte Cataloge in Englisch, Französisch, Italienisch und Deutsch werden von den Ausstellern auf Verlangen gegeben.

ghinee. La 'Crispin,' per tutti i lavori di sarto o di calzolaio con alimentazione universale, 16 ghinee, senza cambiamento di parti o variazione di movimento. I lavori esposti comprendono una magnifica vesta da camera, una berretta ricamata, un vestito da bambino con modello completo, e saggi di lavori d'ornato in scarpe e stivali. Cataloghi illustrati in Inglese, Francese, Tedesco e Italiano si possono avere all'Esposizione.

CLASS LIX.

MILLER & RICHARD, *Type Founders to Her Majesty,*

HAVE always ready for delivery founts in their Extra Hard Metal. These they confidently recommend, as several years' trial under the HOE and other machines has demonstrated that their durability is at least *double* that of founts of the ordinary metal.

THEIR Type receives a preference by offices where the work is on the largest and most rapid scale, which affords the best guarantee that the *Printers' interest* would be best served by its introduction. They have effected great improvements in their manufacture, which enable them to supply founts of their superior metal at a very important *reduction of price*.

THEIR Series of Old Style Founts (in which these columns appear) is complete. It ranges from Two-line Great Primer to Pearl—*twelve different sizes*,—with plain and ornamental initials, head and tail pieces, and corners. Where unique elegance and beauty of typography are desired, this series will be found peculiarly suitable.

ONT toujours en main des fontes de leur métal extra dur. C'est en toute confiance qu'ils peuvent les recommander, une expérience de plusieurs années dans les machines de HOE et autres, ayant prouvé que leur durabilité est au moins *double* de celle de fontes en métal ordinaire.

C'EST leur caractère qui a la préférence dans les grandes imprimeries où le travail s'exécute avec rapidité, et sur la plus grande échelle prouve que les *Imprimeurs auront tout à gagner en s'en servant*. Comme ils en ont fort perfectionné la fabrication, ils sont à même de fournir des fontes de leur métal qualité supérieure à *un rabais considérable*.

LEUR série de fontes d'après les vieux modèles (dont on s'est servi pour l'impression de ces colonnes-ci) est complète. Elle comprend *douze corps différents*, du Two-line Great Primer à Pearl, lettres initiales simples et de fantaisies, titres courants, culs-de-lampe, et coins. Cette série est unique par son élégance et sa beauté typographique.

MILLER & RICHARD, *Type Founders to Her Majesty.*

MILLER AND RICHARD manufacture brass rules of every description; mitred page rules; stereo-type blocks; galleys of all kinds; the improved *pinned* cases; chases of cast and wrought iron; composing sticks of iron, brass, and mahogany with brass slide; boxwood shooting sticks, also tipped and bound with iron or brass; wood and French metal furniture; and *every other requisite* for a Printing Office, all of the best quality and at reasonable prices.

THEY invite attention to their Wood Letter, as its accuracy in size and height to paper, combined with its superior finish, and the well-seasoned material on which it is cut, *render it equal* to large metal type.

THEY supply the new patent 'Mechanical Quoins' for locking up formes, which dispense with wooden side and foot sticks, mallet and shooter, and wooden quoins. This useful invention consists of a quoin in tempered metal which is provided with teeth, and the little apparatus is completed by a cog with corresponding teeth, which is turned by a key. They are now very generally used for every class of work, and are a great desideratum from their economy, security, and durability. By the employment of this *locking-up apparatus*, formes may be kept standing for any length of time, as it is not affected either by dryness or humidity like the wooden quoin.

THEY keep stock of printing presses, galley presses, and proof galley presses, cylindrical and common inking tables, imposing surfaces, improved paper-cutting machines; also of press and machine blankets of various thicknesses and widths, and machine tape of the best make, and at the manufacturers' prices.

THEY supply founts from the matrices of the Music Type of the late Messrs. Sinclair & Sons of Edinburgh. They obtained all the Long Primer matrices and moulds of the late Foundry of Messrs. Ferguson Brothers; and also the greater number of the punches, matrices, and moulds of the late Foundry of Messrs. Milne & Co. of Edinburgh; and will be happy to *supply founts or sorts to any extent*.

THEY purchased the Goodwill of the Business of the late Messrs. S. & T. Sharwood, of the Austin Letter Foundry, London, and also the matrices of their principal useful and modern Jobbing Letter, and having added largely to them from the newest styles of Ornamental Letter, they can promptly furnish a *complete Printing Office*, on any scale, with the most modern and most durable founts that can be produced.

MM. MILLER ET RICHARD fabriquent des filets anglais en cuivre jaune de tout genre; filets mitrés pour pages; blocs stéréotypés; coulisses de toute espèce; casses perfectionnées à chevilles; châssis de fer fondu et forgé; composteurs de fer, de cuivre jaune, d'acajou à coulisse de cuivre; fournitures de bois et de métal français; en un mot tout ce *qui est nécessaire* dans une imprimerie de la meilleure qualité et à des prix très-modérés.

LEUR caractère de bois se recommande par son égalité parfaite, ce qui le rend propre au papier, son grand fini et l'excellente qualité de bois séché, dont il est fabriqué, ce qui le *rend égal* au grand caractère de fonte.

ILS fournissent les nouveaux 'Coins Mécaniques' brevetés qui rendent inutile l'emploi de biseaux de bois, de maillet et décoignoir, et de coins de bois. Cette utile invention consiste en un coin de métal trempé à dents, le petit appareil étant complète par un cran à dents correspondantes, que l'on trouve au moyen d'une clef. On s'en sert maintenant pour toute espèce d'ouvrage, et elle se recommande par son économie, sa sûreté, et sa durabilité. En se servant de cet *appareil-ci*, on peut laisser les formes de côté aussi longtemps que l'on veut, car il n'est point comme les coins de bois, sujet à l'influence de la sécheresse et de l'humidité.

ILS ont en magasin des presses d'imprimerie; de coulisses, éprouvées; des tables d'encrier cylindriques et ordinaires; des marbres; des machines, coupe-papier perfectionnées; des blanchets pour presses et machines, de largeurs et d'épaisseurs différentes; des rubans de machine, première qualité, et aux prix de fabrique.

ILS fournissent les fontes des matrices des caractères de musique provenant de l'ancienne fabrique de M. M. Sinclair et Fils, à Edimbourg. Ils ont acquis toutes les matrices et tous les moules des Long Primer de l'ancienne usine des M. M. Ferguson Frères; et de la grande partie des emportepièces des matrices et des moules de l'ancienne usine de M. M. Milne et Cie, à Edimbourg, et ils sont prêts à livrer *fontes ou sortes de toute espèce*.

ILS ont acquis la clientèle de l'ancienne 'Austin Letter Foundry,' appartenant aux M. M. Sharwood et Fils, à Londres, et aussi les matrices de leurs principales lettres éventuelles modernes les plus utiles, et y ayant largement ajouté les genres les plus nouveaux de lettres de fantaisie, ils peuvent fournir tout de suite, les fontes les plus modernes, et les plus durables qui se puissent produire pour une *Imprimerie complète* sur quelque échelle que ce soit.

CLASS LX.

HER MAJESTY'S POSTMASTER-GENERAL.

MODELS OF APPARATUS AND MACHINES ILLUSTRATING THE ARRANGEMENTS ADOPTED AT THE GENERAL POST-OFFICE, LONDON.

1. MODELS OF RAILWAY MAIL CARRIAGES.*

These models represent the mail carriages in use by the limited night mail train on the London and North-Western line of railway, and are technically known as (A) railway post office; (B) district sorting carriage; and (C) tender.

The three carriages are connected by a gangway (i.e. a covered passage over the buffers), thus allowing the officers employed in them to pass from one carriage to another when the train is in motion; the entire length of the carriages when thus joined being 77 feet.

In the railway post office (A) the work performed consists in the collecting and distributing the *cross post* correspondence, i.e. the letters and newspapers passing between one provincial post town and another. Thus, on the journey from London to Carlisle, a distance of 300 miles, 152 bags are received at 26 different railway stations, and the letters (27,000) and the newspapers (3,900) are sorted and despatched in 122 bags to the respective towns for which they are intended.

In the district sorting carriage (B), *only London letters and newspapers* are dealt with, the work on the journey from London to Preston, a distance of 210 miles, consisting in the letters (17,000) and newspapers (6,200) for 80 towns being sorted and despatched in the respective bags for those towns; thus relieving the chief post-office in London at the busiest time of the day, and enabling the mails to be dispatched from London with punctuality. On the journey to London the officers are employed in sorting the letters (12,250) for the 10 London postal districts, and in aggregating the bundles of postal district letters which are sorted at the large towns, in order to accelerate the first morning delivery of letters in the metropolis.

The tender (C) is used for conveying certain bags for the larger towns, made up at the chief office, and at some of the provincial post-offices; but as ordinary vans are attached to a mail train for a similar purpose, this tender (C), to which the mailbag apparatus is attached, is used mainly for receiving and delivering mailbags at those stations at which the train does not stop; on the journey from London to Carlisle (300 miles) the apparatus is brought

into use 20 times, thus saving much loss of time in stopping at smaller stations.

2. MODEL OF THE 'CONNAUGHT' STEAMSHIP, EMPLOYED ON THE MAIL SERVICE BETWEEN HOLYHEAD AND KINGSTOWN.

The ship is built of iron by Messrs. Laird of Birkenhead. The length between the perpendiculars is 348 feet; the beam is 35 feet, and depth 20 feet. There are nine principal iron watertight bulkheads, which not only provide for the safety of the ship in case of accident, but add greatly to her strength in a seaway. Between the paddleboxes an upper deck, about 50 feet in length, has been placed. It is laid on iron beams well secured, and being provided also with diagonal tieplates it further adds to the strength amidships. It forms an agreeable promenade for the passengers in moderate weather. The wheel and the binnacle are placed on this upper deck. The entire of the main deck, from the foremost funnel to the bows, is covered over by a hurricane deck, which has been found of great advantage in throwing off the seas.

The engines, on the oscillating principle, were made by Messrs Ravenhill, Salkeld, & Co.; the cylinders are 98 inches diameter, with a length of stroke of 6 feet 6 inches. The eight boilers are multitubular, four at each end of the engine-room space, arranged in pairs, with one funnel to each pair. The wheels are constructed on the feathering principle. On the trial trip, the engines worked at the rate of $25\frac{1}{2}$ revolutions per minute, under a steam pressure of 25 lbs. per square inch. The mean of the runs at the measured mile in Stokes Bay, was at the rate of $20\frac{3}{4}$ statute miles an hour, a greater speed by upwards of one mile an hour than had been previously attained.

She has made 2,585 passages of the Channel from October 1, 1860, and December 31, 1866, in the average time of 3h. 54m., 4 inclusive of the delays caused by storms or fogs, or at the rate of $16\frac{1}{4}$ statute miles per hour; the shortest passage was made in 3h. 14m., nearly 20 miles an hour. No breakdown, collision or accident of any kind has taken place since the ship commenced the service, on October 1, 1860.

The saloons and cabins are large, lofty, and well-ventilated. The principal one is upwards of 60 feet in length, by 17 feet in breadth, and 9 feet 6 inches in height. On each side of this saloon there are state-rooms. The ladies'

* The model carriages now exhibited were built by the London and North-Western Railway Company at their works at Wolverton, under the directions of Mr. Bore, their chief superintendent.

saloon and cabins are entered from a large deck-house by a separate staircase. First-class passengers have excellent sleeping cabins in other parts of the ship; and there are also two commodious deck cabins, one of which is appropriated as a smoking room.

The cost of the ship complete was 90,000*l*.

One of the principal peculiarities which render this and the other vessels for the Irish mail service of so unique a class, is the post-office fitted for sorting letters during the passage. The space occupied for this purpose extends across the entire breadth of the vessel, and for the length of 30 feet, between the first and second class cabins. It is divided into two rooms; one for letters, and the other for newspapers. In these rooms, the sacks are opened, the contents taken out and arranged by eight or ten sorters, under the direction of a head superintendent. The letters are stamped with the post-office stamp, the postage labels cancelled, and all the operations completed, so that the letters are ready for delivery on the arrival of the vessel at Kingstown, thus effecting a considerable saving of time in the delivery, as well as accelerating the transmission of the provincial letters through Dublin.

3.—MODEL OF POST-OFFICE COUNTER, WITH POSTE RESTANTE FITTINGS, MONEY DRAWER, ETC.

4.—TABLE ON WHICH MAIL BAGS ARE OPENED, AND LETTERS STAMPED, WITH FITTINGS. MACHINE FOR STAMPING LETTERS, INVENTED BY MR. PEARSON HILL, AND SPECIMENS OF STEEL AND WOODEN DATE STAMPS, AND STEEL STAMPS FOR CANCELLING LABELS. STAMPING PADS.

5.—MODEL OF TABLE ON WHICH LETTERS ARE SORTED, FITTED WITH REVOLVING LABELS.

6.—TABLE WITH DIVISIONS INTO WHICH LETTERS ARE FINALLY SORTED FOR DISPATCH, WITH SEALING APPARATUS, AND OTHER FITTINGS.

7.—MODEL OF MAIL VAN.

Diagram showing the London district Mail Cart Services.

Map of letter carriers' walks in Eastern Central and Western Central districts of London.

Specimens of indicators of post offices.

„ „ for lamps and lamp posts.

Specimens of stencil plates used for marking mail bags.

MODEL OF MAIL COACH IN USE BEFORE THE INTRODUCTION OF RAILWAYS.

This is believed to be the most perfect model ever made of an English mail coach. It was built in 1836, by Mr. Harris, a London coach builder, at a cost of £57. The gradual introduction of railways has caused the use of mail coaches to be superseded, except on two or three roads in Scotland and Ireland.

MODEL OF NEW ARGAND ROOF LAMP, IN USE IN TRAVELLING POST-OFFICE CARRIAGES ON RAILWAYS.

This lamp burns with two glasses. The whole of the air supplied to the lamp is deflected through the flame, by which means perfect combustion is obtained, and a pure white light is the result.

The lamp, when filled with oil, will burn ten hours, consuming a pint and a half of oil, at a cost of about ninepence.

The lamp is patented, and is manufactured by Mr. Dawson, of Piccadilly, London.

8.—MODEL OF PILLAR LETTER BOX WITH FITTINGS.

Model of wall letter box, with fittings and frame, showing how the box is fixed.

Specimens of canvas bags in which mails are forwarded, with the different modes of fastening adopted; also specimens of letter carriers pouches.

9.—SPECIMENS OF THE BOOKS, FORMS, AND RECEIPTS USED FOR RECORDING THE ADDRESSES OF REGISTERED LETTERS ON THE MANIFOLD SYSTEM.

Specimens of scales for weighing letters adapted to English, French, and Prussian weights.

Specimens of letter carriers' uniform, cap and cape.

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON.

DUSTING MACHINE.

This machine was constructed by the late Captain Fowke, R.E., for the purpose of dusting art objects in the South Kensington Museum, such as wood-carvings, marble work, plaster casts, and other ornamental work. Previous to the adoption of this machine, objects were dusted with the ordinary feather dusters, imperfectly and at a great cost of labour, and the objects became much dirtied on the surface. The machine consists of a rotary fan of the usual form, but is made of wood instead of iron, whereby it not only runs lighter, but is

quite noiseless; it is worked by hand, by a fly-wheel, gut, and pulley, running on wood bearings, making about 900 revolutions per minute. Attached to the fan is a hose of somewhat singular construction, being made of two thicknesses of leather interwoven with crinoline steel, and made in lengths, with brass connecting joints. It is portable, and can be wheeled easily by one man. It has been in use for the last two years at the South Kensington Museum, and found to be well adapted to the purpose, and is used for dusting objects in this Exhibition.

CLASS LXI.

HOOPER & CO.

*Coach Builders to Her Majesty the Queen,
H.R.H. the Prince of Wales,
H.R.H. the Duke of Cambridge,
H.R.H. the Duchess of Cambridge,
H.S.H. the Prince Teck,
His Majesty the King of Prussia,
H.R.H. the Crown Prince of Prussia, &c. &c.*

VICTORIA-STREET, midway between Belgravia and the Houses of Parliament, LONDON, S.W.

MEDALS.

*Prize Medal, London, 1851;
Jurors' Medal, London, 1862;
French Treaty Medal, Paris, 1863;
First-Class Silver Medal, Cologne, 1865;
Jurors' Medal, Dublin, 1865;
Gold Medal of Honour, Oporto, 1865.*

The carriages shown are—An 'Epsom Drag' for four horses, built on the most approved lines and measurements of the Four-in-hand Club, with various improvements and conveniences to adapt it to the wants of the present time. The lever break is worked from the hind seat—such carriages when in use being always accompanied by one or two grooms, it is considered better to relieve the driver from working the break. To render the carriage more suitable for pic-nics and races, the boot doors are made to fall down as tables, the front boot sides also let down as tables, and a folding mahogany table is made to pass quite through the body of the carriage, and project on each side. The plate and cutlery are carried in a box with suitable divisions, fitting into the top of the front boot, through a concealed trapdoor.

A capacious basket carries lunch in the front boot.

A folding box on the roof carries glass, and portions of the lunch.

The ice-wells, of polished mahogany, lined with zinc, are fitted in the hind boot; and on a shelf over the ice-wells the folding table is carried when not in use.

Nets are provided in the interior for parcels and umbrellas.

A 'Light Park Barouche,' hung on under and C springs, leather braces, and wrought iron perch. The utmost care has been taken

Les voitures exposées sont :—Un 'Epsom drag' pour quatre chevaux, construit d'après les mesures et lignes les plus approuvées du 'Four-in-hand Club,' avec divers perfectionnements fort commodes destinés à l'adapter aux besoins de l'époque actuelle. Le levier du frein se manœuvre du siège de derrière—ces sortes de voitures étant, quand on s'en sert, toujours accompagnées d'un ou deux palefreniers, on a pensé qu'il valait mieux débarrasser le cocher du soin de manœuvrer le frein. Pour que cette voiture soit plus commode pour les courses ou des 'pic-nics,' les portes des bateaux sont ajustées de façon à s'abattre comme des tables, de même que les côtés du bateau de devant, et de plus une table pliante en acajou, traversant d'un bout à l'autre le véhicule, se projette sur chaque côté. L'argenterie, les couteaux, etc., se transportent dans une boîte à compartiments convenables, s'ajustant sur le dessus du bateau de devant au moyen d'une trappe dissimulée.

Un vaste panier sert à contenir les comestibles dans le bateau de devant.

Une boîte pliante sur l'impériale renferme les objets en verre et faisant partie du service de collation.

Les seaux à glace, d'acajou poli, doublé en zinc, sont fixés dans le bateau de derrière. Sur un rayon au-dessus d'eux se place la table pliante quand on ne s'en sert plus.

Enfin des filets sont disposés à l'intérieur pour les paquets et parapluies.

Une 'Light Park Barouche,' à double suspension, avec soupentes de cuir, et perche de fer forgé. Les meilleurs moyens ont été em-

HOOPER & CO.

*Carrossiers de Sa Majesté la Reine,
S.A.R. le Prince de Galles,
S.A.R. le Duc de Cambridge,
S.A.R. la Duchesse de Cambridge,
S.A.S. le Prince de Teck,
Sa Majesté le Roi de Prusse,
S.A.R. le Prince Royal de Prusse, etc. etc.*

VICTORIA-STREET, à mi-chemin entre Belgravia et les Chambres du Parlement, LONDRES, S.W.

MÉDAILLES.

*Médaille à Londres, 1851 ;
Médaille de Juré, Londres, 1862 ;
Médaille du Traité Français, Paris, 1863 ;
Médaille d'argent 1ère Classe, Cologne, 1865 ;
Médaille de Juré, Dublin, 1865 ;
Médaille d'Honneur en Or, Oporto, 1865.*

to render the carriage not only light and graceful, but comfortable and easy.

This principle of construction was introduced by GEORGE HOOPER, in 1846, and after being well tested by use, was more prominently put forward in the Exhibition of 1851, when a prize-medal was awarded to it. The plan has been so much approved, that it has changed the construction of almost all suspended carriages, not only in England, but in Europe and America, rendering them lighter, and capable of being drawn by smaller horses, besides enabling C spring carriages to be used in hilly countries ; their weight in former times almost preventing their use in such parts.

A collection of drawings also representing carriages recently built by the firm for various royal personages and others of high rank.

A series of designs of carriages richly decorated to suit the tastes of Oriental customers.

A series of drawings by workmen in the employ of the firm.

A light 'Brougham' harness, made of the best Russian harness leather, and about half the weight of ordinary harness. Harness of this kind is in constant use, and has been well tested for strength and durability.

ployés pour réunir dans cette voiture la légèreté et l'élégance à l'agréable et à la commodité.

Ce principe de construction—dont GEORGE HOOPER fit le premier l'application, en 1846—après avoir été bien éprouvé par l'usage, conquit une place plus prééminente à l'Exposition de 1851, où une médaille lui fut décernée. Ce plan a reçu une approbation si générale, que le système de construction de presque toutes les voitures suspendues a été changé par son introduction, non seulement en Angleterre, mais dans toute l'Europe et en Amérique ; car il les rend plus légères, par conséquent susceptibles d'être tirées par des chevaux de moindre taille, et permet en outre l'usage des voitures sur ressorts en C dans les pays montagneux, où leur pesanteur empêchait jadis presque totalement de se servir de véhicules à ces ressorts en général.

Une série de modèles de voitures, représentant des voitures récemment construites par la maison HOOPER pour divers personnages royaux, et autres de tout rang.

Une série de projets de voitures richement décorées pour s'adapter aux goûts de leurs clients orientaux.

Une série de dessins et modèles par des ouvriers qu'emploie la maison HOOPER.

Un harnais léger pour 'Brougham,' fabriqué avec le meilleur cuir de Russie pour harnais, et pesant environ moitié moins qu'un harnais ordinaire. Des harnais de cette espèce sont constamment en usage, et l'expérience en a démontré la solidité et la durée.



McNAUGHT & SMITH, Worcester, England.

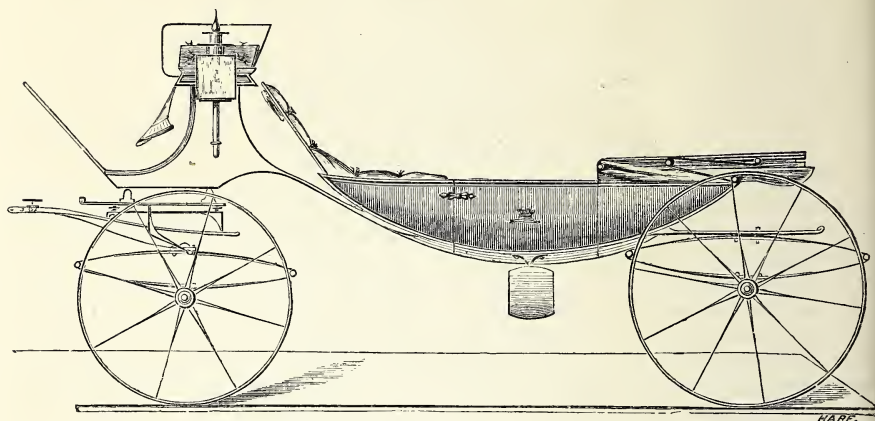
Carriage Builders and Harness Makers.

Constructeurs de Voitures, Fabricants de Harnais.



Awarded a Prize Medal at the International Exhibition, London, 1862, for 'Good Proportions, Workmanship, and Materials; and Good Taste in Colours.'

1862, Londres, Exposition Universelle, Médaille d'Honneur pour 'proportions bien assorties, bon choix de matériaux, élégance de travail et de bon goût.'



Light Pair-Horse Barouche—*Caièche Légère à Deux Chevaux.*

This carriage illustrates the advantages derived from the substitution of malleable steel for iron in its various parts, and the employment of American hickory and bent rims in the construction of the wheels.*

The manufacturers believe that they now present, on a small scale, a carriage which will bear comparison, for comfort and beauty of appearance, with any of larger size; and which, without sacrificing any of the elegant and unrivalled characteristics of the BAROUCHE, is well within the power of the LIGHT HORSES now so much in request.

ILLUSTRATED CATALOGUE, containing designs and descriptive letterpress of almost every description of MODERN CARRIAGE, DOG-CART, BASKET CARRIAGE, AND HARNESS, forwarded free by post on application.

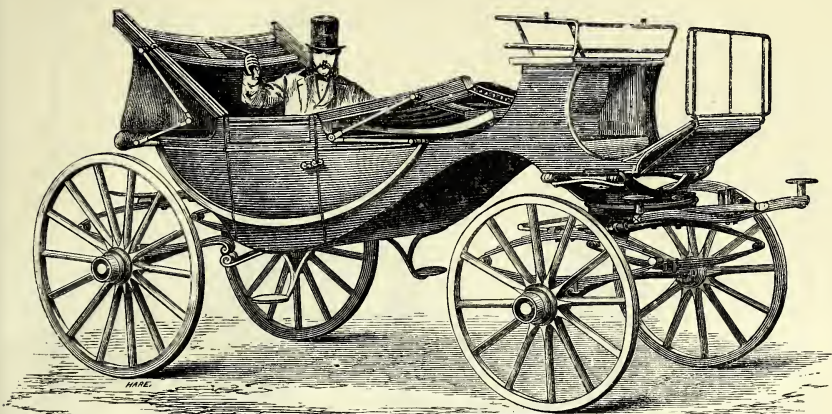
Cette voiture, excessivement solide quoique de la plus grande légèreté, tant par l'emploi d'acier malléable, dans diverses parties des ferrements, que par l'emploi du bois de hickory d'Amérique, appliqué aux roues—est spécialement recommandée par MM. McNAUGHT ET SMITH, comme pouvant par ses belles proportions, sa légèreté, et son confort remplacer toute autre grande voiture de ce genre, résolvant ainsi le problème si difficile aujourd'hui, d'avoir des voitures élégantes, solides, légères et spacieuses, aptes au service, fait avec des chevaux de trait légers, comme ceux d'aujourd'hui.

Un catalogue illustré, contenant tous les dessins, descriptions et prix de tous les genres de voitures, sera adressé franc de port, sur demande.

* MESSRS. McNAUGHT & SMITH would point out as worthy of special attention the very artistic and workmanlike manner in which the various parts are constructed; this being a distinguishing feature in all carriages of their manufacture.

ROCK & SON, *Hastings, England.*

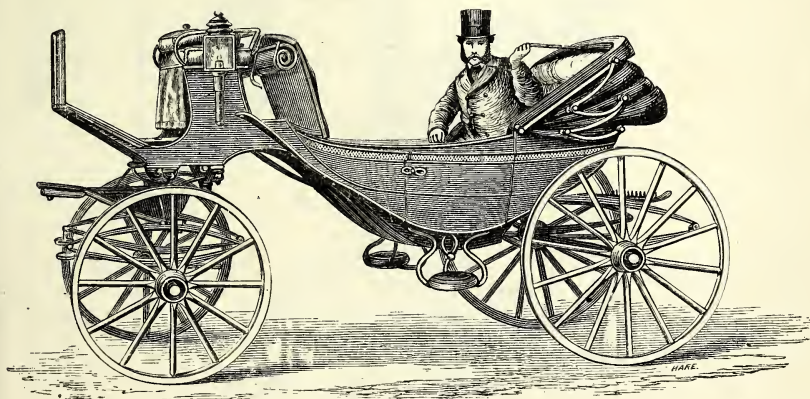
Carriage Patentees and Manufacturers.



Automatic or Balanced-head Landau—*Landau Automatique ou Soufflet à Bascule.*

One person seated in the carriage can open or close the head with the greatest ease, without the aid of coachman or footman.

Une personne assise dans la voiture peut, avec la plus grande facilité, ouvrir ou fermer la voiture, sans l'aide d'un cocher ou d'un domestique.



Automatic Sociable—*Calèche Automatique.*

Patented in England, France, Belgium, Austria, Italy, &c.

Rock & Son, *Hastings, and Crystal Palace*, Inventors of the 'Dioropha,'
Awarded Prize Medals, London, 1851; Paris, 1855; London, 1862; Dublin, 1865.

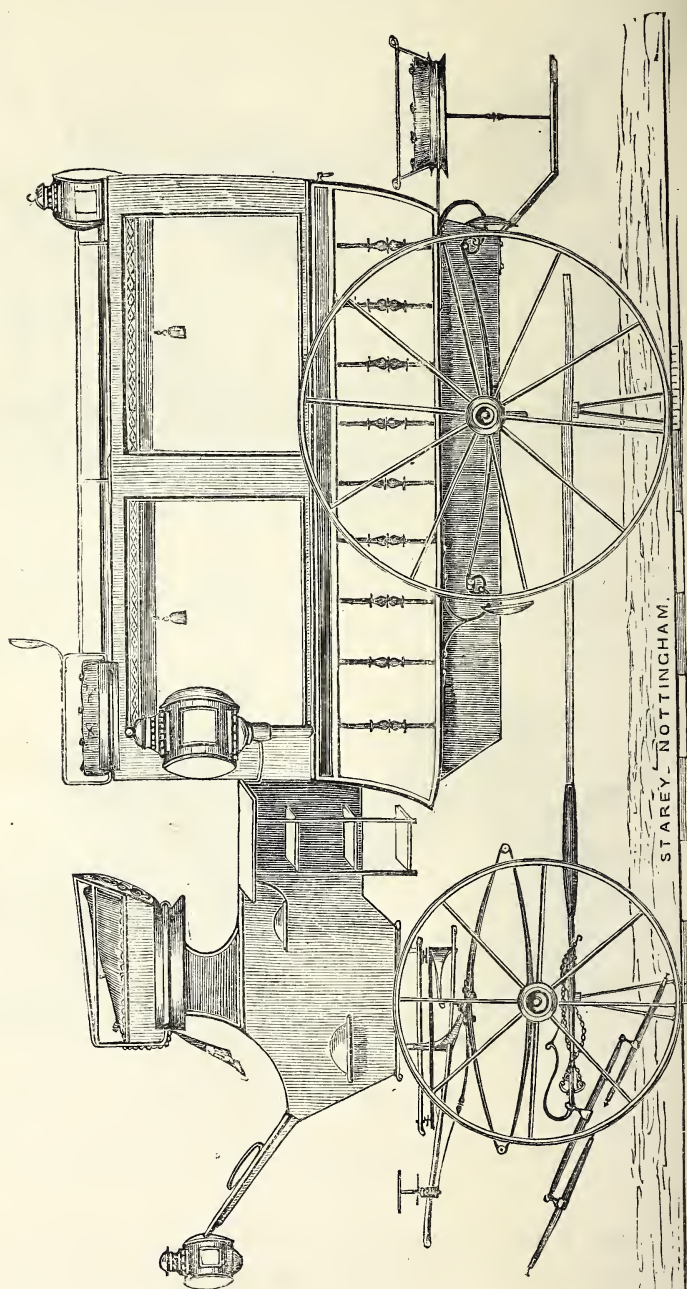
STAREY, T. R., *Nottingham, England.*

Carriage Builder and Harness Manufacturer.

PRIVATE FAMILY OMNIBUS

For two or four horses, fitted with self-acting 'break,' and all requisites for travelling, pic-nic, fishing, shooting parties, &c.

First Class Medal, Paris, 1855.—First Class Medal, Opor'o, 1865.

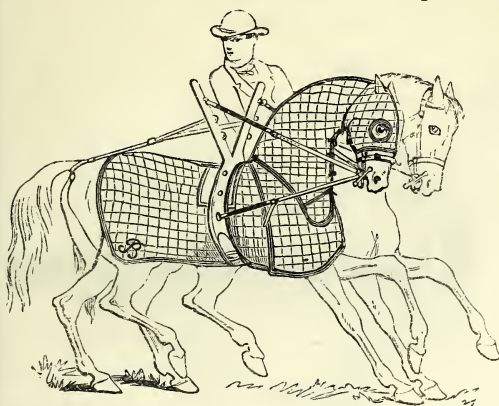


CLASS LXII.

BLACKWELL, *Patent Saddlery and Harness Manufacturer to Her Majesty and the Prince of Wales, 259 Oxford-street, London, W., near the Marble Arch.*

Manufacturer of Patent Saddlery and Harness.
Fabricants d'articles de Sellerie et Harnais, brevettés.

(In the Paris Exhibition, Group VI. Class 62, English Saddlery.)



Led Horses at Exercise, to prevent falling, and broken knees.

Chevaux à la promenade, en main, pour les empêcher de s'abattre et de se couvrir.

Awarded the Prize Medals, London, 1851 and 1862; Dublin, 1865; Cologne, 1865; and the only First Class Medal, Paris, for Saddlery, for—

Whalebone and gutta-percha jockeys, for breaking horses, easy mouthed and temperate, with spring reins of any strength, 56s. to 64s. Above 2,500 in use. On hire, 2s. a week.

Médailles à Londres, en 1851 et 1862; Dublin, 1865; Cologne, 1865; et a obtenu l'unique Médaille de Première Classe à Paris pour—

Jockeys brevetés en baleine et gutta-percha, pour dompter et dresser les chevaux, et les accoutumer doucement au mors, avec des ressorts en caoutchouc de toutes les forces. Prix, 80 fr. 2,500 sont en usage en Angleterre. Pour louage, 2 fr. par semaine.

Safety spring driving and riding reins to both bits, and one rein in hand, very safe for ladies, 8s. to 12s. 2,000 in use.

Straps to prevent crib-biting, and three sorts of crib muzzles, 18s. each. 1,500 in use.

Vulcanised rubber spring hooks for reins, &c.

Vulcanised india-rubber springs for saddle straps, girths, rollers, belts, &c., 2s.

Web boots of all widths, for fetlock, leg, and speedy cut, elastic and porous, 3s. to 9s. Knee boots for travelling and exercising, 8s. Patent springs, 10s. pair; with solid india-rubber pads, 12s.

Horses' legs and other parts fomented, by streams of hot water (or cold), by patent apparatus of vulcanised rubber. Perforated tube, 12s. If regulated by a tap, 15s.

Wholesale of the India-Rubber and Gutta-Percha Company, 2 Bishopsgate-street, E.C., and Silvertown; and 16 Rue de la Banque, Paris.

To be had of all saddlers.

Agent in Paris Exhibition, MAURICE SAUTTER, Cabinet de Brevets d'Invention, 50 Rue de la Chaussée d'Antin. The French patents for sale. Apply to M. SAUTTER for price, &c.

Ressorts en caoutchouc pour rênes attachés aux deux mors, une en main seulement, très-sûrs pour dames et aussi pour conduire les chevaux qui ont la bouche tendre et qui sont rétifs à la gourmette. Prix, de 10 fr. à 15 fr. 2,000 en usage.

Anti-col tiqueur en gutta-percha, pour empêcher le cheval de mordre sa mangeoire. Prix, 22 fr. 50 c. 1,500 en usage.

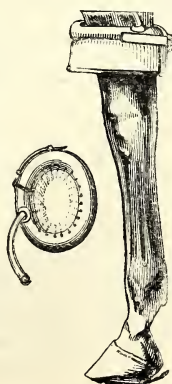
Ressorts en caoutchouc, pour courroies de selles, sangles, etc. Prix, 2 fr. 50 c.

Crochets en métal (avec ressorts en caoutchouc), pour fouets d'artillerie, cravaches, etc. et pour chaînes, rênes, etc.

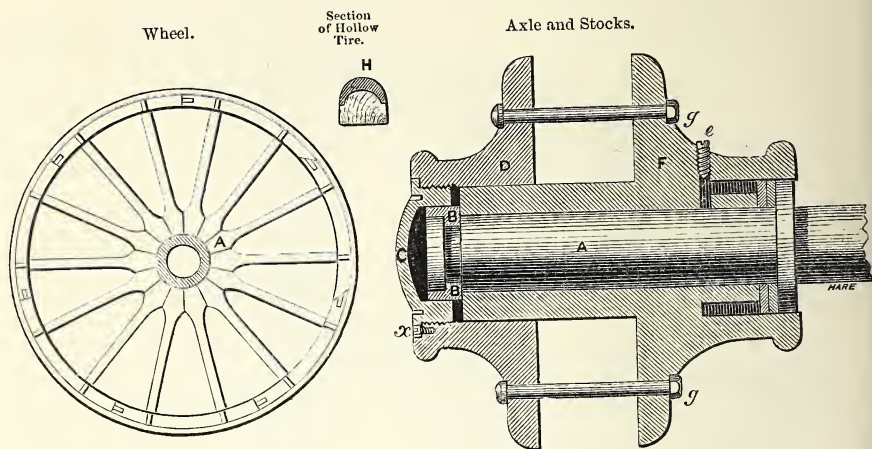
Appareil, breveté, en caoutchouc vulcanisé, pour fomentations des jambes et autres parties du corps, des chevaux, au moyen de courants d'eau chaude. Tube perforé, 15 fr. S'il est réglé par une cannelle, 18 fr. 75 c.

Se trouve en gros dans les magasins de la Compagnie de Caoutchouc et de Gutta-Percha, 2 Bishopsgate-st., E.C., et à Silvertown; et 16 Rue de la Banque, Paris. Se vend chez tous les selliers.

Agent pour l'Exposition de Paris, MAURICE SAUTTER, Cabinet de Brevets d'Invention, 50 Rue de la Chaussée d'Antin. Les brevets français sont à vendre. S'adresser à M. SAUTTER pour le prix, etc.



RUSSELL & CO., *Patent Sectional Wheel and Axle Factory, "Esher-street, Westminster, London, S.W.*



Axle (A) is retained in its place by the collar (B), which is in two half-segments. The collar (B) is retained in its place by the gun-metal cap (C), which screws into the outer stock (D), and is kept from turning by a keep-screw (X). The axle is kept constantly lubricated by oil supplied at the screw-hole (E) on the hinder stock (F). The nuts (G) confine the spokes at the arch.

This wheel differs from all others in the simplicity of its principle. Its advantages over the old wheel are, its lightness, strength, durability, elegance, and cheapness. It is suitable for all carriages, the heaviest and the lightest vehicle; also to gun carriages, from the easy way it can be conveyed in small cases, and repaired in case of accident, for, by unscrewing the nuts (G), and removing the front stock (D), any spoke or felloe can be immediately replaced.

L'essieu (A) est maintenu en sa place par le collier (B), qui se compose de deux demi-segments. Le collier (B) est lui-même maintenu en sa place par la calotte en métal à canon (C), qui se visse dans le moyeu extérieur (D), et qu'empêche de tourner une vis de maintien (X). L'essieu est constamment lubrifié par l'huile fournie au trou de vis (E) sur le moyeu postérieur (F). Les écrous (G) retiennent les rayons fixés à l'arcade.

Cette roue diffère de toutes les autres par la simplicité de son principe. Ses avantages sur l'ancienne roue sont sa légèreté, sa solidité, sa durabilité, son élégance, et son bon marché. Elle convient pour toutes les voitures, les plus lourdes comme les plus légères; ainsi que pour les affûts de canon, en raison de sa facilité de transportation en petites caisses, et de réparation en cas d'accident, car, en dévissant les écrous (G) et enlevant le moyeu antérieur (D), tout rayon ou toute jante peut se remplacer immédiatement.

RUSSELL & CO., *Patent Sectional Wheel and Axle Factory, Esher-street, Westminster, London, S.W.*

The spokes are not mortised into the stocks, but they abut against each other (as at A), forming a wood arch, which prevents shrinking, displacement, or rattling; so that every concussion is equally distributed through the entire arch, and thus every spoke bears its own share of the work.

The metal stocks (see axle, D and F) being in two parts, may be removed to examine the condition of the spokes at the arch, and an extra turn of the nuts (G) will keep the spokes solid and dry. The hollow tire (H) has also great advantages. It cannot possibly come off, it protects the sides of the felloes, and requires no rivets.

RUSSELL's wheels are easily fixed to any old axle by a wood stock in the place of the metal stock. It should be observed that RUSSELL's Patent Axle is extremely simple, producing less friction, and requiring no removal of wheels in order to grease, from the power of self-supplying oil at the screw-hole (E). The wheels are in use under omnibuses, cabs, and all other carriages, and are giving complete satisfaction.

Orders received at the Factory, and licences granted to the trade. Some of the foreign patent rights are still to be disposed of. Applications to be made at the Factory, London, or through RUSSELL & Co.'s agent, W. UNDERWOOD, 18 Rue du Mail, Paris, and 42 Rue Zerezo, Brussels.

Les rayons ne sont pas emmortaisés dans les moyeux, mais sont aboutés les uns aux autres (comme en A), formant une arcade en bois qui empêche le retrait, le déplacement et le bruit, de sorte que chaque concussion se distribue également dans l'arcade entière, et que chaque rayon supporte sa propre part de travail.

Les moyeux en métal (voir essieu, D et F) étant construits en deux parties peuvent d'enlever pour examiner la condition des rayons de l'arcade, et un tour de plus des écrous (G) maintiendra les rayons solides et secs. La bande creuse (H) offre aussi de grands avantages. Il est de toute impossibilité qu'elle parte, elle protège les côtés des jantes, et ne requiert pas de rivets.

Les roues fabriquées par RUSSELL se fixent facilement à tout vieil essieu au moyen d'un moyeu en bois au lieu du moyeu en métal. On fera aussi observer que l'essieu breveté de RUSSELL est extrêmement simple, produit un frottement moins considérable, et ne demande pas l'enlèvement des roues pour être graissé, par suite de sa propriété de s'alimenter de lui-même d'huile au trou de vis (E). Les roues de RUSSELL sont en usage pour les omnibus, fiacres, et tous autres véhicules, et donnent la satisfaction la plus complète.

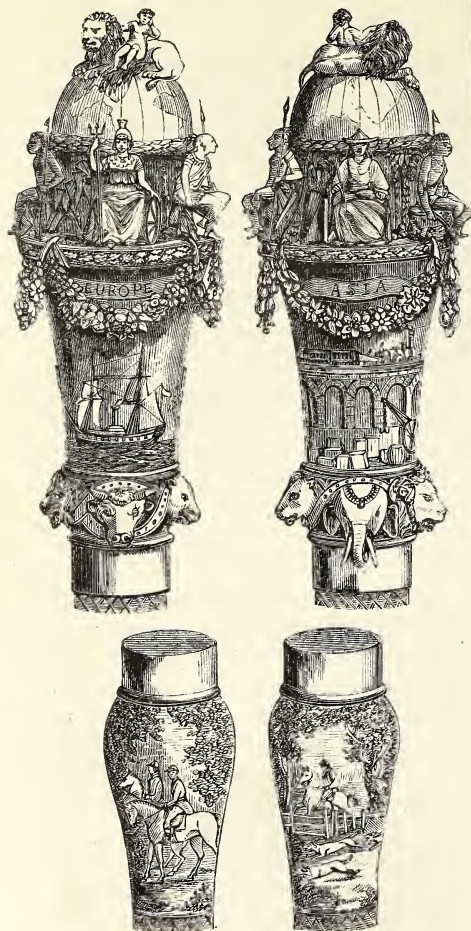
Commandes reçues à la Manufacture, et licences accordées au commerce. Quelques-uns des droits de brevet étranger peuvent encore être cédés. S'adresser à la Manufacture, à Londres, ou à l'agent de RUSSELL ET CIE., W. UNDERWOOD, 18 Rue du Mail, Paris, et 42 Rue Zerezo, Bruxelles.

SWAINE & ADENEY, 185 Piccadilly, London, w., opposite Burlington House.

By Appointment to the Queen and the Royal Family.

Manufacturers of Whips of all Descriptions, Thongs, Canes, and Sporting Apparatus.
Fabricants de Fouets en toutes formes, Montures de Fouets, Canes et Articles de Sport.
 Fabricanten von Peitschen aller Art, Peitschenschnüren, Rohrstöcken und Jagdgeräthen.

Prize Medals awarded at the International Exhibitions, London, 1851 and 1862, and Dublin, 1865.



Prize racing whips, richly mounted in silver and silver gilt, the mounts illustrative of the universal and pacific character of the Exhibition, and also of equestrian sports.

A gentleman's riding whip, of superior workmanship, mounted in gold, set with precious stones.

Ladies' riding whips, with fan or sun shade attached, of novel construction, also with parasol.

Ladies' and gentlemen's improved patent Arab or 'Chowrie' riding whips, with horse-hair plumes.

Ladies' driving whips, with parasols attached, elegantly mounted.

A general assortment of ladies' and gentlemen's riding, hunting, and driving whips of new patterns and extraordinary finish.

Riding and walking canes, with beautiful and novel mountings.

Agents in Paris—M. E. DARRÉ, 5 Rue du Faubourg St. Honoré; Messrs. CHAS. LAVY & Co., 7 Rue du Mail.

Cravaches pour prix de courses, avec garnitures riches en argent et en doré; sujets appropriés au caractère pacifique et universel de l'Exposition, ainsi qu'aux exercices équestres.

Une cravache de cavalier, d'un travail supérieur, garniture incrustée de pierres précieuses.

Cravaches de dames, portant éventail ou ombrelle, modèle nouveau.

Cravaches arabes, pour dames ou cavaliers, dites 'Chowrie,' brevetées, perfectionnées, avec chasse mouches en crin.

Fouets d'attelage pour dames, munis d'une ombrelle, avec monture élégante.

Assortiment de fouets d'attelage, fouets de chasse, cravaches pour dames et cavaliers, de modèles nouveaux, et d'un fini extraordinaire.

Canes et sticks, avec un beau choix de garnitures des plus riches et des plus nouvelles.

Preis-Wettrennpeitschen, prachtvoll in Silber und vergoldetes Silber gefasst; die Fassungen stellen den allgemeinen und friedlichen Charakter der Ausstellung und ebenso Gegenstände der Reitkunst dar.

Eine Herren-Reitpeitsche von ausgezeichnete Arbeit, in Gold gefasst und mit Edelsteinen besetzt.

Reitpeitschen für Damen, mit Fächer oder Sonnenschirm versehen, von neuer Construction.

Verbesserte Arabische oder 'Chowrie'-Reitpeitschen mit Pferdehaarbusch, für Herren und Damen.

Fahrpeitschen für Damen, mit Sonnenschirm versehen, geschmackvoll gefasst.

Eine allgemeine Auswahl von Reit-, Jagd- und Fahrpeitschen in neuen Mustern und von ausserordentlicher Arbeit, für Herren und Damen.

Reit- und Spazierrohrstöcke, mit schönen und neuen Fassungen.

CLASS LXIII.

'ECONOMIC' PERMANENT WAY COMPANY, 19 Great George-street, Westminster, s.w.

Griffin's Patent Iron Sleepers (never before exhibited).

Traverses en fer, brevetées, de Griffin (n'ont jamais été exposées avant).

Griffin's Patent sleepers are adapted for all forms of rails, and are laid down on the principal lines in England, India, Egypt, South America, Spain, Brazil, Belgium, and many other countries. 30,000 tons are now being manufactured; and they were chosen by the most eminent engineers and contractors, including Mr. Brassey, Messrs. Peto et Betts, Mr. Johnson, Sir Charles Fox, Mr. Woods, Mr. Trevithick, Mr. Russell Shaw, &c. &c., as superior to all others.

'Seaton's' patent saddle rail and iron sleepers have been extensively used on the Great Western and other railways, and have received the highest approval of the engineers.

The Barrow Hematite steel rails, now being extensively adopted.

Ces traverses sont adaptées à toutes les formes de rails, et ont été posées sur les principales lignes ferrées d'Angleterre, de l'Inde, d'Égypte, de l'Amérique du Sud, de l'Espagne, du Brésil, de la Belgique, et de beaucoup d'autres pays. Il s'en fabrique maintenant 30,000 tonnes; et les plus éminents ingénieurs et entrepreneurs, tels que M. Brassey, MM. Peto et Betts, M. Johnson, Sir Charles Fox, M. Woods, M. Trevithick, M. Russell Shaw, etc. etc., ont choisi ces traverses comme étant supérieures à toutes autres.

Le rail et les traverses en fer, brevetés, de Seaton ont été largement employés sur le chemin de fer du Great Western et autres lignes, et ont reçu l'approbation la plus haute des ingénieurs.

Rails en acier d'hématite de Barrow, d'un usage maintenant très-répandu.

OWEN'S PATENT WHEEL TIRE & AXLE COMPANY (LIMITED).

(Late WILLIAM OWEN.)

Phoenix Iron Works, Rotherham, Yorkshire, England.

Manufacturers of Arbel's patent stamped, solid wrought-iron engine, tender, carriage, and wagon wheels.

Crucible and Bessemer cast-steel tires and axles.

Solid weldless tires of best Yorkshire quality.

Patent crescent railway axles.

Railway and marine engineers' wrought and cast ironwork.

Wrought-iron forgings and smiths' work of every description.

London Offices—9 Victoria-chambers, Westminster.

Fabricanten von Arbel's patentirten gestempelten soliden schmiedeeisernen Maschinen-, Tender-, Wagen- und Güterwagen-Rädern;

Radschienen und Achsen von Gussstahl;

Soliden Radschienen ohne Schweissung von bester Yorkshire-Qualität;

Patentirten Halbmond-Eisenbahn-Achsen;

Eisenbahn- und Schiffingenieur-Eisenwerk von Schmiedeeisen und Gusseisen;

Geschmiedetem Eisenwerk und Schmiedearbeit jeder Art.

Londoner Comptoir: 9 Victoria-chambers, Westminster.

Fabricants de roues pour locomotives, tenders, voitures et waggons, en fer massif bocardé et forgé par le procédé d'Arbel, breveté.

Bandes de roues et essieux en acier fondu.

Bandes de roues massives, sans soudure, de la meilleure qualité du Yorkshire.

Essieux encreissant pour chemins de fer, brevetés.

Tous ouvrages en fer forgé et en fonte pour chemins de fer et la marine.

Fers forgés et ouvrages de forgeron de toute espèce.

Bureaux à Londres: 9 Victoria-chambers, Westminster.

Fabbricanti delle ruote patentate di Arbel di ferro battuto solido a stampo, per locomotiva, tender, carrozze, e vagoni.

Cerchioni e sale di acciaio fuso.

Cerchioni solidi senza saldatura a caldo della miglior qualità del Yorkshire.

Sale da ferrovia arcuate patentate.

Lavori in ferro fuso a battuto per ingegneri ferroviari e navali.

Lavori di funica e di fabbro in ferro battuto di ogni genere.

Ufficio in Londra, 9 Victoria-chambers, Westminster.

DERING, GEORGE E. (*Inventor and Patentee*), *Lockleys, Welwyn, Hertfordshire, England.*

Improved Permanent Way of Railways.

Voies Permanentes de Chemins de Fer perfectionnées.

Received, at International Exhibition, 1862, the only Jurors' Award given for Improvements of Permanent Way, and also the Prize Medal in Dublin Exhibition, 1865.

1. Spring Clip Fish-Joints, of tempered steel; affording the advantage of increased strength and smoothness at the joint, by reason of the powerful and uniform pressure of the spring clip. Any wear or loosening that may at any time occur is immediately repaired by the inherent *tendency of the spring clip to collapse*. Safety, simplicity, and economy are likewise insured by the absence of bolts, nuts, &c., and of the necessity for constant attention and labour which they entail—one single piece of metal taking the place of the ten or fourteen separate parts which constitute the ordinary 'fish-joint.' The spring clip, in combination with the spring key described below, or with a key of wrought iron, forms a superior joint, and one very quickly made and taken to pieces.

The figures show the adaptation of the spring clip to rails of the double-headed and bridge sections, and it is applicable to other forms with equal advantage.

2. Spring Keys, of tempered steel; the most important advantages of which consist in the firmness with which they hold the rails, and that whilst possessing every qualification of the wooden key, without its defects, they are calculated to last at least ten times as long. The spring key never becomes loosened by vibration, owing to its unfailing *tendency to expand*, and is totally unaffected by hygrometric changes. It may be used either with intermediate or joint chairs; and forms, with the latter, a rail joint equal to the ordinary 'fish,' at less than one-half the cost.

3. Spring Trenails, of tempered steel; which possess like advantages with the spring keys, in point of efficiency and durability, over both wooden trenails and iron spikes. Owing to its permanent *tendency to expand*, the spring trenail cannot be loosened by vibration, although extracted readily, and without injury, when needful. It is not affected by weather, and cannot be broken by the tangential strain exerted at curves, or otherwise.

Prices on application.

A reçu à l'Exposition Internationale de 1862 le seul Certificat Honoraire décerné par le Jury pour Perfectionnements apportés dans le Maintien des Voies de Chemins de Fer, et aussi la Médaille à l'Exposition de Dublin, 1865.

1. Joints à goujons à pince à ressort, d'acier trempé; offrant les avantages d'accroissement de force et de liant aux joints, en raison de la puissante et uniforme pression de la pince à ressort. Toute usure ou relâchement qui peuvent se produire à un moment quelconque se trouvent immédiatement réparés par la *tendance inhérente à la pince à ressort de s'affaisser*. L'absence de boulons, écroux, etc., assure également la sûreté, la simplicité, et l'économie de ce système, et dispense de la nécessité d'une constante surveillance—une seule pièce de métal prenant la place des dix ou quatorze pièces séparées qui constitue le joint à goujons ordinaire. La pince à ressort, combinée avec la clavette à ressort décrite ci-dessous, compose un joint de qualité supérieure, et qui peut se monter et se démonter rapidement.

Les figures montrent l'adaptation de la pince à ressort aux rails des sections à tête double et à pont, et s'applique avec le même avantage à d'autres formes.

2. Clavettes à Ressort d'acier trempé; leurs avantages les plus importants consistent en la fermeté avec laquelle elles maintiennent le rail, et dans le mérite de durer dix fois au moins aussi longtemps que la clavette en bois, dont elles possèdent toutes les propriétés sans avoir aucun de ses défauts. La clavette à ressort ne vient jamais à branler par suite de la vibration, grâce à son infaillible *tendance à expansion*, et n'est nullement affectée par les changements hygrométriques. Elle peut être employée indifféremment avec coussinets intermédiaires ou coussinets de jonction, et constitue, avec ces derniers, un joint de rail égal au joint à goujons ordinaire, à moins de moitié de dépense.

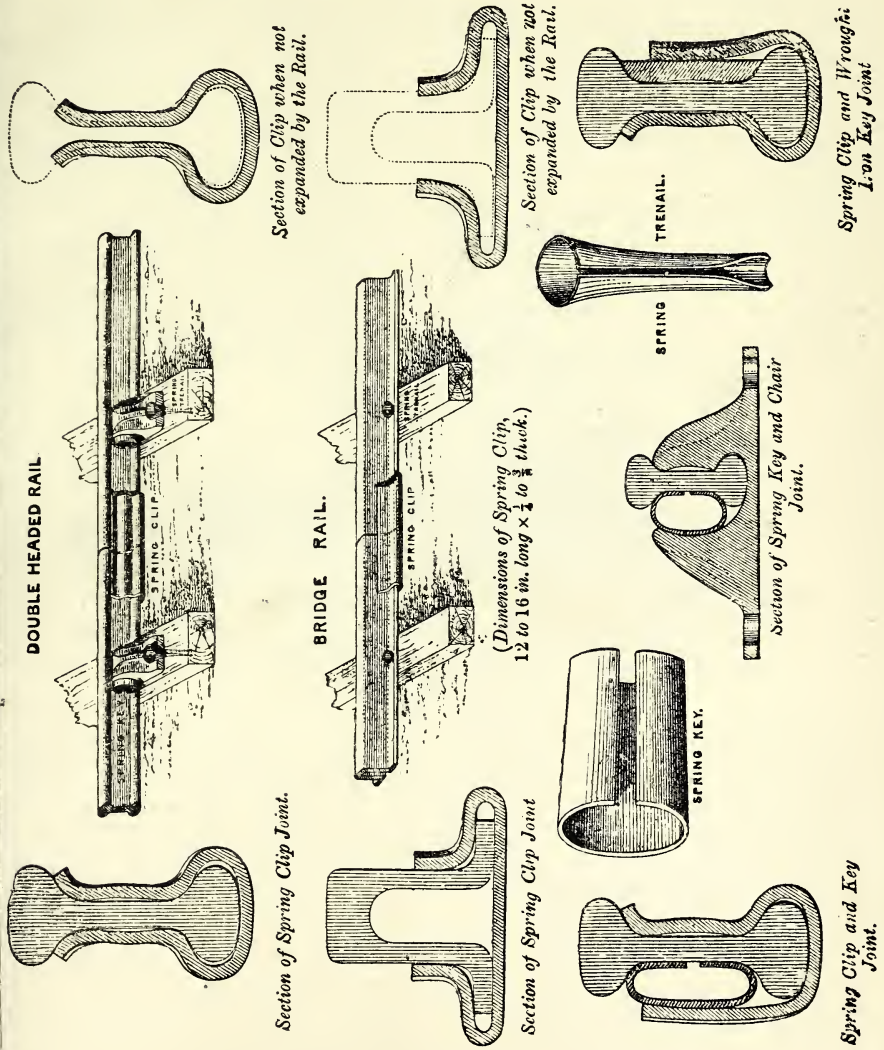
3. Chevilles à ressort, d'acier trempé; possédant les mêmes avantages que les clavettes à ressort, quant à la durabilité et à l'efficacité, sur les chevilles en bois et les fiches en fer. Par suite de sa *tendance permanente à expansion*, la cheville à ressort ne peut se mettre à branler par la vibration, bien que s'étant facilement, et sans dommage, alors qu'il est nécessaire. Elle n'est point non plus affectée par les variations atmosphériques, et ne peut être brisée par l'effort de tangente exercé aux courbes, ou autrement.

Prix sur demande.

DERING, GEORGE E. (*Inventor and Patentee*), *Lockleys, Welwyn, Hertfordshire, England.*

Improved Permanent Way of Railways.

Voies Permanentes de Chemins de Fer perfectionnees.



DOUBLE HEADED RAIL

BRIDGE RAIL.

TRENNAIL.

SPRING

SPRING KEY.

Section of Clip when not expanded by the Rail.

Section of Clip when not expanded by the Rail.

Spring Clip and Wrought Iron Key Joint

Section of Spring Clip Joint.

Section of Spring Clip Joint

Section of Spring Key and Chair Joint.

Spring Clip and Key Joint.

(Dimensions of Spring Clip, 12 to 16 in. long x 1/4 to 3/4 thick.)

POOLEY, HENRY, & SON, *Liverpool.*

Manufacturers of Weighing Machinery.

Constructeurs de Machines à Peser.

Fabricanten von Wiege-Maschinerie.

1. A Railway Weighbridge, of novel construction, possessing the following advantages:—

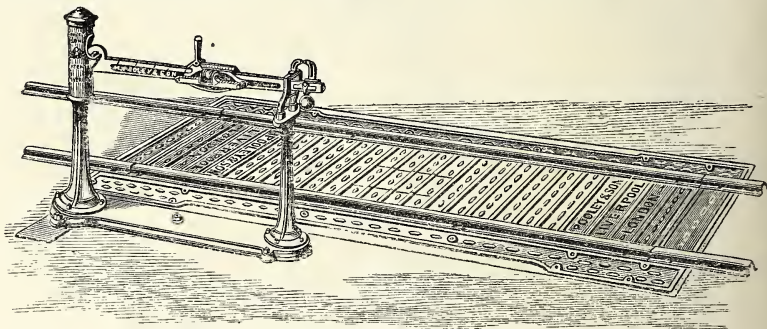
- (1.) The smallest possible depth of pit, and cheapest masonry;
- (2.) Dispenses with all horizontal levers underground, and uses vertical levers, or cams built into the walls, and undamageable;
- (3.) Any number of supporting points may be used, so as to sustain the heaviest loads that can be moved on road or rail;
- (4.) Relieving apparatus rendered superfluous;
- (5.) Friction reduced to a minimum; the weighing platform floats, within certain limits, in every lateral direction;
- (6.) All repairs are effected without disturbing the road, or interrupting traffic.

2. Our ordinary Weighbridge, for rail and road vehicles, so well known in Great Britain, is displayed in drawings.

The new Steelyard is applicable to all classes

1. Un Pont à Basculer pour chemin de fer, de construction nouvelle, possédant les avantages suivants:—

- (1.) La moindre profondeur possible de puit, et la maçonnerie la plus économique;
- (2.) Dispense de tous leviers horizontaux souterrains, et fait usage de leviers verticaux, ou cames, fixés dans les murs, et ne pouvant ainsi point s'endommager;
- (3.) On peut se servir de tout nombre quelconque de points de support, de façon à supporter les charges les plus lourdes qui se puissent transporter sur route ordinaire ou chemin de fer;
- (4.) L'appareil de soulagement rendu superflu;
- (5.) Le frottement réduit à un minimum; la plate-forme à peser flottant, dans de certaines limites, dans toute direction latérale quelconque;



Railway Weighbridge.

of our machines, and is a prominent feature. It is kept in adjustment by a concealed screw, by which we alter the proportions of the instrument, and obviate the awkward method of frequently adding to or taking from the counterweight. The poise is a body sliding upon the steelyard, graduated to show the larger denominations of weights, whilst a cylinder revolved on the poise indicates fractions.

3. The Platform Weighing Machine exhibited is of the smaller kind, but the machines as generally made by us for railway traffic and heavy trades are shown in drawings. Their simplicity, with economy and unrivalled convenience, have induced their general adoption.

4. The Automatic Grain Scale is exhibited in motion. It is entirely self-acting; the sole momentum employed in the several acts of loading, weighing, discharging, and recording, is the weight of the commodity in process of being weighed. The results of any period of work are exhibited with unerring precision upon the register.

(6.) Toutes réparations s'effectuent sans déranger la route et sans interrompre la circulation.

2. Notre Pont à Basculer ordinaire, pour véhicules de route ordinaire et de chemin de fer, est exposé en dessins.

La nouvelle Romaine s'applique à toutes les classes de nos machines, dont elle est un trait proéminent. Elle se maintient ajustée au moyen d'une vis dissimulée, par l'emploi de laquelle nous modifions les proportions de l'instrument, et obviens à la gauche méthode d'ajouter fréquemment au contre-poids ou d'en retrancher. Le pesson consiste en un corps glissant sur la romaine, graduée de façon à montrer les dénominations les plus élevées de poids, tandis qu'un cylindre roulant sur le pesson indique les fractions.

3. La Basculer à Plate-forme, exposée, est du modèle le plus petit, mais celles construites par nous pour le trafic des chemins de fer, et des industries à marchandises lourdes, sont

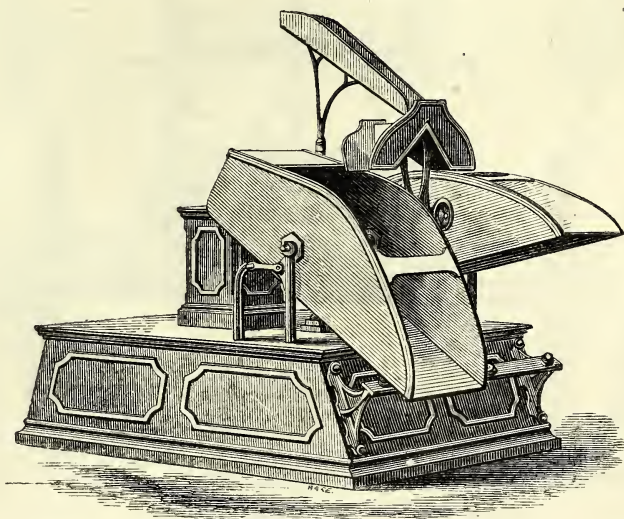
exposées en dessins. Leur simplicité, jointe à leur bon marché et à leur commodité sans rivale, les a fait adopter généralement.

4. La Balance à Grain, Automate, est exposée fonctionnant. Elle est entièrement *self-acting*; le seul poids agissant dans les diverses phases de son action, le chargement, le pesage, le déchargement et l'enregistrement, étant celui de la denrée en train d'être pesée. Les résultats, à toute période quelconque du travail, sont indiqués par le compteur avec une précision infallible.

1. Eine Eisenbahn-Wagebrücke, von neuer Construction, welche die folgenden Vortheile besitzt:—

2. Unsere gewöhnliche Wagebrücke, für Eisenbahn- und andere Wagen, so wohl in Grossbritannien bekannt, ist durch Zeichnungen erläutert.

Der neue Wagebalken ist auf alle Klassen unserer Maschinen anwendbar und ist eine hervorstechende Eigenthümlichkeit derselben. Er wird durch eine verborgene Schraube in Ordnung gebracht, durch welche wir die Verhältnisse des Instruments ändern, und durch welche wir die umständliche Methode, häufig von dem Gegengewichte zu nehmen oder hinzuzufügen, vermeiden. Die Wage ist ein Körper, welcher auf dem Wagebalken hin- und hergleitet, so abgetheilt, dass er die grösseren Gewichtsbezeichnungen angiebt, während ein



Automatic Grain Scale—*Balance à Grain Automate*—Automatische Kornwage.

- (1.) Die geringste Tiefe der Grube, welche möglich ist, und das billigste Mauerwerk;
- (2.) Alle horizontalen unterirdischen Wagebalken sind unnöthig geworden, und man braucht anstatt verticale oder in die Mauer gebaute und unverwüsthliche Kammräder;
- (3.) Man kann eine beliebige Anzahl von Stützpunkten anwenden, so dass die schwersten Lasten, welche in Strassen oder auf Eisenbahnen bewegt werden können, darauf ruhen können;
- (4.) Der erleichternde Apparat ist überflüssig geworden;
- (5.) Reibung ist bis auf das geringste Mass reducirt; die Wiege-Plattform bewegt sich, innerhalb gewisser Grenzen, nach allen Seiten;
- (6.) Alle Reparaturen können ausgeführt werden, ohne den Weg abzusperren oder den Verkehr zu unterbrechen.

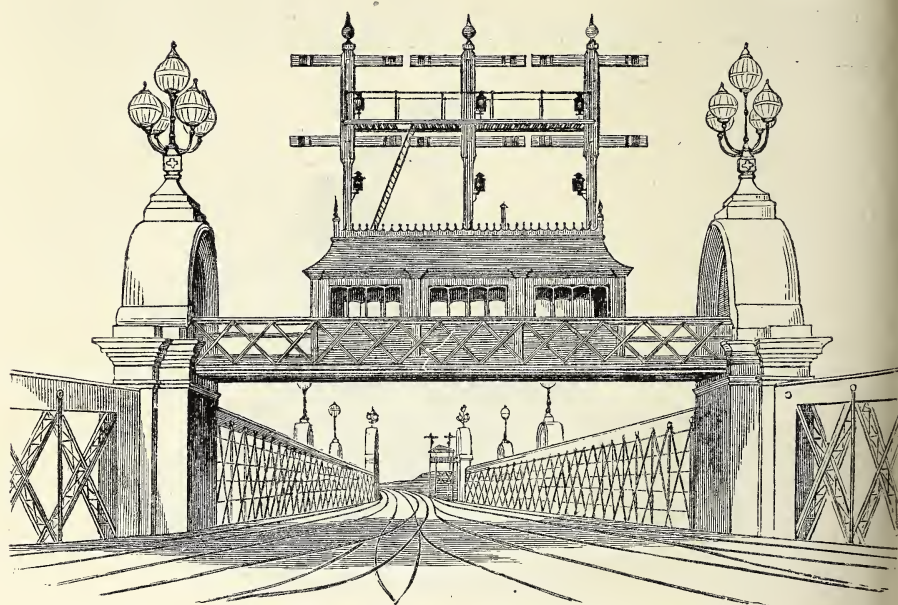
auf der Wage sich umdrehender Cylinder Bruchtheile anzeigt.

3. Die ausgestellte Plattform-Wagemaschine ist von einer kleineren Art, aber dienvon uns allgemein für Eisenbahnverkehr oder schwere Lastenbeförderung gebauten Maschinen sind durch Zeichnung dargestellt. Ihre Einfachheit, nebst Ersparniss und unvergleichlicher Bequemlichkeit, hat ihr allgemeinen Gebrauch erworben.

4. Die automatische Kornwage ist in Thätigkeit ausgestellt. Sie ist vollkommen selbstbewegend; der einzige angewandte Bewegungstrieb in den verschiedenen Verrichtungen des Füllens, Wiegens, Entleerens und Anmerkens ist das Gewicht der zu wiegenden Waare. Die Resultate irgend einer Arbeitsdauer werden mit unfehlbarer Genauigkeit auf dem Register dargestellt.

SAXBY & FARMER'S PATENT RAILWAY SIGNALS.

(CHARING CROSS STATION, LONDON.)



Safety and Economy.

See working model, Group VI. Class 63,
Paris Universal Exhibition, 1867.

Sécurité, Économie.

Voir le modèle fonctionnant, Groupe VI. Classe
63,

Exposition Universelle de Paris, 1867.

Sicherheit und Sparsamkeit.

Siehe das arbeitende Modell, Gruppe VI.
Klasse 63, in der Pariser Universal-
Industrie-Ausstellung, 1867.

Sicurezza ed Economia.

Vedasi il modello in azione, Gruppo VI. Classe
63,

Esposizione Universale di Parigi, 1867.

SAXBY & FARMER'S PATENT RAILWAY SIGNALS.

Copy of Recommendation by Captain Tyler, Royal Engineers, Government Inspector of Railways.

‘Board of Trade, s.w.

‘The system of Messrs. SAXBY & FARMER, for preventing accidents on railways, at junctions and other places, by interlocking points and signals, has of late years been extensively adopted on English railways, and has been productive of greatly increased security, particularly at complicated junctions and stations. The Charing Cross Railway, the London Bridge Station, the Stewart's-lane Junction of the London, Chatham, and Dover with the Brighton Railway, &c. &c. may be cited as examples.

‘I have had occasion to report officially frequently, and very favourably, of the system, and to recommend its adoption and extension on English, as I do confidently on French, railways.

(Signed)

‘H. W. TYLER,
Captain, Royal Engineers.’

Copie de Recommandation émanant du Capitaine Tyler, du Corps des Ingénieurs Royaux, Inspecteur Gouvernemental des Chemins de Fer.

‘Ministère du Commerce, s.w.

‘Le système de MM. SAXBY et FARMER, tendant à prévenir les accidents sur les chemins de fer, aux points de jonction et autres, par des aiguilles et signaux s'entrefermant, a été largement adopté dans ces dernières années sur les chemins de fer anglais, et a considérablement accru la sécurité, particulièrement aux stations et points des jonctions les plus compliquées. On peut citer, pour exemples, le Chemin de fer de Charing Cross, la station de London Bridge, l'Embranchement, à Stewart's-lane, du chemin de Londres, Chatham et Douvres avec celui de Brighton, etc. etc.

‘J'ai eu l'occasion de faire de fréquents et favorables rapports officiels sur ce système, et de recommander son adoption et son application plus étendue sur les chemins de fer d'Angleterre, ainsi que je le fais avec confiance pour ceux de France.

(Signé)

‘H. W. TYLER,
Capitaine au Corps des Ingénieurs Royaux.’

Abschrift der Empfehlung von Capitain Tyler, in dem Königlichen Ingenieur-Corps, Regierungs-Eisenbahn-Inspector.

‘Handelsministerium, s.w.

‘Das System der Herren SAXBY & FARMER, für die Verhütung von Unglücksfällen auf Eisenbahnen, an Verbindungs-Stationen und andern Plätzen, durch abschliessende Punkte und Signale, ist während der letzten Jahre sehr ausgebreitet auf Englischen Eisenbahnen eingeführt worden und hat viel grössere Sicherheit, namentlich auf verwickelten Zweigstationen und Bahnhöfen, hervorgebracht. Die Charing-Cross-Eisenbahn, der London-Bridge-Bahnhof, die Stewart's-Lane-Verbindungs-Station der London-, Chatham- und Dover- mit der Brighton-Eisenbahn u. s. w. u. s. w. können als Beispiele angeführt werden.

‘Ich habe Gelegenheit gehabt, sehr häufig, und sehr günstig, über das System amtlich zu berichten, und seine Anwendung und Verbreitung auf Englischen Eisenbahnen zu empfehlen, was ich auch für Französische Eisenbahnen thun kann.

(Gezeichnet) ‘H. W. TYLER,

‘Capitain in dem Königlichen Ingenieur-Corps.’

Copia di Commendatizia del Capitano Tyler, del R. Genio Militare, Ispettore Governativo delle Ferrovie.

‘Ministero del Commercio, s.w.

‘Il sistema dei Signori SAXBY e FARMER, per impedire le disgrazie nelle ferrovie alle deviazioni ed altri luoghi, per mezzo di punti e segnali coincidenti, è stato negli anni recenti estesamente adottato nelle ferrovie inglesi, ed è stato causa di sicurezza grandemente aumentata, particolarmente alle stazioni e deviazioni complicate. Come esempi, si possono citare la Linea di Charing Cross, la Stazione di London Bridge, la Deviazione di Stewart's-lane della Linea London, Chatham e Dover dalla Ferrovia di Brighton, ecc. ecc.

‘Ho avute frequenti occasioni di far rapporti ufficiali, e favorevolissimi di questo sistema e di raccomandarne l'adozione e l'estensione nelle ferrovie inglesi, cioèchè faccio anche con piena fiducia pelle francesi.

(F.)

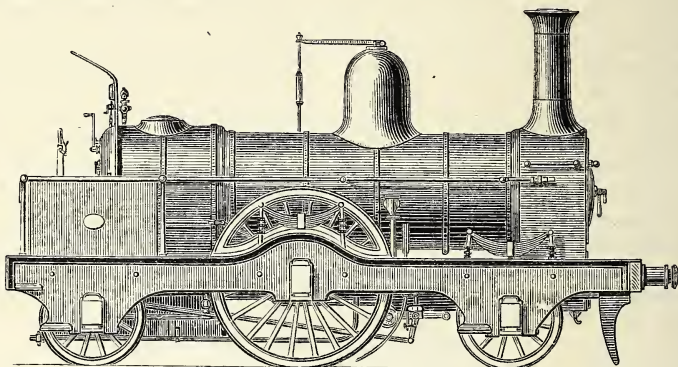
‘H. W. TYLER,
‘Capitano del R. Genio Militare.’

STEPHENSON, ROBERT, & CO., Newcastle-upon-Tyne.

London Office—CHARLES MANBY, F.R.S., 24 Great George-street, Westminster.

Engineers, Machinists, and Iron and Brass Founders; Manufacturers of Locomotive, Marine, and Stationary Engines; Contractors for Iron Vessels, Bridges, Girders, &c. &c. &c.

Ingénieurs, Constructeurs de Machines, et Fondateurs en Fer et en Cuivre; Constructeurs de Locomotives, Machines à Vapeur Fixes, et pour Navires; Entrepreneurs de Construction de Navires, Ponts, Longrines, etc. etc. etc., en Fer.



Express Passenger Engine, No. 2,012—Locomotive pour Trains Express de Voyageurs, No. 2,012.

Exhibited by the gracious permission of His Highness the Viceroy of Egypt, as a specimen of the engines employed on the Egyptian Government railways.

Cylinders 16 inches diameter and 22 inches stroke; leading and trailing wheels 3 feet 9 inches diameter; driving wheels 6 feet 6 inches diameter. Boiler constructed of thick-edged plates, butt-jointed and double rivetted; adapted for working under a pressure of 160 pounds per square inch. This engine is of the type of the majority of the rolling stock on the Egyptian Government railways for which it is intended.

The engine works at Newcastle-on Tyne were founded in the year 1823, by GEORGE STEPHENSON, the railway engineer, and his son, ROBERT STEPHENSON, whose engine 'The Rocket,' one of the earliest machines of that class constructed at the factory, gained the prize in the celebrated competition of locomotive engines before the opening of the Liverpool and Manchester Railway.

ROBERT STEPHENSON greatly extended the works, and carried them on until his decease in 1859. They have since been conducted by his cousin and successor, GEORGE ROBERT STEPHENSON, who had for many years previously taken an active part in the management. Under his direction they have been much extended, so that the capability of production of machinery of all kinds is greater than at any former period.

Exposée avec la gracieuse permission de Son Altesse le Viceroy d'Égypte, comme spécimen des machines en usage sur les chemins de fer du Gouvernement Egyptien.

Cylindres de 16 pouces—40,64 c.—de diamètre et de 22 pouces—55,88 c.—de course; roues dirigeantes et de support de 3 pieds 9 pouces—1,14 m.—de diamètre; roues motrices de 6 pieds 6 pouces de diamètre—1,98 m. Chaudière construite en tôles à arêtes épaisses, jointes bout à bout et à doubles rivets; faite pour fonctionner sous une pression de 160 livres—72 kilogr. 640 gr.—par pouce carré—6,45 c. carrés. Cette machine est le type de la plus grande partie du matériel roulant des chemins de fer du Gouvernement Egyptien auxquels elle est destinée.

Les usines à construire des machines à vapeur, à Newcastle-on-Tyne, furent fondées dans l'année 1823 par GEORGE STEPHENSON, l'ingénieur de chemins de fer, et son fils, ROBERT STEPHENSON, dont la machine 'The Rocket'—La Fusée—une des premières de cette classe construites à la fabrique, remporta le prix dans le célèbre concours de machines locomotives qui précéda l'ouverture du chemin de fer de Liverpool à Manchester.

ROBERT STEPHENSON augmenta considérablement ces usines, et demeura à leur tête jusqu'à sa mort en 1859. Elles ont depuis été dirigées par son cousin et successeur, GEORGE ROBERT STEPHENSON, qui durant nombre d'années antérieures avait pris une part active à leur exploitation. Sous sa direction, elles ont pris une si vaste extension que leur capacité de production de machines de toutes espèces est plus grande qu'à aucune période précédente.

SPENCER, JOHN, & SONS, *Newburn Steel Works, Newcastle-on-Tyne.**London Office—124 Fenchurch-street.*

Manufacturers of every description of steel and files; cast-steel rings for hooping ordnance, cast and hammered in the ring.

Laminated bearing and buffing springs for locomotive engines, railway carriages, and waggons. Spiral springs.

Baillie's patent volute springs.

Spencer's patent improved volute springs.

Patent volute spring buffers with cast and wrought iron cases for locomotive engines, railway carriages, and waggons.

Manufacture toutes espèces d'acier et de limes; cercles en acier fondu pour relier les pièces d'artillerie, fondus et forgés dans le cercle.

Ressorts de support et de tampons, laminés, pour locomotives, voitures de chemins de fer et wagons. Ressorts en spirale.

Ressorts en volute de Baillie, brevetés.

Ressorts en volute perfectionnés de Spencer, brevetés.

Tampons à ressorts en volute, brevetés, avec boîtes en fonte et fer forgé, pour locomotives, voitures de chemins de fer, et wagons.

Fabricanten von jeder Art von Stahl und Feilen; Ringen für Geschützreifen von Gussstahl, gegossen und gehämmert im Ring;

Platten-Trag- und Stossfedern für Locomotiven, Eisenbahnwagen und Güterwagen Spiralfedern;

Baillie's volutirte Patent-Sprungfedern;

Spencer's volutirte Patent-Sprungfedern, mit neueren Vervollkommnungen.

Patentirten Schneckenfeder-Buffern, mit guss- und schmiedeeisernen Büchsen für Locomotiven, Eisenbahnwagen und Güterwagen.

Fabbrica di ogni specie di acciaio e lime, cerchi d'acciaio fuso per cerchiare artiglieria fusi e battuti nel cerchio.

Molle laminate di sostegno e per ziffi di locomotive, carrozze e vagoni ferroviari. Molle spirali.

Molle a volute patentate di Baillie.

Molle a volute perfezionate di Spencer patentate.

Ziffi con molle a volute patentati con cassa in ferro fuso e battuto per locomotive, carrozze, e vagoni ferroviari.

CLASS LXV.

ENAMELLED CEILINGS.

SUGGESTED BY HENRY COLE, C.B.

These ceilings were invented to answer the requirements of the South Kensington Museum, where much gaslight is used, and where the greatest precautions against fire are necessary. Instead of using wooden laths between the iron girders of the floor, and making the floor of concrete and the ceiling of plaster, the ena-

melled ceiling supports the concrete and supercedes the plastering. These ceilings may be made either of pottery or of iron, enamelled. They are much more easily cleaned and are more fireproof than the old mode, and admit of any amount of decoration that may be required.

MODEL OF THE CENTRAL HALL OF ARTS AND SCIENCES.

To be erected on the estate of Her Majesty's Commissioners for the Exhibition of 1851, at Kensington.

The design for the building is by Lieut.-Col. Scott, R.E., assisted by Mr. G. Townroe, artist. It is based on ideas originated by the late Capt. Fowke, R.E.

The plan of the building is elliptical in form. The main walls are of brick, the exterior of red brick with terra cotta enrichments, chiefly of a buff tint. The roof is of wrought iron covered with lead, with a central skylight. The floors, stairs, and all partitions are fire-proof.

Access to and egress from different parts of the building are provided for by numerous separate entrances and staircases.

Immediately over the upper tier of boxes is a corridor 20 feet wide which can be used either for the exhibition of pictures, sculpture, or other

objects, or it can be seated for an audience. An upper corridor, also 20 feet wide, and top lighted can be similarly used.

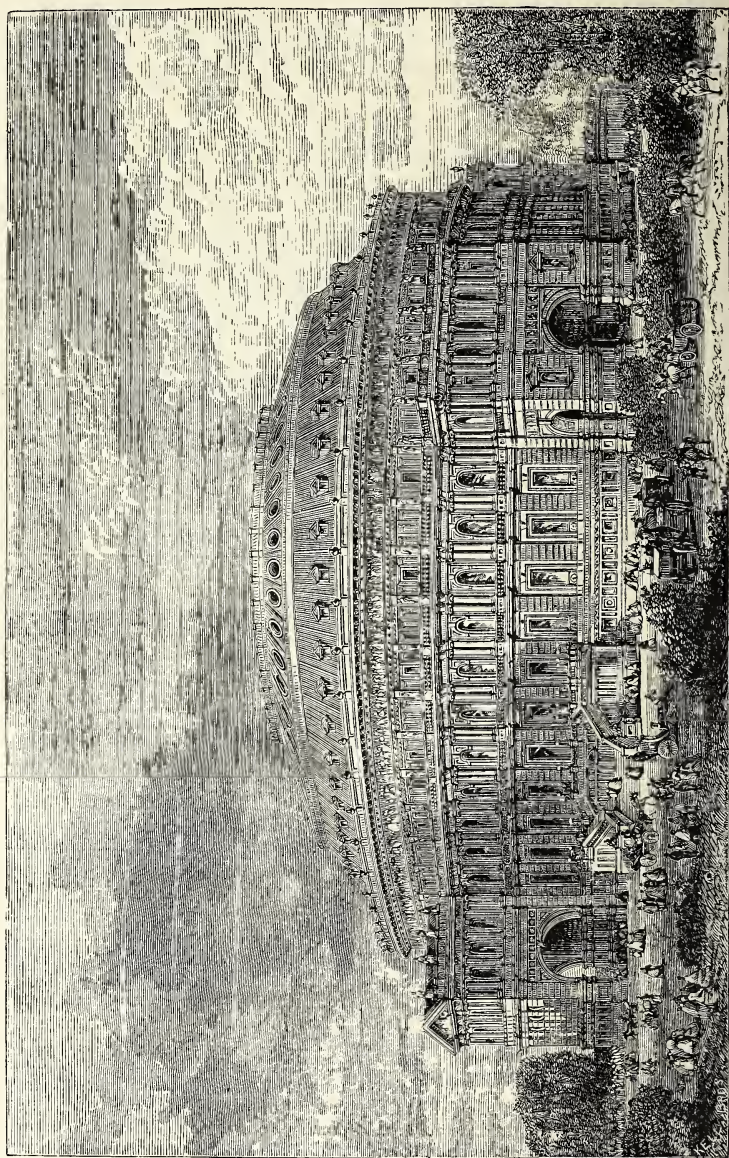
The boxes are each provided with a separate room to which access is gained from corridors 9 feet in width.

Below the boxes is a spacious amphitheatre: and an area 103 feet long, and 68 feet wide, measured on the axes of the ellipse, occupies the centre of the building. Small lecture and concert rooms, refreshment and retiring rooms, and offices for societies using the hall, are contained between the outer wall and that of the hall itself. The cost of the building is estimated at 200,000*l.* Views are annexed.

The hall is to be erected under the direction of a provisional committee, of which His Royal Highness the Prince of Wales is chairman;

and its management is invested in a governing body acting under the authority of a Royal Charter. It will be used for the following objects:—

Congresses, both national and international, for purposes of science and art. Performances of music, both choral and instrumental, including performances on the organ similar to those



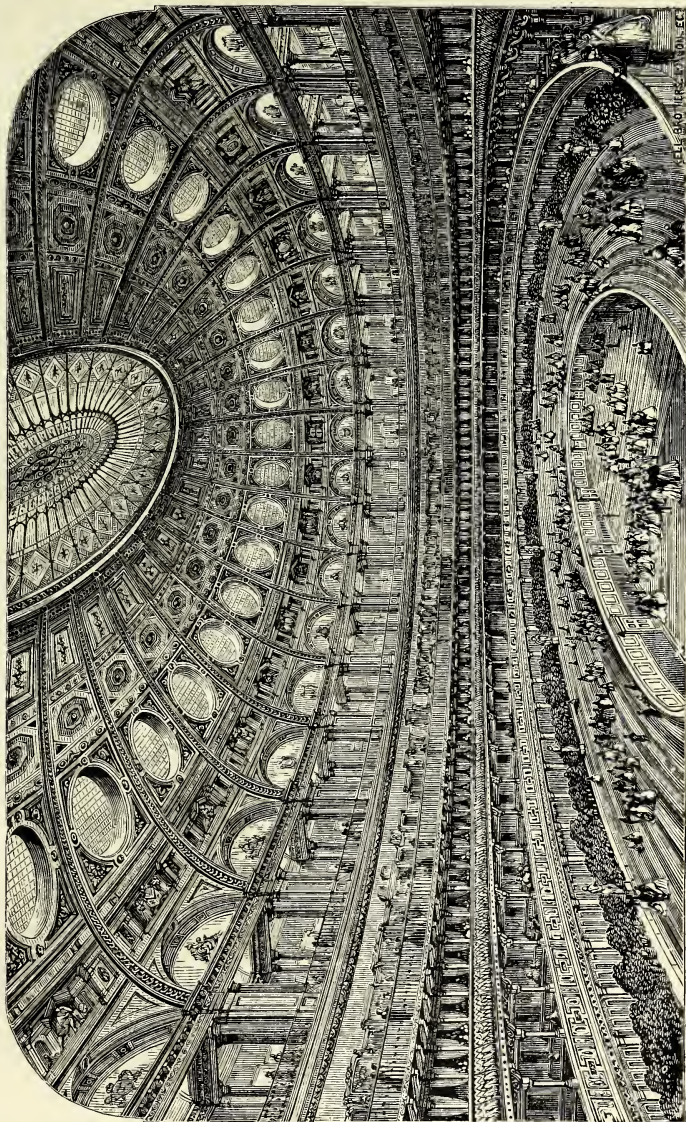
now given in various large provincial towns, such as Liverpool and Birmingham. The distribution of prizes by public bodies and societies. Conversazioni of societies established for the promotion of science and art.

Agricultural and horticultural exhibitions. National and international exhibitions of works of art and industry, including industrial Exhibitions by the working classes similar to those recently held successfully in various parts

of London. Exhibitions of pictures, sculpture, and other objects of artistic or scientific interest, or any other purposes connected with science and art.

The site for the hall is granted by Her Majesty's Commissioners for the Exhibition of

1851, and the necessary funds for erecting it are being raised by the sale of seats. The seats which are not sold will be at the disposal of the governing body, and the revenue arising from letting them will be applied to the maintenance of the hall, and to defraying the



expense of carrying into effect the objects for which the hall is erected. Of the 6,000 sittings which it will contain it is proposed to sell 2,000. The portion of the hall set apart for the orchestra contains seats for 1,000 performers, not included

in the above estimate, and these seats will be also available for the public when the orchestra is not required.

The model was made by Messrs. Jackson & Sons, of Rathbone-place, Oxford-street.

ARCHITECTURAL MUSEUM, SOUTH KENSINGTON, LONDON.

[See also Appendix, p. 259.]

Prize Objects in Arts cognate to Architecture, by various British Art workmen in the competition held in the year 1866.

STONE CARVING.

- 1st Prize, 20l.—Arthur N. Harris
2nd Prize, 5l.—John Seymour
Extra Prize, 1l. 1s.—T. Sharp

WOOD CARVING.

- Supplementary Prize, 10l.—W. Wormleighton

SILVER WORK.

- 1st Prize, 15l.—W. Holliday

TRANSPARENT ENAMEL.

- 1st Prize, 10l.—Frederick Lowe

OPAQUE ENAMEL.

- Prize, 10l.—Frederick Lowe

MARBLE MOSAIC.

- Prize, 10l.—George Rooke

MODELLING IN CLAY.

- 1st Prize, 5l.—R. W. Martin
2nd Prize, 2l.—J. W. Gould

SOCIETY FOR THE ENCOURAGEMENT OF
ARTS, MANUFACTURES AND COMMERCE, JOHN
STREET, ADELPHI, LONDON.

*Objects for which Prizes were awarded
to Art Workmen in the Competitions
of the Years 1864-65-66—Purchased
for the South Kensington Museum.*

CARVING IN MARBLE, ETC.

- 1st Prize, 1865, 15l.—Bracket, marble; G. T. Sherborne

CARVING IN IVORY.

- 1st Prize, 1864, 10l.—Plaque, with figure of a monk reading; J. W. Bentley

REPOUSSÉ WORK IN METAL.

- 1st Prize, 1864, 5l.—Salver, gilt metal, with border of foliage; G. Webster
1st Prize, 1866, 5l. (extra 3l.).—Tazza, silver, with four figures; S. Beresford

HAMMERED WORK IN IRON, ETC.

- 1st Prize, 1865, 7l. 10s.—Bracket, wrought iron, scroll foliage; F. Winstanley
2nd Prize, 1865, 5l.—Bracket, brass, scroll foliage; Julius Zobel
1st Prize, 1866, 7l. 10s.—Bracket, wrought iron, scroll foliage; W. Letheren

CHASING ON METAL (FIGURE).

- 1st Prize, 1864, 10l.—Bust of Psyche, copper; W. Holliday
1st Prize, 1865, 10l.—Bust, the 'Clytie,' bronze; J. Nichols

CHASING ON METAL (ORNAMENT).

- 1st Prize, 1864, 5l.—Plaque with foliage, bronze; G. R. Meek
1st Prize, 1865, 10l.—Frieze, bronze, with foliage, grapes, &c.; R. E. Barrett

ETCHING AND ENGRAVING ON METAL.

- 1st Prize, 1865, 10l.—Plaque, silver, with sphinxes, &c.: after Lucas van Leyden; G. MacKenzie
2nd Prize, 1866, 5l.—Plaque, silver, with sphinxes, &c.: after Lucas van Leyden; G. S. Berry

PAINTING ON PORCELAIN (FIGURE).

- 1st Prize, 1864, 10l.—A Child bearing two pigeons: after Raphael; E. E. Dunn

PAINTING ON PORCELAIN (ORNAMENT).

- 2nd Prize, 1864, 3l.—Panel, arabesques, &c.; J. B. Evans
1st Prize, 1865, 5l.—Panel, arabesques, &c.; J. B. Evans
1st Prize, 1866, 5l. Panel, arabesques, &c.; A. Fisher

INLAY IN METAL.

- 1st Prize, 1865, 5l.—Panel, copper inlaid with silver; E. M. Millward

WALL MOSAIC.

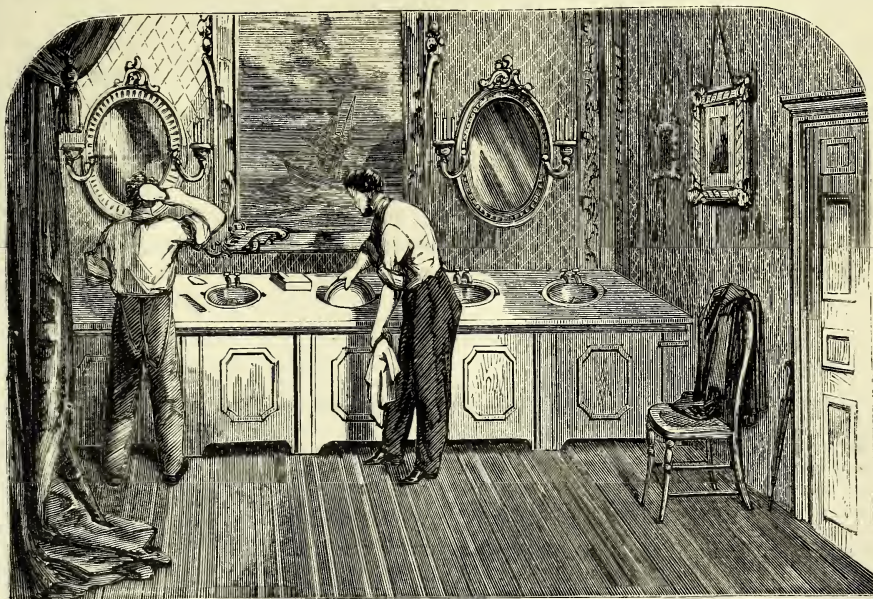
- 1st Prize, 1865, 15l.—Panel, head of a saint; S. Cooper

BOOKBINDING.

- 1st Prize, 1865, 7l. 10s.—Book, bound in morocco, tooled and inlaid in Grolier style; L. Genth
1st Prize, 1866, 7l. 10s.—Book bound in calf, tooled and inlaid in Grolier style; J. Jeffery.

JENNINGS'S LIFT-UP LAVATORIES,

As arranged for Retiring-Rooms, Hotels, Clubs, Railway Stations, and other Public Buildings.



GEORGE JENNINGS respectfully invites attention to his hydraulic, sanitary, building, and domestic appliances in Class 65, Civil Engineering and Public Works, where may be seen many articles tending to comfort and health.

He also begs to state that his manufactures having been selected by the Royal Commissioners for the Retiring Rooms of the British Section of the Exhibition, they may be there inspected, and their value estimated.

GEORGE JENNINGS, *Sanitary Engineer, Palace Wharf, Stangate, London, s.*

Paris Agents—FORTIN HERMANN FRÈRES, 98 Boulevard du Mont Parnasse.

GEORGE JENNINGS a l'honneur d'appeler l'attention sur ses appareils hydrauliques, de salubrité, pour édifices, et domestiques, exposés dans la Classe 65, Génie Civil et Travaux Publics, où se peuvent voir de nombreux articles tendant au confort et à la santé.

Il a aussi l'honneur d'ajouter que ses produits ont été choisis par les Commissaires Royaux pour les Cabinets privés de la Section Anglaise de l'Exposition, où ils peuvent être examinés, et appréciés à leur valeur.

GEORGE JENNINGS, *Ingénieur Sanitaire, Palace Wharf, Stangate, London, s.*

Agents à Paris—FORTIN HERMANN FRÈRES, 98 Boulevard du Mont Parnasse.

GEORGE JENNINGS erlaubt sich, die Aufmerksamkeit des Publicums auf seine hydraulischen, Gesundheits-, Bau- und Hauswirthschaftsvorrichtungen, in Klasse 65, Civilingenieurkunst und öffentliche Bauten, ausgestellt, wo viele zur Gesundheit und Bequemlichkeit dienende Artikel in Augenschein genommen werden können, zu lenken.

Er erlaubt sich gleichfalls, anzuzeigen, dass, da seine Erzeugnisse von der königlichen Commission für die Retraits der Britischen Abtheilung der Ausstellung ausgewählt worden sind, man dieselben dort in Augenschein nehmen und ihren Werth selbst schätzen kann.

GEORGE JENNINGS, *Gesundheits-Ingenieur, Palace Wharf, Stangate, London, s.*

Pariser Agenten—FORTIN HERMANN FRÈRES, 98 Boulevard du Mont Parnasse.

GEORGE JENNINGS invita rispettosamente l'attenzione del pubblico ai suoi apparati idraulici, sanitari, per edifizii, e domestici, alla Classe 65, Genio Civile e Lavori Pubblici, ove sono esposti vari oggetti interessanti il conforto e l'igiene.

Desidera inoltre fore avvertire che gli oggetti di sua fabbricazione essendo stati scelti della Commissione Reale per i Camerini della Sezione Britannica dell'Esposizione, potranno esser ivi ispezionati e giustamente apprezzati.

GEORGE JENNINGS, *Ingegnere Sanitario, Palace Wharf, Stangate, London, s.*

Agenti in Parigi—FORTIN HERMANN FRÈRES, 98 Boulevard du Mont Parnasse.

MEMORIAL OF THE PRINCE CONSORT IN HYDE PARK.

THIS MEMORIAL OF THE LATE PRINCE CONSORT, DESIGNED BY G. G. SCOTT, R.A., IS NOW IN COURSE OF ERECTION IN HYDE-PARK, CLOSE TO THE SPOT ON WHICH THE GREAT EXHIBITION BUILDING OF 1851 FORMERLY STOOD.

The ground plan of the Memorial is square. A broadly stretching flight of steps, having at each angle a group of statues emblematical of the Four Quarters of the Earth, supplies a platform for the whole. Thence rises a second flight, on the summit of which stands the *podium* of the monument itself, the angles of which are advanced diagonally to form bases for a second series of statues suggestive of the Arts of Peace.

The pedestal will be decorated with bas-reliefs illustrating the Fine Arts; those relating to architecture and sculpture, by J. B. Philip, and those referring to poetry, music, and painting by H. H. Armstead.

The lower groups of statues have been entrusted to four sculptors, P. Mac Dowell, R.A., who has undertaken 'Europe'; J. H. Foley, R.A., who will design 'Asia'; W. Theed, 'Africa'; and J. Bell, 'America.'

The upper groups have been placed in the hands of W. C. Marshall, R.A., whose group will represent 'Agriculture'; J. Lawlor, who undertakes 'Engineering'; H. Weekes, R.A., 'Manufactures'; and T. Thorneroyroft, 'Navigation.'

The statue of the Prince Consort, which will be seated, and in the robes of the Garter, by Baron Marochetti, A.R.A., will be placed upon a pedestal in the centre, beneath a rich canopy of Gothic design.

The following granite, marble, &c. are used in the construction of this Memorial:—

IRISH GRANITE.—This granite comes from Castlwellan. It is used for pedestals at angles of steps: steps for central pedestal; bases to

columns, and small caps. Small columns 20 ft. long, in two stones. The number of steps required for construction of the work is 1,152, each 7 ft. 6 in. long.

The bases under the columns, all worked and polished by hand, are each 17 tons weight in the rough, 12 tons when finished.

SCOTCH GRANITE.—This granite is obtained from the 'Ross of Mull,' the Duke of Argyll's estate. It is used for base to podium; sub-plinth under bases to main piers (20 tons, in two stones); large columns (20 ft. long, in two stones); bed moulds of the upper cornice; small columns in the pinnacles. All this granite is of a rich red colour.

CORRENIE GRANITE.—This is obtained from Capt. Gordon's estate, forty miles beyond Aberdeen. It is used for base and capping to central pedestals. This granite is rich, and the hardest that is used.

MARBLE FOR THE PODIUM.—This is the hard Sicilian obtained from the Paleri Quarry, Carrara, belonging to Mr. Fabbriotti. The figures round the podium are all carved out of this marble.

PORTLAND STONE.—This is obtained from the Isle of Portland, all of the very best description from the Maggot Quarry, of a rich cream colour.

CONCRETE.—The concrete in the centre portion 60 ft. square, 17 ft. deep, is composed of gravel, sand, and blue lias lime. It is as hard as rock.

A 'traveller' is employed which will lift 30 tons weight, and a timber scaffold is erected by means of which 10 tons weight can be lifted 90 feet high.

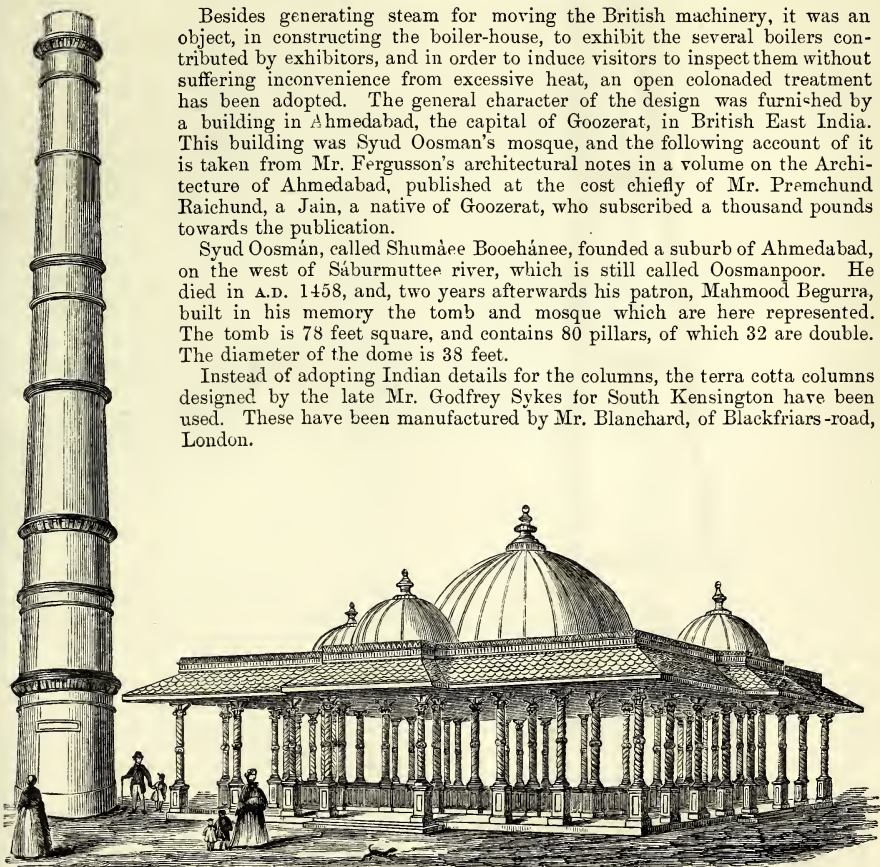
OPEN ORNAMENTAL BOILER-HOUSE AND CHIMNEY-SHAFT

ERECTED BY THE BRITISH EXECUTIVE IN TERRA COTTA AND BRICKWORK, ACCORDING TO A DESIGN SUGGESTED BY THE MOSQUE OF SYUD OOSMAN AT AHMEDABAD, ABOUT 1458 A.D.

Besides generating steam for moving the British machinery, it was an object, in constructing the boiler-house, to exhibit the several boilers contributed by exhibitors, and in order to induce visitors to inspect them without suffering inconvenience from excessive heat, an open colonaded treatment has been adopted. The general character of the design was furnished by a building in Ahmedabad, the capital of Goozerat, in British East India. This building was Syud Oosman's mosque, and the following account of it is taken from Mr. Fergusson's architectural notes in a volume on the Architecture of Ahmedabad, published at the cost chiefly of Mr. Premchund Raichund, a Jain, a native of Goozerat, who subscribed a thousand pounds towards the publication.

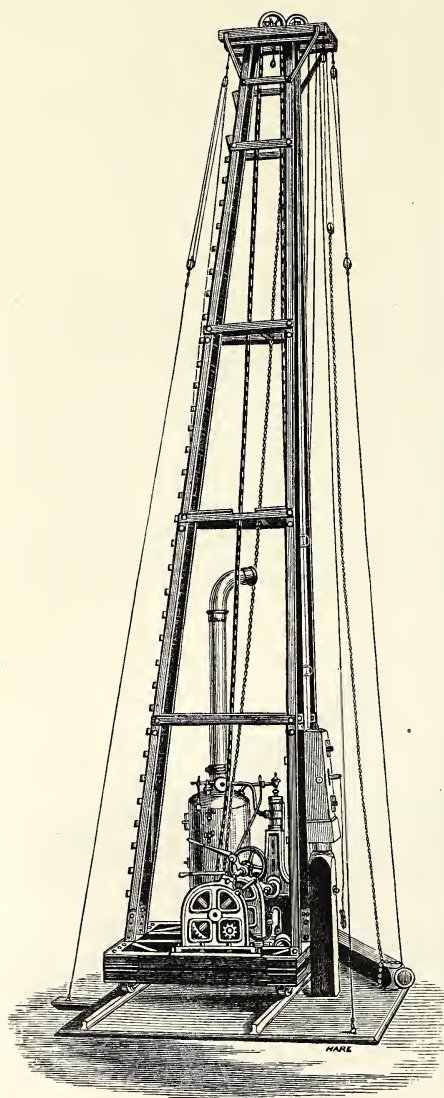
Syud Oosmán, called Shumáee Boeohánee, founded a suburb of Ahmedabad, on the west of Sábúrmútee river, which is still called Oosmanpoor. He died in A.D. 1458, and, two years afterwards his patron, Mahmood Begurra, built in his memory the tomb and mosque which are here represented. The tomb is 78 feet square, and contains 80 pillars, of which 32 are double. The diameter of the dome is 38 feet.

Instead of adopting Indian details for the columns, the terra cotta columns designed by the late Mr. Godfrey Sykes for South Kensington have been used. These have been manufactured by Mr. Blanchard, of Blackfriars-road, London.



SISSONS & WHITE, *Hull, England.*

Patent Steam Pile Driver.



Sissons & White's Steam Pile Driver.

The height of the machine in the annexed drawing is 40 ft. and will pitch a pile 34 ft. long on ground the same level as that on which the machine stands; this height is found to be sufficient for general use, but machines of greater height are made to order.

By a different arrangement in the upright framing, piles can be driven in a tide-way down to a depth of 30ft. below the stage on which the machinery stands, the ram driving quite down to the ground without using a 'dolly,' to dispense with which is a great advantage.

It requires four men to work it, and consumes about 4 cwt. of coal or gas coke in ten hours.

It will be perceived from the annexed engraving that the bottom framing is in two heights—the upper part revolving turntable fashion on the lower one. The machine can thus be faced round to any of the four sides.

The travelling wheels are castors, so that by lifting up each side with a lever the castors can be turned to run on a tramway at any angle.

It is moved by fastening the end of a rope ahead, passing it over a roller under the winch, and taking a turn round the barrel, and is moved with great facility.

The ram usually falls about 12 times in a minute with a 5 ft. lift, and is lifted by means of an eccentric fixed in an opening made in the centre of it, and is made to revolve by a lever, to the outer end of which a cord is attached, and, on being drawn downwards, a bolt is shot out into the open link of the pitched chain in its upward motion. The bolt is withdrawn by the other end of the lever striking against a staple fixed in the front of the guide pieces, and the ram thus released then falls on the pile.

The pile is quickly pitched by attaching a common chain to the pile head.

The total weight of the driver and boiler is 6 tons, including the ram and mountings, which are 20 cwt. The bottom framing of the driver is 7 ft. 6 in. square. Its comparative lightness, and the small space it occupies, make it capable of being worked in any position or circumstances in which a common hand machine can be put, either on land or afloat.

Upwards of seventy of these Drivers have been sold to contractors and others, among which are Mr. Ritson, Mr. Furniss, and Mr. Webster, at the Thames Embankment, Mr. Brassey, London, and Mr. Girard, of Paris, all eminent contractors.

Agent for France—MR. EDWARD COPE, 12, Rue de Strasbourg, Paris

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND
COMMERCE, JOHN-STREET, ADELPHI, LONDON.

Prize-Objects of Art Workmanship by British Workmen.

Selected from the Exhibition of January 1867.

[See also Appendix, p. 254.]

FIRST DIVISION.

WORKS GENERALLY EXECUTED FROM PRE-
SCRIBED DESIGNS.*

- *5. CARVING IN STONE.—Flowers in Caen stone, by W. H. Holmes, 101 Dean-street, Soho, w. Price 5*l.*—(*Prize of 5*l.**)
- *14A. CARVING AND GILDING.—A Mirror Frame, designed and carved by W. M. Holmes, principal part of the flowers by Mouatt (deceased), gilt in double mat and burnished by Messrs. Buchholtz, Venning, Chowne, sen., Ettershank, Connor, and Allen; exhibited by J. H. Wyatt, 101 Dean-street, w. Price 230*l.*—(*Prize of 10*l.**)
15. REPOUSSÉ WORK IN METAL.—Executed in iron, after the Martelli bronze mirror case at South Kensington, by G. Page, 39 Duglas-street, Northampton-road, Clerkenwell, E.C. Price 20*l.*—(1st *Prize of 10*l.**; also, North London Exhibition *Prize*.†)
20. Ditto, Raphael's 'Three Graces,' in copper, by Alexander Dufour, 36 Cleveland-street, Fitzroy-square, w. Price 11*l.*—(*Prize of 4*l.**)
26. HAMMERED WORK IN BRASS, by Albert Edward Millward, 13 New Compton-street, Soho, w.—(*Prize of 6*l.**)
28. HAMMERED WORK IN IRON.—A Bracket, by George Hobbs, 4 Marlboro' Mews, Blenheim-street, w. Price 5*l.* 10*s.*—(*Prize of 2*l.**)
- 30A. Ditto, Panel for a screen, by W. Letheren, Lansdown Iron Works, Cheltenham. Price 20*l.*—(*Prize of 10*l.**)
36. CHASING IN BRONZE.—Bust of 'Clytie,' by T. Nichols, 4 Everilda-street, Hemingford-road, Islington, n. Price 15*l.*—(*Prize of 6*l.**)
39. Ditto, Ornament, after *Goutier*, by H. J. Hatfield, 16 Alfred-street, Tottenham-court-road, w.c. Price 15*l.*—(*Prize of 4*l.**)
- *42. Ditto, Statuette of 'Caractacus,' by H. Hatfield, sen., 46 Bolsover-street, n.w. Produced for the Art Union of London.—(*Prize of 5*l.**)
43. ENGRAVING ON METAL, after arabesques, by G. S. B. Price 3*l.* 10*s.*—(*Prize of 2*l.**)
44. Ditto, by G. Berry, 31 Brewer-street, Golden-square, w. Price 4*l.* 4*s.*—(*Prize of 5*l.**)
- *51. ENAMEL PAINTING ON COPPER.—'Boy and Doves,' after *Raphael*, by Walter J. W. Nunn, 10 Gardour-street, Bromehead-street, Commercial-road, E. Price 5*l.*—(*Prize of 3*l.**)
57. PAINTING ON PORCELAIN.—'Two Children,' by William H. Slater, Oak-hill-cottages, Stoke-upon-Trent. Price 5*l.* 10*s.*—(*Prize of 2*l.**)
- *60. Ditto, plateau in blue, after design by *Maestro Ludovico*, by Alexander Fisher, 5 Clyde-street, Stoke-upon-Trent.—(*Prize of 3*l.**)

* Those marked with an asterisk (*) are not after the prescribed designs.

† This prize consists of the interest of 167*l.* 7*s.* 3*d.* Consols, invested in the name of the Society of Arts, to be awarded by the Council 'for the best specimen of skilled workmanship' at the Society's Exhibition.

*74. BOOKBINDING.—Early Florentine style, 'Histoire de la Porcelaine,' by Louis Genth, 30 Brydges-street, Covent-garden, w.c. Price 25*l.*—(Prize of 5*l.*)

*76. Ditto, Bookcase, specimen of Mosaic, by the above, 10*l.* 10*s.*—(Prize of 3*l.*)

77. ILLUMINATIONS.—Specimen by Charles Pfander, 28 Bayham-street, Camden-Town, n.w. Price 5*l.* 10*s.*—(Prize of 4*l.*)

SECOND DIVISION.

WORKS EXECUTED WITHOUT PRESCRIBED DESIGNS.

WOOD CARVING.—(a.) *Human figure in the round, in alto or in bas relief. Animals or natural foliage may be used as accessories.*

81. 'Autumn,' Female Head in satin wood, by

G. F. Bridge, 3 Vincent-square, s.w. Price 5*l.* 10*s.*—(Prize of 5*l.*)

83a. Panel, in Ebony, 'Boy and Moth,' by R. Flipping, 67 Charrington-street, Oakley-square, n.w.—(Prize of 3*l.*)

(b.) *Animal or still life. Fruit, flowers, or natural foliage may be used as accessories.*

85. Panel. 'Bird and Flowers,' by E. Dujardin, 46 Camberwell-grove, s. Price 10*l.*—(Prize of 2*l.*)

(c.) *Natural foliage, fruit, or flowers, or conventional ornament, in which grotesque figures or animals may form accessories, preference being given where the work is of an applied character for ordinary decorative purposes, as representing commercial value.*

86. Panel in Lime Wood, by J. S. Booth, 19 Malden-road, Kentish-town, n.w. Price 10*l.* 10*s.*—(Prize of 4*l.*)

SOUTH KENSINGTON MUSEUM.

HINGE FOR SWING DOORS,

INVENTED BY THE LATE CAPT. FOWKE, R.E., FOR USE IN THE SOUTH KENSINGTON MUSEUM.

The principle of this hinge is that the door is carried on a friction-roller working on a cam so arranged that as the door is opened it rises; the weight of the door thus always tends to keep it shut without the use of any spring.

This system of hinge has this great advantage—that the cam is so adjusted that the greatest force is required at commencing to open the door (the resistance decreases as the door opens), so that a draught of air will not open it.

CLASS LXVI.

THE ADMIRALTY, WHITEHALL, LONDON.

DETAILED LIST OF THE ARTICLES EXHIBITED.

1. Marine engines.
2. Half-block models, illustrating the forms of the various classes of steam ships of the Royal Navy since the introduction of the screw.
3. Models of systems of construction of iron-cased ships.
4. Models of the general fittings of men-of-war, including condensing and cooking apparatus, &c.
5. Specimens of such of the articles of food in use in H. M. Navy as are manufactured in the Government victualling yards.
6. Specimens of boats in use in H. M. Navy.
7. Naval munitions of war.
8. Naval flags.
9. Charts and books.

1. MARINE ENGINES.

A model of the engines of 1,350 horse-power, in H. M. ships *Minotaur* and *Northumberland*, by John Penn and Son.

A pair of marine engines of the collective power of 350 horses, on the expansive principle, with surface condensers, for H. M. ship *Sappho*, by Messrs. John Penn and Son, Greenwich.

A launch engine and boiler, complete, by J. Penn and Son.

Engines of the twin-screw steam launch (No. 38), also the carriage for transporting them, as supplied to ships of the royal navy. These engines consist of two pairs of high pressure engines of 6 horse-power collectively by Messrs. Maudsley, Sons, & Field. Length of the launch 42 ft., breadth 11 ft. 6 in.; draught of water (light), 1 ft. 10 in. forward, 3 ft. aft; speed 7·5 knots. Number of cylinders 4, diameter of cylinders 5 in., length of stroke 6 in., average number of strokes on trial 360, indicated horse-power 39. Diameter of the screw-propellers 2 ft. 6 in., pitch 3 ft. 2 in. The boiler is constructed of Low Moor iron, and was proved by water pressure to 180 lbs. per square inch. Number of tubes 31, length of tubes 3 ft. 11 in., diameter of tubes 2 in. Area of the fire grate 4·7 square feet, total area of the heating surface 80 square feet. The launch, to which these engines belong is exhibited with the other boats.

2. SERIES OF HALF BLOCK MODELS, ILLUSTRATING THE FORMS OF THE VARIOUS CLASSES OF STEAM SHIPS OF THE ROYAL NAVY SINCE THE INTRODUCTION OF THE SCREW.

N.B.—In the following particulars the length given is the length between the perpendiculars,

the breadth is the breadth extreme, the tonnage is builders' measurement (old rule); the armament stated against the ships is that which was ordered for them about the time of their being launched, but in many cases it has been frequently altered since.

When a ship has been tried fully rigged and equipped for sea, the corresponding speed and draught of water is that which has been stated; in the case of those ships which have not been so tried, the correct speed and draught of water has been given as far as practicable.

The half-block models are all on the scale of a quarter of an inch to the foot.

SHIPS OF THREE DECKS.

The *Duke of Wellington*, 131 guns, 700 horse-power, length 240 ft. 7 in., breadth 60 ft. 1 in., draught 25 ft. 9 in. forward, 25 ft. 9 in. aft, tonnage 3,771, speed 9·891 knots. Laid down in Pembroke Yard, in 1849, as a sailing vessel, but converted to a screw ship while on the stocks; launched in 1852. The original design for a sailing vessel, and the subsequent alteration of it for a screw propeller, were by the Surveyor's Department. The *Prince of Wales* was built as a sailing ship on the same lines, but when lengthened for the screw propeller was given an additional 12 ft. amidships. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck.	{ 10	8 in.	65	9 0
	{ 26	32 prs.	56	9 6
Middle „	{ 30	32 „	56	9 6
	{ 6	8 in.	65	9 0
Main „	{ 38	32 prs.	42	8 0
	{ 20	32 „	25	6 0
Upper „	{ 1	68 pivot	95	10 0
Total .	131			

The complement of men was 1,100. The model and the above dimensions represent the ship as she was actually built.

The *Marlborough*, 131 guns, 800 horse-power, length 245 ft. 6 in., breadth 61 ft. 2½ in., draught 25 ft. 4 in. forward, 27 ft. 3 in. aft, tonnage 4,000, speed 11·233 knots. Laid down at Portsmouth Yard, September 1, 1850, as a sailing vessel, conversion to a screw ship commenced November 29, 1852, launched as such July 31, 1855. The original design for a sailing vessel, and the subsequent alteration of it for the screw propeller, were by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	{ 10	8 in.	65	9 0
	{ 26	32 prs.	56	9 6
Middle „ .	{ 6	8 in.	65	9 0
	{ 30	32 prs.	56	9 6
Main „ .	{ 38	32 „	42	8 0
	{ 20	32 „	25	6 0
Upper „ .	{ 1	68 pivot	95	10 0
Total .	131			

The complement of men was 1,100. The model and the above dimensions represent the ship as she was actually built.

The *Victoria*, 121 guns, 1,000 horse-power, length 260 ft. 2 in., breadth 60 ft. 1 in., draught 24 ft. 7 in. forward, 27 ft. 10 in. aft, tonnage 4,127, speed 12·271 knots. Laid down at Portsmouth Yard, April 1, 1856; launched November 12, 1859. Designed by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	32	8 in.	65	9 0
Middle „ .	30	8 „	65	9 0
Main „ .	32	32 prs.	56	9 6
Upper „ .	{ 26	32 „	42	8 0
	{ 1	68 pivot	95	10 0
Total .	121			

The complement of men was 1,130.

SHIPS OF TWO DECKS.

The *Sans Pareil*, 80 guns, 400 horse-power, length 200 ft., breadth 52 ft. 3 in., draught 22 ft. 8 in. forward, 25 ft. 7½ in. aft, tonnage 2,339, speed 9·3 knots. Laid down at Devonport Yard, in September, 1845, as a sailing ship, conversion to a screw ship commenced in January, 1849; launched as such in March, 1851. Designed by Sir William Symonds as a sailing ship, and adapted for the screw propeller by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	30	32	56	9 6
Main „ .	30	8 in.	52	8 0
Upper „ .	{ 18	32 prs.	25	6 0
	{ 2	32 „	56	9 6
Total .	80			

The complement of men was 700. The model and the above dimensions represent the ship as she was actually built.

The *Agamemnon*, 80 guns, 600 horse-power, length 230 ft., breadth 55 ft. 6 in., draught 23 ft. 1 in. forward, 23 ft. 8 in. aft, tonnage 3,074, speed 11·243 knots. Laid down at Woolwich Yard, in November, 1849; launched May 22, 1852. Designed by Mr. J. Edye, when acting surveyor of the navy, in 1847. There were also built on the same lines, the *James Watt*, at Pembroke, in 1853, the *Victor Emmanuel*, at Pembroke, in 1855, the *Edgar*, at Woolwich, in 1858; and also on the same lines, but lengthened 5 ft. at the bow, the *Hero*, at Chatham, in 1858. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	36	8 in.	65	9 0
Main „ .	34	32 prs.	56	9 6
Upper „ .	{ 2	8 in.	95	10 0
	{ 8	10 „	85	9 4
Total .	80			

The complement of men was 820. This was the first screw line-of-battle ship designed for the British Navy.

In 1857 and 1858 she was employed in laying down the first Atlantic Telegraph Cable.

The *St. Jean d'Acre*, 101 guns, 600 horse-power, length 238 ft., breadth 55 ft. 4 in., draught 23 ft. 6 in. forward, 25 ft. aft, tonnage 3,199, speed 11·199 knots (ship light). Laid down at Devonport Yard, in June, 1851; launched March, 1853. Designed by Surveyor's Department. There were also built on the same lines, but lengthened 2 ft. at the bow, the *Conqueror*, at Devonport, in 1855, and the *Donegal*, at Devonport, in 1858. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	{ 20	8 in.	65	9 0
	{ 16	32 prs.	56	9 6
Main „ .	{ 28	32 „	56	9 6
	{ 8	8 in.	65	9 0
Upper „ .	{ 8	32 prs.	42	8 0
	{ 21	68 pivot	95	10 0
Total .	101			

The complement of men was 900.

The *Colossus*, 80 guns, 400 horse-power, length 190 ft., breadth 57 ft., draught 23 ft.,

2 in. forward, 25 ft. 7 in. aft, tonnage 2,590, speed 9.312 knots. Laid down at Pembroke Yard, October, 1843, as a sailing ship, and launched as such, June, 1848. Converted for the screw propeller, at Portsmouth, in 1854, without any alteration in her form, as were also the following ships, which were built on the same lines, viz. the *Majestic*, at Chatham, in 1853; the *Brunswick*, at Pembroke, in 1855; the *Centurion*, at Devonport, in 1856; the *Mars*, at Chatham, in 1856; the *Goliath*, at Chatham, in 1858; the *Meeanee*, at Sheerness, in 1858; the *Irresistible*, at Chatham, in 1859; the *Lion*, at Devonport, in 1859; the *Collingwood*, at Sheerness, in 1861. Designed for a sailing ship by Sir William Symonds, and adapted for the screw propeller by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	{ 10	8 in.	65	9 0
	{ 18	32 prs.	56	9 6
Main " .	{ 4	8 in.	65	9 0
	{ 24	32 prs.	50	9 0
Upper " .	{ 24	32 "	42	8 0
Total .	80			

The complement of men was 750.

The *Hannibal*, 91 guns, 450 horse-power, length 217 ft. 6 in., breadth 58 ft. 1 $\frac{5}{8}$ in., draught 20 ft. 6 in. forward, 20 ft. 7 in. aft, tonnage 3,136, speed 8.6 knots. Laid down at Deptford Yard as a sailing ship in December, 1848, commenced conversion to a screw ship in October, 1852, and launched in January, 1854. Designed by Mr. J. Edye. There was also built on the same lines, and converted for the screw propeller in a similar manner, the *Princess Royal*, at Portsmouth, in 1852. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	{ 20	8 in.	65	9 0
	{ 12	32 prs.	56	9 6
Main " .	{ 8	8 in.	65	9 0
	{ 26	32 prs.	56	9 6
Upper " .	{ 24	32 "	42	8 0
	{ 1	68 pivot	95	10 0
Total .	91			

The complement of men was 850. The model and the above dimensions represent the ship as she was actually built.

The *Orion*, 91 guns, 600 horse-power, length 238 ft., breadth 55 ft. 9 in., draught 24 ft. 5 in. forward, 26 ft. 10 in. aft, speed 11.446 knots, tonnage 3,281. Laid down at Chatham Yard, in February, 1850, as a sailing ship, commenced conversion to a screw ship in December, 1852, and launched November 6, 1854. Designed by Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	34	8 in.	65	9 0
Main " .	34	32 prs.	56	9 6
Upper " .	{ 22	32 "	42	8 6
	{ 1	68 pivot	95	10 0
Total .	91			

The complement of men was 850. The model and the above dimensions represent the ship as she was actually built.

The *Renown*, 91 guns, 800 horse-power, length 244 ft. 10 in., breadth 55 ft. 4 in., draught 23 ft. 4 in. forward, 25 ft. 2 in. aft, speed 11.815 knots, tonnage 3,319. Laid down at Chatham Yard, in December, 1854; launched March 28, 1857. Designed by Surveyor's Department, on the *Agamemnon*'s lines lengthened amidships to receive 800 horse-power engines. There were also built on the same lines the *Anson*, at Woolwich, in 1860; the *Atlas*, at Chatham, in 1860; and the *Revenge*, at Pembroke, in 1859. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	34	8 in.	65	9 0
Main " .	34	32 prs.	56	9 6
Upper " .	{ 22	32 "	45	8 6
	{ 1	68 pivot	95	10 0
Total .	91			

The complement of men was 860.

The *Neptune*, 90 guns, 500 horse-power, length 216 ft. 6 in., breadth 55 ft. 5 in., draught 23 ft. 6 in. forward, 26 ft. 5 in. aft, tonnage 2,830, speed 10.897 knots. Laid down at Portsmouth Yard, in January, 1827, as a sailing ship; launched as such in September, 1832; converted for the screw propeller in 1859. Designed by Sir William Rule as a sailing ship, and adapted for the screw by the Surveyor's Department. There were also built on the same lines, and converted for the screw propeller in a similar manner, the *St. George*, at Devonport, in 1859; the *Trafalgar*, at Chatham, in 1859; the *Conqueror*, at Sheerness, in 1859; and the *Royal William*, at Devonport, in 1860. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	32	8 in.	65	9 0
Main " .	34	32 prs.	56	9 6
Upper " .	{ 22	32 "	42	8 0
	{ 2	68 "	95	10 0
Total .	90			

The complement of men was 860.

The *Rodney*, 90 guns, 500 horse-power, length 214 ft. 4 in., breadth 54 ft., draught 18 ft. 9 in. forward, 21 ft. 6 in. aft, tonnage 2,770, speed 11·479 knots (ship light). Laid down at Pembroke Yard, in July, 1827, as a sailing ship; launched as such in June, 1833; converted for the screw propeller in 1859. Designed by Sir Robert Seppings as a sailing ship, and adapted for the screw propeller by the Surveyor's Department. There were also built on the same lines as sailing ships, the *London*, and the *Nile*; the former was altered to a steam ship, at Devonport, in 1858, in the same manner; but the *Nile* was converted, at Devonport, in 1854, without being lengthened. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	32	8 in.	65	9 0
Main „ .	34	32 prs.	56	9 6
Upper „ .	{ 22 2	32 „ 68 „	42 95	8 0 10 0
Total .	90			

The complement of men was 840.

The *Queen*, 110 guns, length 204 ft. 2½ in., breadth 60 ft. ½ in., draught 24 ft. 4 in. forward, 25 ft. 6 in. aft, tonnage 3,104. Laid down in Portsmouth Yard in 1833, launched in 1839. Designed by Sir Wm. Symonds. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	{ 24 6	32 8 in.	56 65	9 6 9 0
Middle „ .	{ 26 4	32 prs. 8 in.	56 65	9 6 9 0
Main „ .	30	32 prs.	41	8 0
Quarter „ .	{ 14 6	32 „ 32 „	25 45	6 0 8 6
Total .	110			

The complement of men was 900. Her name was originally *Royal Frederick*, but it was changed to *Queen* in 1839. She was converted to a screw two-deck ship of 86 guns, at Sheerness, in 1859, and her dimensions, &c., altered to the following, viz. length 216 ft. 7½ in., breadth 60 ft. ¾ in., tonnage 3,249, draught 22 ft. forward, 23 ft. 7 in. aft, speed 10·578 knots; and armament—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	30	8 in.	65	9 0
Main „ .	32	32 prs.	56	9 6
Upper „ .	{ 22 2	32 „ 68 „	42 95	8 0 10 0
Total .	86			

The alteration of her lines for a steam ship was by the Surveyor's Department.

There was also built as a sailing ship, on the same lines, the *Frederick William*, and she was converted for the screw propeller in the same manner, at Portsmouth, in 1860.

The complement of men was 845. There are two models of this ship (A and B), A as a sailing ship, B as a steam ship.

The *Duncan*, 101 guns, 800 horse-power, length 252 ft. 1 in., breadth 58 ft. 1 in., draught 18 ft. 4 in. forward, 21 ft. 5 in. aft, speed 13·236 knots (ship light), tonnage 3,727. Laid down at Portsmouth Yard in May, 1857; launched December, 1859. Designed by the Surveyor's Department. There was also built on the same lines the *Gibraltar*, at Devonport, in 1860. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	38	8 in.	65	9 0
Main „ .	38	32 prs.	56	9 6
Upper „ .	{ 24 1	32 „ 68 pivot	42 95	8 0 10 0
Total .	101			

The complement of men was 900.

The *Albion*, 90 guns, 400 horse-power, length 204 ft. 4 in., breadth 60 ft. 3 in., draught 18 ft. 9 in. forward, 21 ft. 6 in. aft, tonnage 3,111, speed 10·986 knots (ship light). Laid down at Devonport Yard, August 13, 1839, as a sailing vessel, and launched as such September 6, 1842. She was converted for the screw propeller at Devonport, in 1861, without any alteration in her form, as were also the following ships, which were built on the same lines, viz.: the *Erasmus*, at Devonport, in 1854, and the *Aboukir*, at Devonport, in 1858. Designed for a sailing ship by Sir William Symonds, and adapted for the screw propeller by the Controller's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Lower deck .	32	8 in.	65	9 0
Main „ .	32	32 prs.	56	9 6
Upper „ .	26	32 „	42	8 0
Total .	90			

The complement of men was 820.

FRIGATES.

The *Arrogant*, 46 guns, 360 horse-power, length 200 ft., breadth 45 ft. 8¾ in., draught 18 ft. 7 in. forward, 20 ft. 3 in. aft, speed 8·935 knots, tonnage 1,872. Laid down at Portsmouth Yard in September, 1845; launched in April, 1848. Designed by Mr. Fincham. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	{ 16	32 prs.	56	9 6
	{ 12	8 in.	65	9 0
Upper „ .	{ 16	32 prs.	32	6 6
	{ 2	68 „	95	10 0
Total .	46			

The complement of men was 450.

The *Dauntless*, 24 guns, 580 horse-power, length 219 ft. 6 in., breadth 39 ft. 9 in., draught 17 ft. forward, 18 ft. 7 in. aft, speed 9·903 knots, tonnage 1,575. Laid down at Portsmouth Yard, in September, 1845; launched in January, 1847. Designed by Mr. Fincham. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	18	32	56	9 6
Upper „ .	{ 2	68 pivot	95	10 0
	{ 4	10 in.	85	9 4
Total .	24			

The complement of men was 250. She was originally constructed 9 ft. 6 in. shorter, but the model and the above dimensions and armament represent her as she was after being lengthened by the stern in 1850, at Portsmouth, an alteration which caused a very great improvement in her speed.

The *Imperieuse*, 51 guns, 360 horse-power, length 212 ft., breadth 50 ft. 0½ in., draught 21 ft. 2 in. forward, 22 ft. 3 in. aft, speed 9·849 knots, tonnage 2,358. Laid down at Deptford Yard, in November, 1850; launched in September, 1852. Designed by the Surveyor's Department. There were also built on the same lines, the *Chesapeake*, at Chatham, in 1855, the *Euryalus*, at Chatham, in 1853, and the *Forte*, at Deptford, in 1858. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	{ 8	8 in.	65	9 0
	{ 22	32 prs.	56	9 6
Upper „ .	{ 12	8 in.	65	9 0
	{ 8	32 prs.	45	8 6
	{ 1	68 pivot	95	10 0
Total .	51			

The complement of men was 530.

The *Tribune*, 31 guns, 300 horse-power, length 192 ft., breadth 43 ft., draught 17 ft. forward, 20 ft. 3 in. aft, speed 9·666 knots, tonnage 1,569. Laid down at Sheerness Yard, in April, 1851; launched in January, 1853. Designed by Surveyor's Department. There was also built on the same lines, the *Curacao*, at Pembroke, in 1854. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	20	32 prs.	56	9 6
Upper „ .	{ 10	32 prs.	42	8 0
	{ 1	{ 10 in. pivot }	85	9 4
Total .	31			

The complement of men was 300.

The *Shannon*, 51 guns, 600 horse-power, length 235 ft. 1 in., breadth 50 ft. 1½ in., draught 20 ft. 3 in. forward, 21 ft. 9 in. aft, tonnage 2,667, speed 11·492 knots (ship light). Laid down at Portsmouth Yard, in January, 1854; launched in November, 1855. Designed by Surveyor's Department. There were also built on the same lines, the *Liffey*, at Devonport, in 1856; the *Topaze*, at Devonport, in 1858; the *Bacchante*, at Portsmouth, in 1859; and the *Liverpool*, at Devonport, in 1860. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	30	8 in.	65	9 0
Upper „ .	{ 20	32 prs.	56	9 6
	{ 1	68 pivot	95	10 0
Total .	51			

The complement of men was 560.

The *Emerald*, 51 guns, 600 horse-power, length 237 ft., breadth 52 ft. 6½ in., draught 21 ft. forward, 22 ft. aft, speed 11·525 knots, tonnage 2,913. Laid down at Deptford Yard, in June, 1849, as a sailing ship; conversion to a screw ship commenced in May, 1854; launched as such in July, 1856. Designed by Surveyor's Department. There was also built on the same lines and converted for the screw propeller in a similar manner, the *Melpomene*, at Pembroke, in 1857. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	30	8 in.	65	9 0
Upper „ .	{ 20	32 prs.	56	9 6
	{ 1	68 pivot	95	10 0
Total .	51			

The complement of men was 560. The model and the above dimensions represent the ship as she was actually built.

The *Diadem*, 32 guns, 800 horse-power, length 240 ft., breadth 48 ft. ½ in., draught 19 ft. 5 in. forward, 21 ft. 8 in. aft, speed 12·003 knots, tonnage 2,483. Laid down at Pembroke Yard, in June, 1855; launched in October, 1856. Designed by Surveyor's Department. There was also built on the same lines, the *Doris*, at Pembroke, 1857. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Upper deck .	20	68	95	10 0
Main „ .	{ 10 2	32 68 pivot	56 95	9 6 10 0
Total .	32			

The complement of men was 475.

The *Orlando*, 50 guns, 1,000 horse-power, length 300 ft., breadth 52 ft. 1 in., draught 21 ft. 1 in. forward, 22 ft. 8 in. aft, speed 13·001 knots, tonnage 3,740. Laid down at Pembroke Yard, in November, 1856; launched in June, 1858. Designed by the Surveyor's Department. There was also built on the same lines the *Mersey*, at Chatham, in 1858, but with an alteration in her ports to carry fewer guns. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	38	8 in.	65	9 0
Upper „ .	12	{ 68 prs. } { pivots }	95	10 0
Total .	50			

The complement of men was 560.

The *Mersey*, 40 guns, 1,000 horse-power, length 300 ft. 2½ in., breadth 52 ft., draught 21 ft. 4 in. forward, 23 ft. 10 in. aft, speed 12·796 knots, tonnage, 3,733. Laid down at Chatham Yard, in December, 1856; launched in August, 1858. Designed by Surveyor's Department. There was also built on the same lines, the *Orlando*, at Pembroke, in 1858, but with an alteration in her ports to carry more guns. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	28	10 in.	84	9 4
Upper „ .	12	{ 68 prs. } { pivots }	95	10 0
Total .	40			

The complement of men was 560.

The *Phaeton*, 50 guns, length 184 ft. 11 in., breadth 49 ft. 5¾ in., draught 21 ft. forward, 22 ft. 11 in. aft, tonnage 1,942. Laid down at Deptford Yard, in September, 1845; launched in November, 1848. Designed by Mr. White. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	{ 6 22	8 in. 32 prs.	65 56	9 0 9 6
Upper „ .	{ 4 18	8 in. 32 prs.	65 45	9 0 8 6
Total .	50			

The complement of men was 500.

She was converted to a screw frigate of 51 guns and 400 horse-power in 1859, at Sheerness, and her dimensions were altered to the following:—Length 220 ft. 3¾ in., breadth 49 ft. 10 in., draught 18 ft. 9 in. forward, 21 ft. aft, tonnage 2,396, speed 10·466 knots (ship light). The alteration of her lines for a steam ship was by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	{ 8 22	8 in. 32 prs.	65 56	9 0 9 6
Upper „ .	{ 2 18 1	8 in. 32 prs. 68 pivot	65 45 95	9 0 8 6 0 0
Total .	51			

The complement of men was 540.

There are two models of this ship (A and B), A as a sailing ship, B as a steam ship.

The *Phæbe*, 51 guns, 500 horse-power, length 240 ft. 6 in., breadth 51 ft. 9½ in., draught 16 ft. 7 in. forward, 19 ft. 4 in. aft, tonnage 2,896, speed 11·925 knots (ship light). Laid down at Devonport Yard, in August, 1848, as a sailing ship and launched as such in September, 1854. Converted for the screw propeller in 1859. Designed by Mr. Edye as a sailing ship, and altered for the screw propeller by the Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	{ 8 22	8 in. 32 prs.	65 56	9 0 9 6
Upper „ .	{ 2 18 1	8 in. 32 prs. 68 pivot	65 45 95	9 0 8 6 10 0
Total .	51			

The complement of men was 525.

The *Narcissus*, 51 guns, 400 horse-power, length 228 ft., breadth 51 ft. 3 in., draught 20 ft. 3 in. forward, 23 ft. 9 in. aft, tonnage 2,665, speed 10·597 knots. Laid down at Devonport Yard, in April, 1857; launched in October, 1859. Designed by Surveyor's Department. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck	{ 8 22	8 in. 32 prs.	65 56	9 0 9 6
Upper „ .	{ 2 18 1	8 in. 32 prs. { 68 pr. } { pivot }	65 45 95	9 0 8 6 10 0
Total .	51			

The complement of men was 540.

The *Galatea*, 26 guns, 800 horse-power,

length 280 ft., breadth 50 ft., draught 20 ft. forward, 21 ft. 9 in. aft, tonnage, 3,227, speed 13·004 knots. Laid down at Woolwich Yard, in February, 1857; launched in September, 1859. Designed by Surveyor's Department. There was also built on the same lines, the *Ariadne*, at Deptford, in 1859. The armament was as follows:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
Main deck .	24	10 in.	84	9 4
Upper „ .	2	{ 68 prs. } { pivots }	95	10 0
Total .	26			

The complement of men was 400.

The *Octavia*, 51 guns, 500 horse-power, length 252 ft. 5 in., breadth 52 ft. 10 in., draught 20 ft. 10 in. forward, 23 ft. 10 in. aft, tonnage 3,161, speed 11·538 knots. Laid down at Pembroke Yard, in September, 1846, as a sailing ship; launched as such in August, 1849; converted for the screw propeller, at Portsmouth Yard, in 1860. Designed by Sir William Symonds as a sailing ship, and altered for the screw propeller by the Surveyor's Department. There were also built on the same lines, as sailing vessels, and converted to steam ships in a similar manner, the *Arethusa*, at Chatham, in 1861, and the *Constance*, at Devonport, in 1862. The armament was as follows:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
Main deck .	{ 8	8 in.	65	9 0
	{ 22	32 prs.	56	9 6
	{ 2	8 in.	65	9 0
Upper „ .	{ 18	32 prs.	45	8 6
	{ 1	{ 68 pr. } { pivot }	95	10 0
Total .	51			

The complement of men was 525.

The *Newcastle*, 51 guns, 600 horse-power, length 250 ft., breadth 52 ft., draught 15 ft. 7 in. forward, 19 ft. 10 in. aft, tonnage 3,027, speed 13·28 knots (ship light). Laid down at Deptford Yard in December 1858; launched in October 1860. Designed by Surveyor's Department. There were also built on the same lines the *Bristol*, at Woolwich, in 1861; the *Glasgow*, at Portsmouth, in 1861; and the *Undaunted*, at Chatham, in 1861. The armament was as follows:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
Main deck .	30	8 in.	65	9 0
	{ 20	32 prs.	56	9 6
Upper „ .	{ 1	{ 68 pr. } { pivot }	95	10 0
Total .	51			

The *Inconstant*, 14 guns, 1,000 horse-power, length 333 ft., breadth 50 ft. 1 in., draught 22 ft. forward, 24 ft. aft, tonnage 3,978, speed 15 knots (estimated). Building at Pembroke Yard. Designed by the Controller's Department. Her armament is intended to be:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
	10	9 in. rifled muzzle loading	12½	
	6	7 „ „	6½	
Total .	16			

CORVETTES, SLOOPS, &c.

The *Rattler*, 5 guns, 200 horse-power, length 176 ft. 6 in., breadth 32 ft. 8½ in., draught 13 ft. 1 in. forward, 14 ft. 6 in. aft, speed 9·141 knots, tonnage 888. Laid down at Sheerness Yard in April 1842; launched in April 1843. Broken up at Woolwich, in November 1856. Designed by Sir Wm. Symonds as *Ardent*, lengthened aft for the screw propeller. The armament was as follows:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
	4	32 carronades		
	1	68 pr. pivot		9 0
Total .	5			

The complement of men was 120.

The *Rifleman*, 6 guns, 100 horse-power, length 150 ft., breadth 26 ft. 7 in., draught 11 ft. 3 in. forward, 11 ft. 10 in. aft, tonnage 486, speed 7·15 knots. Laid down at Portsmouth Yard in July 1845; undocked August 1846. Designed by Mr. Fincham. The armament was as follows:—

	No.	Pounds	Weight	Length
			cwt.	ft. in.
	1	56	87	10 0
	1	10 in.	85	9 4
	4	32 prs.	25	6 0
Total .	6			

The complement of men was 80.

The *Renard*, 8 guns, 60 horse-power, length 147 ft. 8 in., breadth 27 ft 9¾ in., draught 10 ft. 1½ in. forward, 11 ft. 8 in. aft, speed 7·3 knots. tonnage 516. Laid down at Deptford Yard in August 1847; launched in August 1848. Lost in 1851. Designed by Mr. John Edye. The armament was as follows:—

	No.	Pounders	Weight
	6	32	cwt. 25
	2	32 pivot	56
Total .	8		

The complement of men was 100.

The *Archer*, 14 guns, 202 horse-power, length 186 ft. 4½ in., breadth 33 ft. 10½ in., draught 14 ft. 7 in. forward, 14 ft. 10 in. aft, speed 8·242 knots, tonnage 973. Laid down at Deptford Yard in October 1847; launched in March 1849. Designed by Surveyor's Department. There was also built on the same lines, the *Wasp*, at Deptford, in 1850. The armament was as follows :—

	No.	Pounders	Weight	Length
	12	32	cwt. 42	ft. in. 6 6
	2	68 pivot	87	9 6
Total .	14			

The complement of men was 150.

The *Brisk*, 15 guns, 250 horse-power, length 190 ft. 7¼ in., breadth 35 ft. 2¼ in., draught 14 ft. 8 in. forward, 16 ft. 8 in. aft, speed 9·273 knots, tonnage 1,087. Laid down at Woolwich Yard in January 1849; launched in June 1851. Designed by the Committee of Reference. The armament was as follows :—

	No.	Pounders	Weight	Length
	14	32	cwt. 32	ft. in. 6 6
	1	68 pr. pivot	87	9 6
Total .	15			

The complement of men was 170.

The *Highflyer*, 21 guns, 250 horse-power, length 192 ft., breadth 36 ft. 5½ in., draught 15 ft. 9 in. forward, 18 ft. 10 in. aft, speed 9·410 knots, tonnage 1,161. Built by contract by Messrs. Mare and Co., at Blackwall. Laid down in January, 1850; launched in August, 1851. Designed by Surveyor's Department. There was also built on the same lines the *Esk*, at Millwall, in 1854. The armament was as follows :—

	No.	Pounders	Weight	Length
	20	8 in.	cwt. 52	ft. in. 8 0
	1	10 in. pivot	85	9 4
Total .	21			

The complement of men was 220.

The *Cruiser*, 17 guns, 60 horse-power, length 160 ft., breadth 31 ft. 10 in., draught 12 ft. 8 in. forward, 14 ft. 5 in. aft, speed 6·608 knots, tonnage 752. Laid down at Deptford

Yard in April, 1851; launched in June, 1852. Designed by Surveyor's Department. There was also built on the same lines the *Alert*, at Pembroke, in 1856; the *Falcon*, at Pembroke, in 1854; the *Harriet*, at Pembroke, in 1854; the *Hornet*, at Deptford, in 1854; the *Fawn*, at Deptford, in 1856. The armament was as follows :—

	No.	Pounders	Weight	Length
	16	32	cwt. 32	ft. in. 6 6
	1	32 pivot	56	9 6
Total .	17			

The complement of men was 160.

The *Malacca*, 17 guns, 200 horse-power, length 192 ft., breadth 34 ft. 4 in., draught 15 ft. 10 in. forward, 18 ft. aft, tonnage 1,034, speed 9·519 knots. Laid down at Moulmein in May, 1849; launched in April, 1853. Designed by Surveyor's Department. The armament was as follows :—

	No.	Pounders	Weight	Length
	16	32	cwt. 32	ft. in. 6 6
	1	10 in.	85	9 4
Total .	17			

The complement of men was 180.

The *Curlew*, 9 guns, 60 horse-power, length 139 ft., breadth 27 ft. 11 in., draught 12 ft. 2 in. forward, 13 ft. aft, speed 7·458 knots, tonnage 486. Laid down at Deptford Yard in October, 1852; launched in May, 1854. Taken to pieces by Messrs. Marshall, in November, 1865. Designed by Surveyor's Department. There were also built on the same lines the *Ariel*, at Pembroke, in 1854; the *Swallow*, at Pembroke, in 1854; and the *Lyra*, at Deptford, in 1857. The armament was as follows :—

	No.	Pounders	Weight	Length
	8	32	cwt. 25	ft. in. 5 4
	1	68 pivot	56	9 6
Total .	9			

The complement of men was 100.

The *Pylades*, 21 guns, 350 horse-power, length 192 ft. 9 in., breadth 38 ft. 5 in., draught 15 ft. 10 in. forward, 19 ft. 7 in. aft, speed 10·366 knots, tonnage 1,278. Laid down at Sheerness Yard in May, 1853; launched in November, 1854. Designed by Surveyor's Department. The armament was as follows :—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	20	8 in.	60	9 0
	1	68 pr. pivot	95	10 0
Total .	21			

The complement of men was 240.

The *Pearl*, 21 guns, 400 horse-power, length 200 ft., breadth 43 ft. 4 $\frac{3}{4}$ in., draught 16 ft. 2 in. forward, 19 ft. 9 in. aft, speed 11·313 knots, tonnage 1,469. Laid down at Woolwich Yard in January, 1854; launched in September, 1855. Designed by Surveyor's Department. There were also built on the same lines the *Cadmus*, at Chatham, in 1856; the *Satellite*, at Devonport, in 1855; the *Charybdis*, at Chatham, in 1859; the *Polorus*, at Devonport, in 1857; the *Scout*, at Woolwich, in 1856; the *Scylla*, at Sheerness, in 1856. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	20	8 in.	60	9 0
	1	68 pr. pivot	95	10 0
Total .	21			

The complement of men was 290.

The *Racoon*, 22 guns, 400 horse-power, length 200 ft. 1 in., breadth 40 ft. 4 in., draught 18 ft. 2 in. forward, 19 ft. 6 in. aft, tonnage 1,467, speed 10·092 knots. Laid down at Chatham Yard in April, 1856; launched in April, 1857. Designed by Surveyor's Department. There were also built on the same lines the *Challenger*, at Woolwich, in 1858, and the *Clio*, at Sheerness, in 1858. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	20	8 in.	60	8 10
	2	68 prs. pivots	95	10 0
Total .	22			

The complement of men was 280.

The *Gannet*, 11 guns, 150 horse-power, length 151 ft., breadth 29 ft. 1 $\frac{1}{2}$ in., draught 13 ft. 8 in. forward, 14 ft. 3 in. aft, tonnage 579, speed 9·928 knots. Laid down at Pembroke Yard in December, 1856; launched in December, 1857. Designed by Surveyor's Department. There were also built on the same lines the *Cordelia*, at Pembroke, in 1856; the *Racer*, at Deptford, in 1857; the *Icarus*, at Deptford, in 1858; the *Pantaloon*, at Devonport, in 1860. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	10	32	25	6 0
	1	32 pivot	58	9 6
Total .	11			

The complement of men was 120.

The *Greyhound*, 17 guns, 200 horse-power, length 172 ft. 6 in., breadth 33 ft. 2 $\frac{1}{2}$ in., draught 14 ft. forward, 15 ft. aft, tonnage 879, speed 9·177 knots. Laid down at Pembroke Yard in December, 1856; launched in June, 1859. Designed by Surveyor's Department. There was also built on the same lines the *Mutine*, at Deptford, in 1859. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	16	32	32	6 6
	1	32 pivot	58	9 6
Total .	17			

The complement of men was 165.

The *Rinaldo*, 17 guns, 200 horse-power, length 185 ft. 1 in., breadth 33 ft. 2 in., draught 13 ft. 8 in. forward, 15 ft. 7 in. aft, tonnage 951, speed 10·588 knots. Laid down at Portsmouth Yard in March, 1858; launched in March, 1860. Designed by Surveyor's Department. There was also built on the same lines the *Chameleon*, at Deptford, in 1860; the *Pelican*, at Pembroke, in 1860; the *Zebra*, at Deptford, in 1860; also about the same time the *Perseus*, *Rattler*, *Reindeer*, and *Chanticleer*. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	16	32	32	6 6
	1	32 pivot	58	9 6
Total .	17			

The complement of men was 170.

The *Rosario*, 11 guns, 150 horse-power, length 160 ft. 1 in., breadth 30 ft. 4 $\frac{1}{2}$ in., draught 12 ft. 8 in. forward, 13 ft. 10 in. aft, tonnage 673, speed 8·913 knots. Laid down at Deptford Yard in June, 1859; launched in October 1860. Designed by Surveyor's Department. There were also built on the same lines the *Peterel*, at Devonport, in 1860; the *Rapid*, at Deptford, in 1860; the *Royalist*, at Devonport, in 1861; the *Shearwater*, at Pembroke, in 1861; the *Columbine*, at Deptford, in 1862; the *Africa*, afterwards called *China*, at Devonport, in 1862. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	10	32	30	
	1	32 pivot	58	
Total .	11			

The complement of men was 130.

The *Wolverine*, 21 guns, 400 horse-power, length 225 ft., breadth 40 ft. 9 in., draught 17 ft. 11 in. forward, 20 ft. 4 in. aft, tonnage 1,703, speed 11·256 knots. Laid down at Woolwich Yard in April, 1859; launched in August, 1863. Designed by Surveyor's Department. There were also built on the same lines, the *Jason*, at Devonport, in 1859; the *Barrosa*, at Woolwich, in 1860; the *Orpheus*, at Chatham, in 1860; the *Orestes*, at Sheerness, in 1860; and the *Rattlesnake*, at Chatham, in 1861. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	16	8 in.	60	8 10
	4	{ 40 prs. Arm- strongs }	28	8 0
		110 "	82	10 0
Total .	21			

The complement of men was 275.

The *Amazon*, 4 guns, 300 horse-power, length 187 ft., breadth 36 ft., draught 13 ft. 5½ in. forward, 16 ft. 5 in. aft, tonnage 1,081, speed 12·396 knots. Laid down at Pembroke Yard in July, 1864; launched in May, 1865. Sunk in the Channel, by collision with another ship, July 10, 1866. Designed by the Controller's Department. There were also built, or are building, on the same lines the *Vestal*, at Pembroke, in 1865; the *Niobe*, at Deptford, in 1866; the *Nymph*, building at Deptford; the *Dryad*, building at Devonport, and the *Daphne*, building at Pembroke. The armament was as follows:—

	No.	Pounders	Weight
			tons
	2	32 rifled	6
	2	64 prs.	
Total .	4		

The complement of men was 130.

The *Blanche*, 4 guns, 350 horse-power, length 212 ft., breadth 36 ft., draught 13 ft. 6 in. forward, 16 ft. 6 in. aft, tonnage 1,268, speed 13 knots (estimated). Laid down at Chatham Yard, in June, 1865. Designed by the Controller's Department. There are also building on the same lines the *Danaë*, at Portsmouth, and the *Sappho*, at Sheerness. The armament is to be two 6½-ton, and two 64-prs. The complement of men is to be 110.

The *Junco*, 6 guns, 400 horse-power, length 200 ft., breadth 40 ft. 4 in., draught 16 ft. 6 in. forward, 17 ft. 6 in. aft, tonnage 1,459, speed 10·75 knots (estimated). Laid down at Deptford Yard, in June, 1866. Designed by the Controller's Department. The armament is to be two 6½-ton revolving guns, and four 64-prs. The complement of men is to be 200.

GUN VESSELS.

The *Arrow*, 2 guns, 160 horse-power, length 160 ft., breadth 25 ft. 4 in., draught 10 ft. forward, 11 ft. 8 in. aft, tonnage 477, speed 11 knots. Built by contract by Messrs. Mare and Co., at Blackwall. Laid down in April, 1854; launched in June, 1854. Designed by Surveyor's Department. There were also built on the same lines, in the same year, the *Beagle*, *Snake*, and *Lynx*, by the same contractor; and the *Wrangler* and *Viper*, by Messrs. Green, at Blackwall. The armament was as follows:—

No.	Pounders	Weight	Length
		cwt.	ft. in.
2	68	95	10 0

The complement of men was 65.

The *Wanderer*, 4 guns, 200 horse-power, length 180 ft. 11 in., breadth 28 ft. 6 in. draught 9 ft. 7 in. forward, 11 ft. 5 in. aft, tonnage 675, speed 10·733 knots. Built by contract, at Blackwall, by Messrs. Green. Laid down in May, 1855; launched in November, 1855. Designed by Surveyor's Department. There were also built on the same lines, about the same time, the *Alacrity*, *Assurance*, *Coquette*, and nine others. The *Star* class was built on the same lines, but lengthened 5 ft. at the bow. The armament was as follows:—

No.	Pounders	Weight	Length
		cwt.	ft. in.
2	32	95	10 0
2	68 pivot	25	6 0
Total .	4		

The complement of men was 80.

The *Flying Fish*, 6 guns, 350 horse-power, length 200 ft., breadth 30 ft. 4½ in., draught 10 ft. 6 in. forward, 12 ft. 10 in. aft, tonnage 871, speed 11·832 knots. Laid down at Pembroke Yard, in June, 1855; launched in December, 1855. Designed by Surveyor's Department. There were also built on the same lines, the *Intrepid* and *Victor*, at Blackwall, by Messrs. Wigram, in 1855; the *Nimrod* and *Roebuck*, at Millwall, by Mr. Russell in 1856; and the *Pioneer*, at Pembroke, in 1856. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	2	68 pivot	95	10 0
	4	32	25	6 0
Total .	6			

The complement of men was 100.

The *Algerine*, 1 gun, 80 horse-power, length 125 ft. 10½ in., breadth 22 ft. 11½ in., draught 8 ft. 1 in. forward, 8 ft. 2 in. aft, tonnage 299, speed 9·3 knots. Built by contract by Mr. Pitcher, at Northfleet. Laid down in October, 1856; launched in February, 1857. Designed by Surveyor's Department. There were also built on the same lines, the *Jasper*, at Blackwall, by Messrs. Green, in 1857; the *Leven*, and *Slaney*, by Mr. Pitcher, at Northfleet, in 1857. The armament was one 10-in. pivot, 87 cwt., 9 ft. 6 in. The complement of men was 50.

The *Ranger*, 5 guns, 80 horse-power, length 145 ft., breadth 25 ft. 4½ in., draught 10 ft. 8 in. forward, 12 ft. aft, tonnage 427, speed 9·006 knots. Laid down at Deptford Yard, in November, 1857; launched in November, 1859. Designed by Surveyor's Department. There were also built on the same lines, about the same time, the *Cygnnet*, *Dart*, *Espoir*, and sixteen others. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	1	68 pivot	95	10 0
	4	24 howitzers		
Total .	5			

The complement of men was 60.

The *Star*, 4 guns, 200 horse-power, length 185 ft. 1½ in., breadth 28 ft. 4 in., draught 10 ft. 6 in. forward, 12 ft. aft, tonnage 695, speed 10·084 knots. Built by contract at Millwall by Messrs. C. Mare & Co. Laid down in June, 1859; launched in December, 1860. Designed by Surveyor's Department. There were also built on the same lines, about the same time, the *Cormorant*, *Eclipse*, *Lily*, and five others. These vessels are the same as the *Wanderer* class, except that they are lengthened 5 ft. at the bow. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
	2	68 pivot	95	10 0
	2	32 "	25	6 0
Total .	4			

The complement of men was 90.

The *Plover*, twin screw, 3 guns, 160 horse-power, length 170 ft., breadth 29 ft., draught 9 ft. forward, 9 ft. 6 in. aft., tonnage 663, speed 11 knots (estimated). Laid down at Deptford Yard, in November, 1865. Designed by the

Controller's Department. There are also building on the same lines, the *Lapwing*, at Devonport, the *Philomel*, at Deptford, and the *Ring-dove*, at Portsmouth. The armament is to be:—

	No.	Pounders	Weight
			tons
	1	100	6½
	2	40 Armstrongs	
Total .	3		

The complement of men is to be 80.

The *Waterwitch*, built of iron, 2 guns, 160 horse-power, length 162 ft., breadth 32 ft., draught 10 ft. 10 in. forward, 11 ft. 4 in. aft, tonnage 778, speed 9·255 knots. Built by contract on the Thames by the Thames Iron Ship-building Company. Laid down November, 1864; launched in June, 1866. Designed by Rear-Admiral Elliot and the Controller's Department; to be propelled on the hydraulic principle. The armament was two 6-ton rifled guns; the complement of men was 80.

GUN BOATS.

The *Albacore*, 2 guns, 60 horse-power, length 108 ft. 4 in., breadth 22 ft. 1 in., draught 6 ft., 10 in. forward, 6 ft. 6 in. aft, tonnage 235, speed 6·5 knots. Built by contract at West Cowes, by Messrs. J. and R. White. Laid down in October, 1855; launched in April, 1856. Designed by Surveyor's Department. There were also built on the same lines, about the same time, the *Amelia*, the *Banterer*, and 113 others. The armament was as follows:—

	No.	Pounders.	Weight	Length
			cwt.	ft. in.
	1	68	95	10 0
	1	32	56	9 6
Total .	2			

The complement of men was 36.

The *Clown*, 2 guns, 40 horse-power, length 110 ft. 2½ in., breadth 21 ft. 11 in., draught 5 ft. 11 in. forward, 6 ft. 5 in. aft, tonnage 238, speed 6·4 knots. Built by contract by Mr. W. C. Miller, at Liverpool. Laid down in January, 1856; launched in May, 1856. Designed by Surveyor's Department. There were also built on the same lines, the *Drake*, *Fenella*, and nine others. The armament was as follows:—

	No.	Pounders.	Weight	Length
			cwt.	ft. in.
	1	68 pivot	95	10 0
	1	32 "	56	9 6
Total .	2			

The complement of men was 36.

The *Angler*, 2 guns, 20 horse-power, length

100 ft., breadth 21 ft. 10 in., draught 5 ft. 6 in. forward, 5 ft. 6 in. aft, tonnage 212, speed 10·537 knots (ship light). Laid down at Devonport Yard, in December, 1855; launched in March, 1856. Designed by Surveyor's Department. There were also built on the same lines, the *Ant*, at Devonport, in 1856; the *Cheerful*, at Deptford, in 1855; and seventeen others. The armament was two 32-prs., 56 cwt., 9 ft. 6 in. The complement of men was 30.

The *Britomart*, 2 guns, 60 horse-power, length 120 ft. 1 in., breadth 22 ft. 1 in., draught 7 ft. 9 in. forward, 8 ft. 5 in. aft, tonnage 270, speed 7·9 knots. Built by contract by Messrs. J. and W. Smith, at Newcastle-on-Tyne. Laid down in November, 1859; launched in May, 1860. Designed by Surveyor's Department. There were also built on the same lines, about the same time, the *Cockatrice*, *Doterel*, *Heron*, and about ten others. The armament was as follows:—

	No.	Pounders	Weight	Length
	1	68 pivot	95	10 0
	1	32 "	56	9 6
Total .	2			

The complement of men was 40.

TUGS.

The *Turtle*, twin screw, iron tug, 20 horse-power, length 57 ft. 7 in., breadth 11 ft. 10½ in., draught 3 ft. 6 in. forward, 5 ft. 7 in. aft, tonnage 37, speed 9·2 knots (ship light). Built by contract by Messrs. J. and W. Dudgeon, at Millwall; launched in January, 1864. Designed by Messrs. J. and W. Dudgeon. There was also built on the same lines, the *African*, in 1865. The complement of men 7.

The *Trusty*, built of iron, 150 horse-power, length 129 ft. 11 in., breadth 23 ft. 1½ in., draught 10 ft. 6 in. forward, 10 ft. 6 in. aft, tonnage 329, speed 11·5 knots. Built by Messrs. Palmer, at Jarrow. Laid down October, 1865; launched in February, 1866. Designed by Messrs. Palmer, Jarrow. The *Camel* was built on the same lines, by Messrs. Palmer, in 1866.

PADDLE WHEEL DESPATCH VESSELS.

The *Salamis*, 1 gun, 250 horse-power, length 220 ft., breadth 28 ft. 2 in., draught 10 ft. 3 in. forward, 10 ft. 8 in. aft, tonnage 835, speed 13·3 knots. Laid down at Chatham Yard, in August, 1861; launched in May, 1863. Designed by Controller's Department. There were also built on the same lines, the *Enchantress* and *Pysche*, at Pembroke, in 1862. The armament was one 40-pr. Armstrong, 32 cwt., 10 ft. The complement of men was 65.

The *Helicon*, 1 gun, 250 horse-power, length 220 ft., breadth 28 ft. 2½ in., draught 9 ft. 11 in.

forward, 10 ft. 3 in. aft, tonnage 837, speed 14·5 knots. Laid down at Portsmouth Yard, in May, 1861; launched in January, 1865. Designed by Mr. Reed and Controller's Department. The armament was one 40-pr. Armstrong, 32 cwt., length 10 ft. The complement of men was 65.

YACHTS.

The *Black Eagle*, 1 gun, 260 horse-power, length 168 ft., breadth 26 ft. 5 in., draught 11 ft. 4 in. forward, 11 ft. 8 in. aft, tonnage 540, speed 11·1 knots. Built by contract by Messrs. Curling and Co., Limehouse. Laid down in April, 1831; launched in July, 1831. Designed by Mr. Oliver Lang, but lengthened 13 ft., at Deptford, in 1843. The model and above dimensions represent the ship as she was after being lengthened. The armament was one 18-pr., 38 cwt. The complement of men was 40. She was originally called the *Firebrand*, but in February, 1842, her name was changed to *Black Eagle*.

The *Osborne*, royal yacht, paddle-wheel, 430 horse-power, length 200 ft. 1 in., breadth 33 ft., draught 14 ft. 10 in. forward, 13 ft. 8 in. aft, tonnage 1,034, speed 10·7 knots. Laid down at Pembroke Yard, in 1842; launched in 1843. Designed by Sir William Symonds. Prior to December 22, 1854, this vessel was called the *Victoria and Albert*.

The *Fairy*, royal yacht, screw, 128 horse-power, length 144 ft. 8 in., breadth 21 ft. 1½ in., draught 4 ft. 11½ in. forward, 7 ft. 0½ in. aft, tonnage 312, speed 13·229 knots. Built at Blackwall Yard, by contract, by Messrs. Ditchburn and Mare; launched in 1845. Designed by Messrs. Ditchburn and Mare.

The *Elfin*, 40 horse-power, length 103 ft. 6 in., breadth 14 ft., draught 5 ft. 3 in. forward, 5 ft. aft, tonnage 98, speed 11·4 knots. Laid down at Chatham Yard, in August, 1848; launched in February, 1849. Designed by Mr. W. O. Lang.

The *Victoria and Albert*, royal yacht, paddle-wheel, 600 horse-power, length 300 ft., breadth 40 ft. 3¼ in., draught 13 ft. 10 in. forward, 14 ft. aft, tonnage 2,345, speed 16·8 knots (ship light). Laid down at Pembroke Yard, in 1854; launched in 1855. Designed by Surveyor's Department. For a short time, while building, this vessel was called the *Windsor Castle*.

The *Investigator*, 34 horse-power, length 120 ft. 10½ in., breadth 16 ft. 0½ in., draught 4 ft. 3 in. forward, 4 ft. 6 in. aft, tonnage 149, speed 9·1 knots. Laid down at Deptford Yard, in June, 1861; launched in November, 1861. Designed by Controller's Department.

The *Alberta*, royal yacht, 160 horse-power, length 160 ft., breadth 22 ft. 8 in., draught 7 ft. forward, 7 ft. aft, tonnage 391, speed 15·3 knots (ship light). Laid down at Pembroke Yard, in February, 1863; launched in October, 1863. Designed by Controller's Department.

TROOP SHIPS.

The *Simoom*, built of iron, 8 guns, 400 horse-power, length 246 ft., breadth 41 ft., draught 15 ft. 3 in. forward, 19 ft. 2 in. aft, tonnage 1,980, speed 10·647 knots. Built by contract by Mr. Napier, at Glasgow. Laid down in October, 1845; launched in May, 1849. Designed by Mr. Napier. The armament was as follows:—

	No.	Pounders	Weight
	6	32	cwt. 25
	2	32	56
Total	8		

The complement of men was 174.

The *Megara*, built of iron, 6 guns, 350 horse-power, length 207 ft., breadth 37 ft. 10 in., tonnage 1,395, draught 14 ft. 4 in. forward, 16 ft. 6 in. aft, speed 10·861 knots. Built by contract by Messrs. Fairbairn and Co., at Millwall. Laid down August, 1845; launched May, 1849. Designed by Mr. Fairbairn. The armament was six 32-prs., 25 cwt., 6 ft. The complement of men was 167.

The *Himalaya*, built of iron, 6 guns, 700 horse-power, length 340 ft. 5 in., breadth 46 ft. 1½ in., draught 18 ft. 10 in. forward, 21 ft. 3 in. aft, speed 12·805 knots, tonnage 3,453. Built by Messrs. Mare and Co., at Blackwall, in 1853, for the Peninsula and Oriental Company, from whom she was purchased in July, 1854. The armament was six 32-prs., 25 cwt., 6 ft. The complement of men was 213.

The *Resolute*, 2 guns, built of iron, 400 horse-power, length 282 ft. 10½ in., breadth 36 ft. 4½ in., draught 17 ft. 3 in. forward, 17 ft. 6 in. aft., tonnage 1,793, speed 11·447 knots. Built by Mr. Laird at Birkenhead. Purchased and launched in 1855. Designed by Mr. Laird. Her armament was two 18-pr. carronades. Her name was changed to *Adventure* in February, 1857. There was also built on the same lines, the *Assistance* at Birkenhead, in 1855.

The *Orontes*, built of iron, 2 guns, 500 horse-power, length 300 ft. 1 in., breadth 44 ft. 8 in., tonnage 2,823, draught 22 ft. forward, 22 ft. 6 in. aft, speed 10·88 knots. Built by contract by Messrs. Laird Brothers, at Birkenhead. Laid down July, 1861; launched November, 1862. Designed by Controller's Department. There was also built on the same lines, the *Tamar*, at Millwall, by Messrs. Samuda, in 1862. The armament was two 40-pr. Armstrong's, 32 cwt., 10 ft.

The *Euphrates*, built of iron, 700 horse-power, one of a class of five to form a direct service for the transport of troops to and fro between England and India; length 360 ft., breadth 49 ft., draught 19 ft. forward, 21 ft. aft, tonnage 4,173, speed 13·5 knots (esti-

mated). Building by contract by Messrs. Laird Brothers. Laid down in May, 1865. Designed by the Controller's Department. There are also building on the same lines the *Jumna*, by Messrs. Palmer Brothers; the *Malabar*, by Messrs. Napier and Sons; the *Crocodile*, by Messrs. Wigram; and the *Sarapis*, by the Thames Iron Shipbuilding Company.

IRON-CASED SHIPS.

THIRD CLASS.

The *Trusty*, built of wood, 14 guns, 150 horse-power, length 173 ft. 6¼ in., breadth 45 ft. 1¾ in., draught 8 ft. 4 in. forward, 8 ft. 8 in. aft, tonnage 1,538, speed 4·5 knots. Built by contract, at Limehouse, by Messrs. Wigram. Laid down October, 1854; launched in May, 1855. Broken up in 1865, by Messrs. Castle and Beech. Designed by Surveyor's Department. There were also built about the same time, on the same lines, the *Meteor*, at Limehouse, by Messrs. C. Mare and Co.; the *Glutton*, at Limehouse, by Messrs. Green; and the *Thunder*, at Limehouse, by Messrs. Mare and Co. The armament was fourteen 68-prs., 95 cwt., 10 ft. The complement of men was 200.

The *Erebus*, built of iron, 16 guns, 200 horse-power, length 186 ft. 8½ in., breadth 48 ft. 6 in., draught 8 ft. 6 in. forward, 9 ft. 3 in. aft, tonnage 1,954, speed 4·6 knots. Built by contract, at Glasgow, by Messrs. Napier. Laid down in January, 1856; launched in April, 1856. Designed by Surveyor's Department, after a French model sent to England. There were also built on the same lines, about the same time, the *Terror*, at Newcastle-on-Tyne, by Messrs. Palmer; the *Ætna*, at Chatham; and the *Thunderbolt*, at Millwall, by Messrs. Samuda. The armament was sixteen 68-prs., 95 cwt., 10 ft. The complement of men was 200. These and the *Trusty* class were the first iron-cased ships constructed for H. M. Navy.

The *Research*, built of wood, 4 guns, 200 horse-power, length 195 ft., breadth 38 ft. 6 in., draught 12 ft. 1½ in. forward, 14 ft. 8 in. aft, tonnage 1,253, speed 10·354 knots. Laid down at Pembroke Yard, in September, 1861, as a 17-gun screw-sloop; commenced converting to an armour-plated ship September, 1862; launched August, 1863. Designed by Mr. Reed and the Controller's Department. The armament was:—

No.	
2	6½ ton guns.
2	100 pr. Somerset 6½ ton.

Total . 4

The complement of men was 120.

The *Enterprise*, built of wood, 4 guns, 160 horse-power, length 180 ft., breadth 36 ft. ½ in., draught 11 ft. 10 in. forward, 15 ft. 8 in. aft,

tonnage 993, speed 9·944 knots. Laid down at Deptford Yard, in May, 1862; launched in February, 1864. Designed by Mr. Reed and the Controller's Department. The armament was as as follows:—

No.	
2	6½ ton guns.
2	100 pr. Somerset 6½ ton.
Total	4

The complement of men was 129.

The *Viper*, built of iron, 2 guns, 160 horse-power, length 160 ft., breadth 32 ft., draught 10 ft. 5½ in. forward, 11 ft. 5½ in. aft, tonnage 737, speed 8·9 knots. Built by contract on the River Thames, by Messrs. J. and W. Dudgeon. Laid down in June, 1864; launched in December, 1865. Designed by Controller's Department. There was also built on the same lines, the *Vixen*, on the River Thames, by Mr. C. Lungley, in 1865. The armament was two 6-ton rifled guns; the complement of men was 80.

The *Waterwitch*, built of iron, 2 guns, 160 horse-power, length 162 ft., breadth 32 ft., draught 9 ft. 9 in. forward, 9 ft. 10 in. aft, tonnage 778, speed 8·8 knots (ship light). Built by contract on the Thames by the Thames Iron Shipbuilding Company. Laid down November, 1864; launched in June, 1866. Designed by Rear-Admiral Elliot and the Controller's Department; to be propelled on the hydraulic principle. The armament was two 6-ton rifled guns; the complement of men was 80.

SECOND CLASS.

The *Favorite*, built of wood, 10 guns, 400 horse-power, length 225 ft., breadth 46 ft. 9½ in., draught 19 ft. 7 in. forward, 22 ft. 7 in. aft, tonnage, 2,094, speed 11·825 knots. Laid down at Deptford Yard, in August, 1860, as a 22-gun screw corvette; commenced converting to an iron-cased ship in June, 1862; launched in July, 1864. Designed by Mr. Reed and the Controller's Department. The armament was as follows, viz.:—

No.	Pounders	Weight
4	100	cwt. 120
6	110 Armstrongs	
Total	10	

The complement of men was 200.

The *Pallas*, built of wood, 6 guns, 600 horse-power, length 225 ft., breadth 50 ft., draught 18 ft. 3 in. forward, 24 ft. 1 in. aft, tonnage 2,372, speed 13·058 knots. Laid down at Woolwich Yard, in October, 1863; launched in March, 1865. Designed by Mr. Reed and the Controller's Department. The armament was as follows, viz.:—

No.	Pounders	Weight
4	100	6½ ton guns.
2	110 pr. Armstrongs	
Total	6	

The complement of men was 225.

The *Penelope*, built of wood, 10 guns, 600 horse-power, length 260 ft., breadth 50 ft., draught 15 ft. 9 in. forward, 16 ft. 9 in. aft, tonnage 9,997, speed 12 knots (estimated). Laid down at Pembroke Yard, in September, 1865. Designed by Controller's Department. The armament was to be:—

No.	Pounders	Weight
8	300	12 ton guns
2	40 Armstrongs	
Total	10	

The complement of men was 350.

FIRST CLASS.

The *Warrior*, built of iron, 40 guns, 1,250 horse-power, length 380 ft. 2 in., breadth 58 ft. 4 in., draught 25 ft. 6 in. forward, 26 ft. 5 in. aft, tonnage 6,109, speed 14·356 knots. Built by contract at Blackwall, by the Thames Iron Shipbuilding Company. Laid down in May, 1859; launched in December, 1860. Designed by Surveyor's Department. There was also built on the same lines, the *Black Prince*, at Glasgow, by Messrs. Napier and Son, in 1861. The armament was as follows:—

No.	Pounders	Weight
Main deck	34	68
Upper „	2	68 pivot
	4	40 Armstrongs
Total	40	

The complement of men was 635.

The *Achilles*, built of iron, 20 guns, 1,250 horse-power, length 380 ft., breadth 58 ft. 3½ in., draught 25 ft. 11 in. forward, 26 ft. 11 in. aft, tonnage 6,121, speed 14·332 knots. Laid down at Chatham Yard, in August, 1861, in a dock; undocked in December, 1863. Designed by the Controller's Department, on lines very similar to the *Warrior* and *Black Prince*, built in 1860. The armament was as follows:—

No.	
8	6½ ton guns.
8	6½ ton rifled guns.
4	6½ ton „
Total	20

The complement of men was 705.

The *Defence*, built of iron, 22 guns, 600 horse-power, length 280 ft., breadth 54 ft. 2 in., draught 24 ft. 3 in. forward, 25 ft. 5 in. aft, tonnage 3,720, speed 11'618 knots. Built by contract at Jarrow, by Messrs. Palmer Brothers. Laid down in December, 1859; launched in April, 1861. Designed by Surveyor's Department. There was also built on the same lines the *Resistance*, at Poplar, by Messrs. Westwood and Co., in 1861. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck .	16	68	95	10 0
Upper „ {	2	68 pivot	95	10 0
	4	40 Armstrongs		
Total .	22			

The complement of men was 450.

The *Hector*, built of iron, 32 guns, 800 horse-power, length 280 ft. 2 in., breadth 56 ft. 5 in., draught 24 ft. 2 in. forward, 25 ft. 8 in. aft, tonnage 4,089, speed 12'36 knots. Built by contract at Glasgow, by Messrs. Napier and Son. Laid down in March, 1861; launched in September, 1862. Designed by Controller's Department. There was also built on the same lines the *Valiant*, at Poplar, commenced by Messrs. Westwood and Co., and completed by the Thames Iron Shipbuilding Company in 1863. The armament was as follows:—

	No.	Pounders	Weight
			cwt.
Main deck {	24	68	95
Upper „ .	6	110 Armstrongs	82
	2	110 „	82
Total .	32		

The complement of men was 500.

The *Minotaur*, built of iron, 50 guns, 1,350 horse-power, length 400 ft., breadth 59 ft. 4 $\frac{3}{4}$ in., draught 23 ft. 1 in. forward, 24 ft. 1 in. aft, tonnage 6,621, speed 14'779 knots (ship light). Built by contract at Blackwall, by the Thames Iron Shipbuilding Company. Laid down in September, 1861; launched in December, 1861. Designed by Controller's Department. There were also built on the same lines, the *Agincourt*, at Birkenhead, by Messrs. Laird Brothers, in 1865; the *Northumberland*, at Millwall, commenced by Messrs. Mare and Co., and completed by the Millwall Company in 1866. The armament was as follows:—

	No.	Pounders	Weight	Length
			cwt.	ft. in.
Main deck {	26	68	95	10 0
Upper „ {	8	110 Armstrongs	82	10 0
	6	110 „	82	10 0
	10	70 „	60	9 2
Total .	50			

The complement of men was 705.

The *Zealous*, built of wood, 20 guns, 800 horse-power, length 252 ft., breadth 58 ft. 7 in., draught 25 ft. forward, 25 ft. 9 in. aft, tonnage 3,716, speed 11'7 knots. Laid down at Pembroke Yard in October, 1859; launched March, 1864. Designed by Mr. Reed and the Controller's Department. The armament was as follows:—

	No.	Pounders	Weight
			cwt.
Main deck . {	8	110 Armstrongs	82
	8	68	95
Upper „ .	4	110 Armstrongs	82
Total .	20		

The complement of men was 455. This ship was originally designed and commenced as a line-of-battle ship of 91 guns, 3,716 tons, and 800 horse-power; but by an Admiralty Order of July 2, 1862, she was converted to an armour-plated ship of 20 guns.

The *Royal Oak*, built of wood, 34 guns, 800 horse-power, length 273 ft., breadth 58 ft. 6 in., draught 23 ft. 8 in. forward, 25 ft. 8 in. aft, tonnage 4,056, speed 12'529 knots. Laid down at Chatham Yard, in May, 1860; launched in September, 1862. Designed by Controller's Department. There were also built on the same lines, the *Caledonia*, at Woolwich, in 1862; the *Prince Consort*, at Pembroke, in 1862; and the *Ocean*, at Devonport, in 1863. The armament was as follows:—

	No.	Pounders	Weight
			cwt.
Main deck {	24	68	95
Upper „ .	8	110 Armstrongs	82
	2	110 Armstrongs	82
Total .	34		

Her complement of men was 605. The ships of this class were originally designed and commenced as line-of-battle ships of 91 guns, 3,716 tons, and 800 horse-power; but, by Admiralty Order of May 14, 1861, they were converted to armour-plated ships.

The *Royal Alfred*, built of wood, 18 guns, 800 horse-power, length 273 ft., breadth 58 ft. 7 in., draught 19 ft. 8 in. forward, 22 ft. 9 in. aft, tonnage 4,068, speed 13'041 knots (ship light). Laid down at Portsmouth Yard, in December, 1859; launched October, 1864. Designed by Controller's Department. The armament was as follows:—

	No.	Pounders	Weight
			cwt.
Main deck {	10	9-inch	12 $\frac{1}{2}$
Upper „ .	4	7-inch	6 $\frac{1}{2}$
	4	7-inch	6 $\frac{1}{2}$
Total .	18		

The complement of men was 600. This ship was originally designed and commenced as a line-of-battle ship of 91 guns, 3,716 tons, 800 horse-power, but by Admiralty Order of June 5, 1861, she was converted into an iron-cased ship.

The *Lord Clyde*, built of wood, 24 guns, 1,000 horse-power, length 280 ft., breadth 58 ft. 11 in., draught 22 ft. 3 in. forward, 24 ft. 9 in. aft, tonnage 4,067, speed 13·534 (ship light). Laid down at Pembroke Yard, in September, 1863; launched in October, 1864. Designed by Mr. Reed and the Controller's Department. The armament was as follows:—

Main deck	No. 20	6-ton guns.
Upper „	4	110-pr. Armstrongs.
Total	24	

The complement of men was 605.

The *Lord Warden*, built of wood, 24 guns, 1,000 horse-power, length 280 ft., breadth 59 ft. 0½ in., draught 22 ft. 3 in. forward, 24 ft. 9 in. aft, tonnage 4,080, speed 13·5 knots (estimated). Laid down at Chatham Yard, in December, 1863; launched in May, 1865. Designed by Mr. Reed and the Controller's Department. The armament was as follows:—

Main deck	No. 20	6-ton guns.
Upper „	4	110-prs. Armstrongs.
Total	24	

The complement of men was 605.

The *Bellerophon*, built of iron, 14 guns, 1,000 horse-power, length 300 ft., breadth 56 ft. 1 in., draught 21 ft. 6 in. forward, 26 ft. 5 in. aft, tonnage 4,270, speed 14·171 knots. Laid down at Chatham Yard, in December, 1863; launched in April, 1865. Designed by Mr. Reed and the Controller's Department. The armament was as follows:—

Main deck	No. 10 4	Prs. 300 110 Armstrongs.
Total	14	

The complement of men was 475.

The *Hercules*, built of iron, 12 guns, 1,200 horse-power, length 325 ft., breadth 59 ft., draught 22 ft. 6 in. forward, 26 ft. 6 in. aft, tonnage 5,226, speed 14 knots (estimated). Laid down at Chatham Yard, in February, 1866. Designed by the Controller's Department. The armament is to be as follows:—

Main deck	No. 8 2	18-ton guns. 12 „
Upper „	2	64 prs., 65 cwt.
Total	12	

The complement of men to be 600.

TURRET SHIPS.

The *Scorpion*, late *El Tousson*, built of iron, 4 guns, 350 horse-power, length 224 ft. 6 in., breadth 42 ft. 4½ in., draught 14 ft. 11 in. forward, 16 ft. 4 in. aft, tonnage 1,833, speed 10·515 knots. Built by Messrs. Laird, at Birkenhead. Launched in July, 1863. Designed by Messrs. Laird. There was also built on the same lines, the *Wivern*, late *El Monassir*, at Birkenhead, at the same time. Her armament was four 12-ton guns in turrets. The complement of men was 150.

The *Prince Albert*, built of iron, 4 guns, 500 horse-power, length 240 ft., breadth 48 ft. 1 in., draught 17 ft. 9 in. forward, 19 ft. 10 in. aft, tonnage 2,529, speed 11·652 knots. Built by contract, at Blackwall, by Messrs. Samuda. Laid down in April, 1862; launched in May, 1864. Designed by Controller's Department. Her armament was four 12-ton guns in turrets. The complement of men was 200.

The *Royal Sovereign*, built of wood, 5 guns, 800 horse-power, length 240 ft. 7 in., breadth 62 ft. 2 in., draught 21 ft. 2 in. forward, 24 ft. 8 in. aft, tonnage 3,765, speed 11·003 knots. Commenced converting to an iron-cased turret ship in April, 1862, at Portsmouth Yard; undocked in March, 1864. Designed by Controller's Department. The armament was five 12-ton guns in turrets. The complement of men was 200. This ship was originally designed and built as a line-of-battle ship of 131 guns, 3,765 tons, and 800 horse-power. Launched in April, 1857; but by Admiralty Order, of April 3, 1862, she was converted to an iron-cased turret ship.

The *Monarch*, built of iron, 6 guns, 1,100 horse-power, length 330 ft., breadth 57 ft. 6 in., draught 22 ft. 6 in. forward, 26 ft. aft, tonnage 5,100, speed 14 knots (estimated). Laid down at Chatham Yard, in June, 1866. Designed by the Controller's Department. Her armament is to be four 22-ton guns in turrets, and two 100-prs. The complement of men to be 525.

The *Captain*, built of iron, 6 guns, 900 horse-power, length 320 ft., breadth 53 ft. 3 in., draught 22 ft. 6 in. forward, 23 ft. 6 in. aft, tonnage 4,272, speed 14 knots (estimated). Building by contract by Messrs. Laird & Co., at Birkenhead. Designed by Messrs. Laird and Captain Coles.

3. MODELS OF SYSTEMS OF CONSTRUCTION OF IRON-CASED SHIPS.

Half midship section (on a scale of ½-an-inch to a foot) of H. M. iron-cased frigate *Warrior*, launched December, 1860, showing the detailed arrangement of the framing, and mode of combining the several parts of the hull amidships;

the features having the greatest claim to novelty being distinguished by letters:—

- A Flat keel plates, worked in two thicknesses, continuously.
- B Vertical keel plate, continuous.
- C Flat keelson or gutter plate, continuous, also forming part of inner-bottom plating.
- D Box keelson, continuous.
- E Box boiler-bearers.
- F Floor plate, fitted between vertical keel and lower longitudinal frame.
- G Short transverse frame plates, fitted between longitudinal frames.
- H Longitudinal frames, continuous.
- I Bilge keels.
- K Transverse frame, continuous.
- L Wood backing in two thicknesses, of 10 inches longitudinally, and 8 inches vertically.
- M $4\frac{1}{2}$ -inch armour-plates.

Half midship section (on a scale of $\frac{1}{2}$ -an-inch to a foot) of H. M. iron-cased frigate *Bellerophon*, launched April, 1865, showing the detailed arrangement of the framing and mode of combining the several parts of the hull amidships; the features having the greatest claim to novelty being distinguished by letters:

- A Flat keel plates, worked in two thicknesses, continuously.
- B Vertical keel plates, continuous.
- C Vertical keelson, continuous.
- D Watertight transverse frames, fitted between longitudinals.
- E Short transverse bracket frames, fitted between longitudinals.
- F Longitudinal frames, continuous.
- G Transverse angle irons.
- H Transverse frames.
- I Inner bottom plating.
- K Box boiler bearers.
- L Wing passage bulkhead.
- M Transverse watertight bulkhead.
- N Plates to support the end of beams under battery.
- O Girders to support the beams under battery.
- P Gutter for draining decks, continuous.
- Q Bracket frames, to form topsides.
- R Bilge keels.
- S Topside plates behind armour, worked in two thicknesses, continuously.
- T External longitudinal girders, continuous.
- U Wood backing 10 inches thick, worked longitudinally.
- V 6-inch armour plates.

Stern framing (on a scale of $\frac{1}{2}$ -an-inch to a foot) of H. M. iron-cased frigate *Bellerophon*, launched April, 1865, showing the stern post, stern tube, after part of keels, and mode of securing the lower part of the balanced rudder.

Half midship section (on a scale of $\frac{1}{2}$ -an-inch to a foot) of H. M. iron-cased frigate *Hercules*,

building at Chatham, showing the detailed arrangement of the framing, and mode of combining the several parts of the hull amidships; the features having the greatest claim to novelty being distinguished by letters:—

- A Flat keel plates, worked in two thicknesses, continuously.
- B Vertical keel plates, continuous.
- C Vertical keelson, continuous.
- D Watertight transverse frames, fitted between longitudinals.
- E Short transverse bracket frames, fitted between longitudinals.
- F Longitudinal frames, continuous.
- G Transverse angle irons.
- H Transverse frames.
- I Inner bottom plating.
- K Box boiler bearers.
- L Wood fillings, worked longitudinally between the ship's side and the side bulkhead.
- M Side bulkhead.
- N Transverse watertight bulkhead.
- O Gutters for draining decks, continuous.
- P Bilge keels.
- Q Topside plates behind armour, worked in two thicknesses, continuously.
- R External longitudinal girders, continuous.
- S Wood backing, 12-in. thick, worked longitudinally.
- T 9-inch armour plates.
- U 8-inch " "
- W 6-inch " "

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4. MODELS OF THE GENERAL FITTINGS OF MEN-OF-WAR,

Including Condensing & Cooking Apparatus, &c.

MAGAZINE.—Section (on a $\frac{1}{2}$ inch scale) showing the magazine and all internal works, and of the light, handing, and shell rooms, with all light boxes, lamps, lanterns, and guards thereto, also the ventilating and telegraph arrangements.

FITTINGS FOR PIVOT GUN.—Section (on a $\frac{1}{2}$ inch scale) showing the upper deck of H. M. S. *Zebra* with the 68-pr. pivot gun in position, with radius and other plates, sockets, bolts, &c.

FITTINGS FOR BROADSIDE GUN.—Section (on a $\frac{1}{2}$ inch scale) of H. M. S. *Caledonia* between decks, showing the ports and a $6\frac{1}{2}$ -ton gun in position, with the ring and shackle eyebolts to ports, training and rear-tackle bolts and sockets in deck, dismounting cranks and bolts, muzzle lashing bolts, and all others; also the cranks and hooks for stowing shell, grape, and canister boxes, sponge, stores, &c.

FITTINGS FOR CARRONADE.—Section (on a $\frac{1}{2}$ inch scale) showing a port, with plates, bolts sweep pieces, and other fittings for carronades.

PORT LIDS.—Section (on a $\frac{1}{2}$ inch scale) of a ship's side, showing a gun-deck port, with the port lids and means of securing the same.

STERN SASHES.—Stern of a ship (on a $\frac{1}{2}$ inch scale) showing the munions and stern sashes, fitted with blinds, or deadlights.

SIDE AIR SCUTTLE.—Section (on a $\frac{1}{2}$ inch scale) showing a side air scuttle, with all fastenings, rings, bolts, nozzles for pendants, &c.

LANG'S TUBE SCUTTLE.—Section (on a 3 inch scale) of a ship's side, showing the Lang's tube scuttle, plug, and all fittings connected therewith.

SKYLIGHT.—Section (on a 1 inch scale) showing a skylight, with sashes and deadlights.

IRON SCUTTLE (full-sized) including grating and cover, as fitted in the decks over the coal bunkers, for ventilating them, and for coaling the ship.

VENTILATION.—Half section (on a $\frac{1}{2}$ inch scale) of about 50 feet of the midship part of H. M. S. *Nympe*, showing the details of the ventilating arrangements, on the plan of Dr. Edmunds, as adopted in that and other vessels.

A Ventilating trunks on each side of the ship, extending about three-fourths of her length, for withdrawing foul air from the bilges and lower deck.

B Holes, one in each opening, for ventilating the bilges.

C Holes, one in each opening, for ventilating the lower deck.

D Tubes for conveying the foul air from the trunks A to the hollow iron masts.

E Tubes for conveying the foul air from the trunks A to the funnel, when it is up, or to the air casing round the funnel, when it is down.

VENTILATION OF ENGINE ROOM, &c.—Section (on a $\frac{1}{4}$ inch scale) showing the ventilating arrangements to engine-room, stokehole, shaft passage, &c.

VENTILATING RIDING BITT.—Section (on a $\frac{1}{2}$ inch scale) of the deck of H. M. S. *Bellerophon*, showing the wrought-iron ventilating riding bitts, on the plan patented by Messrs. Harfield, with the vertical web plates for connection with lower deck, as fitted in that and other ships, together with the chain cable, compressors, and controllers.

CAPSTAN.—Model (on a 1 inch scale) of a single wrought-iron capstan and cable holder, with adjustable stops, on the plan patented by Messrs. Harfield & Co., showing also the direct lead of the chain cable, deck rollers, &c., as fitted to ships of the Royal Navy.

STOWING ANCHOR.—Model (on a $\frac{1}{2}$ inch scale) of the bows of H. M. S. *Bellerophon*, showing the anchor with the necessary fittings for stowing and letting go, including bolsters, chocks and linings, bill-boards and plates,

shank painter, slip stopper, crutches, fish davits and steps, and all necessary bolts and cleats.

HAWSE-HOLE.—Section (on a $\frac{1}{2}$ inch scale) of the bow of a ship, showing the hawse-hole, and method of fitting the plugs and bucklers.

RUDDER.—Model (on a $\frac{1}{2}$ inch scale) of the balanced rudder of H. M. S. *Bellerophon*, showing the tiller and yoke with tiller ropes and blocks, the paul or locking plate, and plate to secure the tiller, &c.; also the rudder pendants and other fittings.

LUMLEY RUDDER.—Model showing Mr. Lumley's first or chain system. First fitted to the *Bullfinch* gunboat at Portsmouth, October 1862; then applied to the *Columbine*, steam corvette, *Lizard*, *Locust*, *Otter*, *Adder*, and other vessels. Patented by Mr. Henry Lumley, Assoc. I.N.A.

STEERING WHEEL.—Model (on a 2 inch scale) of the wheel stanchions and steering wheel complete, with index plate and all fittings, as fitted in H. M. S. *Bellerophon*, and other ships of the Royal Navy.

DISPENSARY.—Model (on a 1 inch scale) of a dispensary with all fittings.

PANTRY.—Section (on a 1 inch scale) showing the pantry and all internal fittings.

SEAMEN'S SHELVES.—Section (on a 1 inch scale) showing the seamen's shelves, with plate racks, &c.

BAG RACKS.—Section (on a 1 inch scale) showing the seamen's bag racks and method of securing the mess tables and stools thereto.

HATCH AND LADDER WAYS.—Section (on a 1 inch scale) showing the companion and hoods over hatch and ladder ways.

ACCOMMODATION LADDER.—Section (on a $\frac{1}{2}$ inch scale) of a ship's side, showing the accommodation ladder, with platform, stanchions, and all necessary fittings.

CRUTCHES FOR BOATS, &c.—Section (on a $\frac{1}{2}$ inch scale) of a deck, showing the crutches with the boats and booms stowed and all spare gear.

HAMMOCK BERTHING.—Section (on a $\frac{1}{2}$ inch scale) showing the hammock berthing, with stanchions, wash-boards and brackets, rails and battens for securing the hammocks; also shifting pieces over the ports.

BOAT LOWERING APPARATUS.—Model (on a 2 inch scale) of a section of a ship's side, with a 28-foot cutter suspended at the davits by Kynaston's boat lowering hook; also a specimen hook, full size.

LIGHTS.—Models (on a 1 inch scale) of a bow and of a paddle-box, showing the light-boxes; also a light-box, full size.

EVOLUTION BRIDGE.—Section (on a $\frac{1}{2}$ inch scale) showing the evolution-bridge, with stanchions and ladders, the voice pipes for

municating with the engine-room, and also the telegraph arrangement.

LIGHTNING CONDUCTORS.—Section (on a $\frac{1}{2}$ inch scale) showing the method of fitting the lightning conductors to the masts in connection

with the ship, on the plan of Sir William Snow Harris.

CHANNELS.—Section (on a $\frac{1}{2}$ inch scale) showing the channels, with the dead-eyes and preventer plates.

BLOCKS:—

Description	Size	For what purpose used
WOODEN.		
Single thick, single scored	10	Fore and main top burtons
Do. double do.	11	Spanker boom sheets
Single thin, single do.	18	Main topsail tie
Do. double do.	20	Fore and main topsail braces
Clumps	7	Swinging boom guys
Double thick, single scored	10	Fore and main truss falls
Do. double do.	11	Spanker sheets
Double thin, single do.	20	Main stay tackle pendants
Longtackle	13	Spanker boom topping lift falls
Sister	18	Mizen topsail lifts
Treble thick, double scored	28	Careening purchase (sea store)
Block, fourfold	28	Do. do.
Heart, single scored	18	Fore and main stays
Dead eyes shroud	16	Do. lower shrouds
Snatch, iron bound	24	Fore and aft leads
Nine pin	11	Leads round fore and main masts
Toptackle, single, iron bound	20	Toptackles
Do. double, do.	15	
Do. treble, do.	18	
Treble thick, with brass shivers, iron bound	20	Screw propeller purchase
Do. with lignum vitæ shivers, do.	20	
Double thick, with brass shivers, do.	12	Leads on deck for lower lifts
Do. with lignum vitæ shivers, do.	12	
Single thick, with brass shivers do.	12	
Do. with lignum vitæ shivers, do.	12	Do. top staysail halyards
Cat, treble, with swivel hook, iron bound	15	Do. Mizen topsail do.
MALLEABLE CAST IRON.		
Single	10	Gunner's slide tackles
"	16	Topsail ties
"	10	Peak and throat halyards
"	10	Engine-room purposes
"	12	Leads on deck
"	12	Do.
"	18	Leading blocks
"	10	Do.
"	14	Lifts at cap
"	14	Do.
"	18	Jeer falls
"	18	Do.
Double	12	Topsail halyards
"	12	Quarter boats falls, davit head
Treble	18	Jeers and toptackle falls
Dead eyes for wire, upper	—	Lower shrouds
" lower		
" rope, upper	—	Topmast backstays
" " lower	—	

LIFE-BUOY.—Model (on a 1 inch scale) of the stern of a ship, showing the life buoy, with all necessary fittings for letting go, guards &c.; also a life buoy, full size.

(full size) and all fittings connected therewith; also a chronometer.

BITTACLES.—Bittacles on stand (full size). with compass lamp and all fittings connected therewith.

CHRONOMETER STAND.—Chronometer stand

DOWNTON'S PUMPS (full size), and all fittings connected therewith, including cranks, &c., for working them.

CONDENSERS (full size) of H. M. S. *Sappho*, suitable for a complement of 140 men, with all the requisite fittings, including Kingston's cocks and valves. The condenser shown is only one of the pair to be supplied.

FIRE HEARTH (full size), on Mr. Blake's plan, suitable for a complement of 140 men, as supplied for H. M. S. *Sappho*.

5. SPECIMENS OF SUCH ARTICLES OF FOOD

In use in Her Majesty's Navy as are Manufactured in the Government Victualling Yards.

Biscuit; Chocolate; Mustard; Flour; Biscuit-meal; Oatmeal; Salt Beef; Preserved Beef; Essence of Beef.

NOTE.—Manufactured in the Royal Victoria Yard at Deptford.

6. SPECIMENS OF BOATS IN USE IN H. M. NAVY.

STEAM LAUNCH, as supplied to the larger class of ships of H. M. Navy: diagonally built of two thicknesses; length 42 ft., breadth 11 ft. 6 in., depth 3 ft. 9 in., fitted with four cylinder twin-screw engines of 6 horse-power collectively (by Messrs. Maudsley and Sons), constructed for rowing eighteen oars, double banked, to carry one 12-pounder breech-loading gun, at bow or stern, and adapted for weighing small anchors, hauling in or under running of hawsers, &c. Rig: two standing lugs, foresail and jib. With this boat there are the following fittings, viz.: two masts and rigging complete, two yards, four boom crutches, sixteen oars 17 ft. long and two 16 ft. long, two wood tillers, one anchor, four boat hooks, one pump, one bailer, one bucket, two awning stanchions, one set of awnings, one ensign and staff, one pendant and staff, twenty boat fenders, one canvas boat cover, and one 12-pounder breech-loading gun with carriage and slide complete (newest pattern).

PINNACE, as supplied to the smaller class of ships of H. M. Navy, or for the use of officers of subordinate rank: diagonally built of two thicknesses, length 32 ft., breadth 9 ft. 4 in., depth 3 ft. 2 in., constructed for rowing fourteen oars, double banked, to carry a 12-pounder gun at bow or stern, and adapted for weighing small anchors, hauling in or under running of hawsers, &c. Rig: two standing lugs, foresail and jib. With this boat there are the following fittings, viz.: two masts and rigging complete, two yards, four boom crutches, twelve oars 16 ft. long and two 15 ft. long, two wood tillers, one anchor, four boat hooks, twelve barricoes, one pump, one bailer, one bucket, two awning stanchions one set of awnings, one ensign and staff, one pendant and staff, eighteen

boat fenders, one canvas boat cover, and one 12-pounder breech-loading gun with carriage and slide complete (newest pattern).

CUTTER, for general use and for the conveyance of seamen and the lighter stores: it is shorter and rather broader in proportion to the length than the launch, is clencher built and constructed to row twelve oars, double banked, and for sailing, length 28 ft., breadth 7 ft. 7 in., depth 2 ft. 6½ in. Rig: one dipping lug, one standing lug. With this boat there are the following fittings, viz.: two masts and rigging complete, two yards, eight oars 15 ft. long and four 14 ft. long, one iron tiller and one wood, one anchor, three boat hooks, six barricoes, one bailer, one bucket, two awning stanchions, one awning, one ensign and staff, one pendant and staff, fourteen boat fenders, one canvas boat cover, one rocket tube for Hall's 24-pound rocket (of latest approved pattern).

JOLLY BOAT, like a small cutter for general use: clencher-built, and constructed to row eight oars, double banked, and for sailing; length 18 ft., breadth 6 ft., depth 2 ft. 2 in. Rig: two sails, fore dipping lug, mizen standing lug. With this boat there are the following fittings, viz.: two masts and rigging complete, two yards, six oars 12 ft. long and two 11 ft. long, one iron tiller and one wood, one anchor, three boat hooks, two barricoes, one bailer, two awning stanchions, one awning, one ensign and staff, one pendant and staff, ten boat fenders, and one canvas boat cover.

DINGY, small boat for general use: clencher-built, and constructed to row four oars, single banked; length 14 ft., breadth 5 ft. 2 in., depth 2 ft. 2 in. Rig: one dipping lug. With this boat there are the following fittings, viz.: one mast and rigging complete, one yard, two oars 12 ft. long and two 10 ft. long, one wood tiller, one anchor, two boat hooks, one bailer, two awning stanchions, one awning, one ensign and staff, one pendant and staff, six boat fenders, one canvas boat cover.

GIG, a light boat for speedy rowing, having a slight frame: clincher-built, and constructed to row six oars, single banked; length 28 ft., breadth, 5 ft. 6 in., depth, 2 ft. 2 in. Rig: one dipping lug. With this boat there are the following fittings, viz.: one mast and rigging complete, one yard, four oars 18 ft. long and two 17 ft. long, brass yoke, one anchor, three boat-hooks, one barricoe, one bailer, two awning stanchions, one ensign and staff, one pendant and staff, ten boat fenders, and canvas boat cover.

WHALE BOAT.—A light boat for speedy rowing, with great sheer of gunwale for beaching through a surf, double-headed; shorter keel and more raking stem and stern port, to facilitate her being rapidly turned to place her end-on to a rolling sea; clencher-built, and constructed to row six oars, single-banked; length 27 ft., breadth 5 ft. 4 in., depth 2 ft. 2 in. Rig: one dipping lug. With this boat there are the following fittings, viz.: one mast

and rigging complete, one yard, four oars 17 ft. and two 16 ft. long, one tiller and yoke, one anchor, three boat hooks, one barricoe, one bailer, two awning stanchions, one ensign and staff, one pendant and staff, ten boat fenders, and one canvas boat cover.

CUTTER LIFE-BOAT.—This boat represents an improved service cutter, combining the essentials of a life-boat—extra buoyancy, self-discharge of water by means of six self-acting valves in twenty-three seconds, self-righting power if upset, ballasting, good stowage room for a shipwrecked crew, and great stability; diagonally built of two thicknesses, with a layer of painted calico between the planks, twenty planks of each skin are of one length, and extend from gunwale to gunwale. The chief peculiarity of the boat, which distinguishes it from the ordinary service cutter, is its being made unsubmergible, by fitting to it a water-tight deck, detached air-cases round the sides under the thwarts, and the portable cases in the extremes, which gives the self-righting power, assisted by the iron keel. Length, 28 ft., breadth 7 ft. 6 in., depth 3 ft. 3 in., and constructed to row ten oars double banked. Rig: one standing lug and jib for foul weather, and two standing lugs and jib for fine weather. With this boat there are the following fittings, viz.: two masts and rigging complete, two yards, ten oars 14 ft. long and two sweep oars for steering, ten galvanised iron crutches on tholes for rowing, and two steering crutches, one yoke, one tiller, one anchor, two boat-hooks, six barricoes, one bailer, one bucket, one ensign and staff, one pendant and staff, fourteen boat fenders, one canvas cover, twelve cork life-belts, one life-buoy, one canvas drogue, ten cork floats, one hand grapnel and line, one boat compass (furnished with lamp, oil-can, matches, &c.), one loaded cane and line, one brass pump.

WHALE LIFE-BOAT.—This boat possesses all the qualities of a ship of war's whale boat. Length 27 ft., breadth 5 ft. 6 in., depth 2 ft. 3 in.; diagonally built of two thicknesses, with a layer of painted calico between, and constructed to row five oars single banked. The advantages consisting in the extra buoyancy obtained by the detached air-tight cases placed on the floors, in the head and stern sheets, under the thwarts at the sides, central cases amidships and athwart ships under the thwarts, to prevent any rush of water to the sides or fore and aft, and the raised air cases in the extremes, thereby rendering the boat capable of rising under the weight of water that may break into her, and thus enable the four 6-inch self-acting valves to act, and free the boat to the level of the load water-line; thus, with the arrangement of the portable cases in the extremes, and the increased sheer given to the gunwales, the boat would self-right if upset in a seaway, and rendered impossible of foundering if met by a succession of seas breaking into her. Rig: one dipping lug. With this

boat there are the following fittings, viz.: one mast and rigging complete, one yard, five oars 17 ft. long and two sweep oars, wood yoke and tiller, one anchor, two boat hooks, five galvanised iron crutches on tholes for rowing and two for steering, three barricoes, one bailer, two awning stanchions, one awning, one ensign and staff, one pendant and staff, ten boat fenders, one canvas cover, seven life-belts, one life-buoy, one canvas drogue, ten cork floats, one hand grapnel and line, one loaded cane and line, one boat's compass, furnished with lamp, oil-can, matches, &c.

7. NAVAL MUNITIONS OF WAR.

SEE SECRETARY OF STATE FOR WAR.

(APPENDIX, p. 289.)

8. LIST OF BRITISH FLAGS.

	No.
Ensigns, Red	2
„ White	2
„ Blue	2
Union Jacks	2
Boat's Ensign	2
Ship's Signal Flags	2 sets.
Boat's „	2 sets.
Pendants, Red	2
„ White	2
„ Blue	2

9. LIST OF CHARTS AND BOOKS

FOR THE PARIS EXHIBITION OF 1867, SENT FROM THE HYDROGRAPHIC DEPARTMENT, ADMIRALTY.

MANUSCRIPT CHARTS.

England	River Thames.
	{ Islands of Tiree and Coll.
Scotland	{ Loch Tarbert.
	{ Loch Sunart.
South America	Gulf of Paria.
Australia	{ Coast of New South Wales, (2 sheets)
	{ Vancouver Island.

PUBLISHED CHARTS.

	{ The Downs.
	{ The Thames.
England	{ Yarmouth and Lowestoft Roads.
South Pacific	Middleton Reef.
Mediterranean	Coast of Syria.
South Africa	Cape of Good Hope.
Victoria, Australia	Port Phillip.
	{ Ice Chart of Southern Hemisphere.

BOOKS.

Thirty-five volumes of Sailing Directions and Nautical Tables, published by Admiralty. One Atlas of published Charts.

GLOBE.

One Globe showing lines of Magnetic Variation.

OSWALD & CO., *Sunderland, England.*

Exhibitors of Models of Iron Steam and Sailing Vessels, built and building by them.

Exposants de Modèles de Navires en Fer, à Vapeur et à Voile, construits et en cours de construction par eux.

Aussteller von Modellen eiserner Dampf- und Segelschiffe, welche von ihnen gebaut oder im Bau begriffen sind.

Espositori di Modelli di Navi in Ferro a Vapore e a Velo costrutti ed in costruzione da loro.

OSWALD & Co.'s

Steam-Ship Repairing and Boiler Yard,
North Dock, Sunderland.

OSWALD & Co.'s

Iron Ship-Building Establishment,
Pallion High Yard, Sunderland.

Ships repaired and docked (if required) in the River Wear Commissioners' graving docks, which are of easy access from our North Dock Yard.

CHANTIERS D'OSWALD ET CIE.,
À Réparer les Navires et Chaudières,
North Dock, Sunderland.

Parc de Construction de Navires en Fer
D'OSWALD ET CIE.,
Pallion High Yard, Sunderland.

Navires radoubés et mis en bassin (si le cas l'exige) dans les bassins de radoub des Commissaires de la rivière Wear, dont l'accès est facile depuis notre Dock Yard du Nord.

OSWALD & Co.'s

Dampfschiff-Verzimmerungswerfte und Kesselschmiede,
North Dock, Sunderland.

OSWALD & Co.'s

Eisen-Schiffbau-Etablissement,
Pallion High Yard, Sunderland.

Schiffe verzimmert und in die Docke gebracht (wenn verlangt) in den Kalfater-Docken der River Wear Commissäre, welche sehr leicht zugänglich von unserm North Dock Yard sind.

OSWALD E CIA.,

Cantiere per Riattare Piroscafi e Caldaie,
North Dock, Sunderland.

OSWALD E CIA.,

Stabilimento di Costruzione di Navi in Ferro,
Pallion High Yard, Sunderland.

Si ricevono le navi nel dock e (se occorre) si riattano nei bacini di carenaggio della Commissione del fiume Wear, facilmente accessibili dal nostro Cantiere North Dock.

RAVENHILL, HODGSON, & CO., *Marine Engineers, Glasshouse-fields, Ratcliff; and Orchard-wharf, Blackwall, London.*

Engine Models—*Modèles de Machines.**Modelle von Maschinen—Modelli di Macchine.*

Model of the Engines of H.M.S. 'Lord Clyde,' of 1,000 nominal horse-power, capable of working up to 6,000 horse-power, having cylinders 116 in. diameter, and fitted with surface condensers.

Model of the Engines of the Holyhead Mail Packets 'Leinster' and 'Connaught,' of 720 nominal horse-power, having oscillating cylinders, 98 in. in diameter.

Modèle des Machines du vaisseau de la Marine Militaire de Sa Majesté le 'Lord Clyde,' de 1,000 chevaux de puissance nominale, capables de fonctionner jusqu'à une puissance de 6,000 chevaux, ayant des cylindres de 116 pouces—2 m. 95 c.—de diamètre, et munies de condensateurs de surface.

Modèle des Machines des Paquebots-Poste d'Holyhead, le 'Leinster' et le 'Connaught' de 720 chevaux de puissance nominale, avec cylindres oscillants de 98 pouces—2 m. 49 c.—de diamètre.

Modell der Maschinen Ihrer Majestät Schiff 'Lord Clyde,' 1,000 nominale Pferdekraft, fähig bis 6,000 Pferdekraft, mit Cylindern, 116 Zoll Durchmesser, und Oberfläche-Compressions-Maschinen.

Modelle der Maschinen der Holyhead-Postdampfschiffe 'Leinster' und 'Connaught,' von 720 nominaler Pferdekraft, mit oscillirenden Cylindern, 98 Zoll Durchmesser.

Modello delle Macchine del Real Piroscapo 'Lord Clyde,' della forza nominale di 1,000 cavalli, capaci di agire con una forza di fino a 6,000 cavalli, avendo cilindri di 116 pollici di diametro, ed essendo fornite di condensatori in superficie.

Modelli delle Macchine dei Piroscafi Postali di Holyhead 'Leinster' e 'Connaught,' della forza nominale di 720 cavalli, aventi cilindri oscillanti di 98 pollici di diametro.

ROYAL NATIONAL LIFE-BOAT INSTITUTION OF ENGLAND,
For the Preservation of Life from Shipwreck. (Incorporated by Royal Charter.)

Founded in 1824.—Supported by Voluntary Contributions.

Patroness—Her Most Gracious Majesty the Queen. *President*—The Right Honourable the Earl Percy, P.C. *Chairman*—Thomas Baring, Esq., M.P., F.R.S., V.P. *Deputy-Chairman*—Thomas Chapman, Esq., F.R.S., V.P. *Secretary*—Richard Lewis, Esq., of the Inner Temple, Barrister-at-Law. *Life-boat Inspector*—Capt. J. R. Ward, R.N. *Assistant Life-boat Inspector*, Capt. D. Robertson, R.N.

The object of this institution, as declared in its title, is to afford assistance to every wrecked person around the coasts of the United Kingdom.

The chief means by which the society hopes to carry this object into effect are:—

To build, station, and maintain in repair life-boats of the most perfect description; to furnish them with all necessary appurtenances, including houses to preserve them in, and carriages for their conveyance to the spots where their services are called for; and further, to provide, through the instrumentality of local committees, for their proper manage-

ment, and the occasional exercise of their crews.

To confer honorary rewards in the form of medals and votes of thanks, and also to grant pecuniary remuneration to all persons who at the risk of their own lives, save, or attempt to save, those of others on board vessels wrecked, or in distress, upon any part of the coasts of the United Kingdom.

As an index of the necessity for the provision of such a machinery as the above, it may be stated, that the average loss of lives from shipwreck annually on the shores of the United Kingdom is 600.

General Summary of the Services of the Life-boats of the Institution during 1866:—

		£	s.	d.
Number of lives rescued by life-boats, in addition to 17 vessels saved by them	—	426	—	—
Number of lives saved by shore-boats, &c.	—	495	—	—
Amount of pecuniary rewards for saving life during the year	—	2,173	2	3
Honorary rewards:—Silver medals	16	—	—	—
Votes of thanks on vellum and parchment	25	—	—	—
Total	41	921	2,173	2 3

During the year 1866 the Royal National Life-boat Institution also expended 31,430*l.* in addition on its various life-boat establishments on the coasts of England, Scotland, and Ireland.

The number of lives saved, either by the life-boats of the society or by special exertions, for which it has granted rewards since its formation, is 15,893, for which services 82 gold medals, 767 silver medals, and 23,410*l.* in cash have been given in rewards. The institution has also expended 162,163*l.* on its one hundred and seventy-two life-boat establishments.

The following are Extracts from the General Rules of Management:—

‘Each life-boat to have a coxswain superintendent, with a fixed annual salary of 8*l.*, and an assistant coxswain with a yearly salary of 2*l.*

‘The life-boat to be regularly taken afloat for exercise once every quarter, fully manned and equipped, so that the crew may be familiar with her qualities and proper management. On every occasion of exercise, the men are to be paid 5*s.* each in stormy weather and 3*s.* each in fine weather; and on every occasion of going off to a wreck to save life, each man of

the crew to receive 10*s.* by day, and 1*l.* by night. These payments to be doubled on occasions either of extraordinary risk or of long exposure.

‘The life-boat to be kept on her carriage, in the boat-house, with all her gear in her ready for use. Signals are agreed upon for calling the life-boat’s crew together; and immediately on intimation of a wreck, or vessel in distress the coxswain is to muster his crew, who are to put on their life-belts, launch his boat, and proceed to her assistance.

‘The local committee to make quarterly inspection, and report to the institution as to the behaviour of the boat during exercise, pointing out any defect that may be remedied, and offering any suggestion that may conduce to the efficiency of the service.’

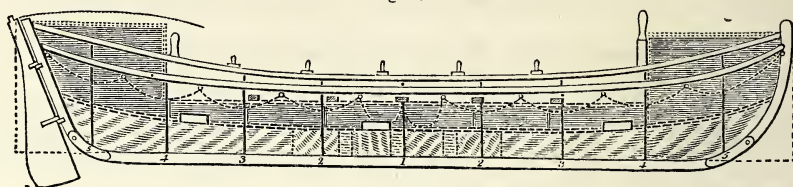
The expense of a life-boat station is 620*l.* Its cost is made up as follows:—

Life-boat and her equipment, including life-belts for the crew, and transporting carriage for the life-boat	£420
Boat-house (average cost)	200
Total	£620

The average annual expense of maintaining a life-boat station is 50*l.*

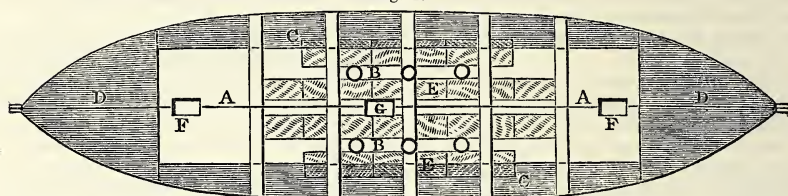
THE LIFE NATIONAL LIFE-BOAT INSTITUTION.

Fig. 1.



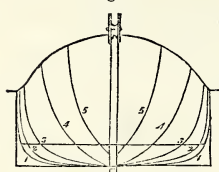
Sheer Plan.

Fig. 2.



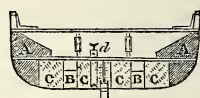
Deck Plan.

Fig. 3.



Body Plan.

Fig. 4.



Midship Section.

The accompanying figures show the general form, the nature of the fittings, and air-chambers of one of these boats, 33 feet in length and 8 feet in breadth. In figs. 1 and 2, the elevation and deck plans, the general exterior form of the boat is shown with the sheer of gunwale, length of keel, and rake of stem and stern-posts. The dotted lines of fig. 1 show the position and dimensions of the air-chambers within board, the relieving-tubes, and ballast. In fig. 2, A represents the deck, B the relieving-tubes (six inches in diameter), C the side air-cases, D the end air-chambers, E ballast, F scuttles to admit of a free current of air under the water-tight deck, G scuttle for air and to receive pump. In fig. 3, the exterior form of transverse sections, at different distances from stem to stern, is shown. Fig. 4 represents a midship transverse section, A being sections of the side air-cases, B the relieving-tubes, of the same depth as the space between the deck and the boat's floor. C, C, C, C, are spaces beneath the deck, placed longitudinally, at the midship part of the boat, with cases packed with cork, forming a portion of the ballast; d, scuttle for ventilation, having a

pump fixed in it, by which any leakage beneath the deck can be pumped out by one of the crew whilst afloat. The festooned lines in fig. 1 represent exterior life-lines attached round the entire length of the boat, to which persons in the water may cling till they can be got into the boat; the two central lines are festooned lower than the others, to be used as stirrups, so that a person in the water, by stepping on them, may climb into the boat without assistance.

This life-boat possesses in the highest degree all the qualities which it is desirable that a life-boat should possess:—

1. Great lateral stability or resistance to upsetting.
2. Speed against a heavy sea.
3. Facility for launching and taking the shore.
4. Immediate self-discharge of any water breaking into her.
5. The important advantage of self-righting if upset.
6. Strength.
7. Stowage-room for a large number of passengers.

The house of the National Life-boat Institution is at 14, John Street, Adelphi, London, where every information can be obtained of the Secretary, Richard Lewis, Esq., respecting its life-boats, working plans for the construction of similar life-boats in foreign countries, instructions for the restoration of the apparently dead from drowning, and on the means in actual use on the coasts of the British Isles for saving life from shipwreck.—*London, March, 1867.*

TRINITY HOUSE CORPORATION, TOWER-HILL, LONDON.

Electric and other Lighthouse Apparatus; Fog Signals; Models of Vessels, Buoys, Beacons, &c.

The Honorable Corporation of Trinity House, which, in conjunction with the Commissioners of Northern Light-houses and the Port of Dublin Corporation—as the general light-house authorities of Great Britain and Ireland—exhibits lighting apparatus and models of light-houses, buoys and beacons, &c., dates its origin back to some period antecedent to the 16th century. In the reign of Henry VIII., King of England and Ireland, it received its first complete organisation as the corporate representation of the shipmen or mariners of England (A.D. 1514). And by an act passed in the eighth year of the reign of Queen Elizabeth it was constituted the authority for buoyage and beaconage. It was designed by its original charter (Henry VIII.) to be a support and nursery to the Royal Navy, being expressly entrusted with arrangements for the increase and maintenance of ships and sailors for Royal Service, together with the entire charge of the Deptford Yard, then first established.

This part of the functions of the Trinity House has ceased, but it retains the important public duties of lighting and buoying the coasts of England and Wales, which have now grown into a great branch of the public service.

The Corporation also regulates, with a few special exceptions, the entire pilotage service of those coasts; is responsible for the qualification of masters in the Royal Navy to take pilotage charge of Her Majesty's ships in British waters; and for the due administration of justice in nautical cases by furnishing Assessors to the Judge in the High Court of Admiralty.

Under the grant of Elizabeth it was also charged with the supply of ballast to ships in the River Thames; and it disburses large sums annually from its private resources to necessitous persons connected with the mercantile marine of the country.

The Corporation consists of an indefinite number of members, of whom thirty-one are styled Elder, and the remainder Younger, Brethren. The Master, who is generally a member of the Royal Family, or a statesman of high rank, has associated with him ten noblemen or gentlemen who have (as a rule) been eminent in the great public departments of the state; the conduct of its active duties rests with twenty of the Elder Brethren, under the presidency of the Deputy-Master, and their numbers complete the thirty-one Elder

Brethren. The twenty acting Brethren are officers of the mercantile marine, and of Her Majesty's Navy, the latter being a small proportion of the whole number, and consisting, at this time, of two Admirals and one Captain of the Royal Service. The present Master is H.R.H. the Duke of Edinburgh, K.G., K.T., &c., and a Captain in the Royal Navy; his Deputy is Captain Frederick Arrow.

The Scotch and Irish Light-houses are under the management of distinct Light-house Boards, with whom the Trinity House co-operates.

The public general light-houses of Scotland are under the Management of the '*Commissioners of Northern Light-houses*,' incorporated as such in 1786. The Commissioners, twenty-eight in number, are the Lord-Advocate and the Solicitor-General for Scotland, the Provosts and senior magistrates of Edinburgh and Glasgow, the Provosts of Aberdeen, Inverness, Campbeltown, Greenock and Dundee, and the Sheriffs of the maritime counties. In all matters relating to the construction of Light-houses and Light-house apparatus, and in all engineering questions, they are advised by Messrs. D. and T. Stevenson, Civil Engineers, of Edinburgh.

In 1810 the management of the light-houses of Ireland was vested in '*The Corporation for preserving and improving the Port of Dublin*,' which is composed of the seventeen members, approved by the Lord-Lieutenant of Ireland, and of the Lord Mayor, High Sheriff, and three Aldermen of the city of Dublin. Under a recent Act of Parliament, this Board is now styled *the Port of Dublin Corporation*.

The Trinity House has, at present, on the coasts of England and Wales, 79 light-houses, 38 light-vessels, and about 500 buoys and beacons; and employs about 850 persons in their management. There are also in Scotland 58 light-houses, 112 buoys, and 42 beacons; and in Ireland, 72 light-houses, 5 light-vessels, and 77 buoys and 63 beacons.

Of the objects exhibited by the Trinity House two may be particularized; one the Magneto-Electric Light, the other the Rock Light-house, as exemplified in the construction of 'The Bishop.'

THE MAGNETO-ELECTRIC LIGHT.

The Light on Dungeness (a point of land on the southern coast of Kent), is one of the most prominent marks for the guidance of

mariners in the Eastern part of the English Channel. Since the sixteenth century, a sea-light has been exhibited from that site, and for many years preceding 1862, a fixed bright light was maintained therein by means of eighteen Argand lamps, with paraboloidal reflectors. The importance of the position, and the comparative facilities of access to it by land and by sea, led to its being selected by the Trinity House for the first permanent exhibition of the magneto-electric light.

This being the first application of electricity to light-house illumination, and the commencement of a new chapter in the science of Pharology, it will be expected that some account should be given of the manner in which this wonderful power of nature has been manipulated, step by step, until the glorious illumination now exhibited from Dungeness tower has been brought to perfection,

Propositions had been made by several persons, at different times, for adopting electric illumination in light-houses; but in all there had existed one special grave cause of objection, namely, that the electricity was to be generated by galvanic or by voltaic batteries. The difficulty and expense of maintaining the necessary supplies for producing the light, and the offensive gases which were evolved in the chemical process, were serious practical objections; and even if these could have been overcome, the light produced was so varied and unsteady as to render it quite inapplicable to light-house illumination.

It had been discovered by Faraday, in 1831, that when a piece of soft iron, surrounded by an insulated metallic wire, was passed by the poles of a magnet, an electric current was produced in the wire, which could be exalted so as to give a spark. But it was not until 1854, that this discovery was turned to practical account, although magneto-electricity was used by chemists in various ways. Six magneto-electric machines (which had been constructed in London) were at that time being used in Paris for experiments in the decomposition of water, with the object of producing gas. The experiments proving unsuccessful, Professor Holmes of London was consulted, and undertook to improve the machines. While so doing, he discovered that not only a spark, but a continuous flame, could be produced and maintained by magneto-electricity. This was done while the machines were at the Hotel des Invalides in December 1854.

Communicating his discovery to Lord and Lady Howard de Walden, on whose behalf he was acting, they at once authorised him to construct, at their expense, a machine calculated to produce the electric light. This he completed at a factory in the Rue Fontaine St. George, in Paris, in the early part of 1855. Another machine was constructed in the same year, at Brussels, according to Professor Holmes' designs, and the experiments were considered so satisfactory that the view was

entertained of applying the principle to light-house illumination.

In February, 1857, Professor Holmes applied to the Corporation of Trinity House for permission to exhibit before them his patent invention for maintaining a very superior and intense electric light, which he described as 'reduced to so simple a process—no acids being required, nor any complicated machinery—that it might be adapted with safety and economy to light-houses on our coasts.' The required permission having been granted, the light was exhibited from the Trinity House Experimental Lantern at Blackwall, and was very favourably reported upon by Professor Faraday and a Committee of the Elder Brethren.

So successful was this exhibition that the Trinity House at once acceded to the inventor's proposition for a practical trial in a light-house: advised by Professor Faraday, and conferring with Professor Holmes, they made careful provision against any possible casualty, and arranged for a probationary exhibition, for two months, from the South Foreland. From that station, on December 8, 1857, the electric light was first exhibited as a guide to mariners.

A further probation of six months was then agreed upon, during which the apparatus was entirely under the control and management of the Trinity House itself, in order that the Elder Brethren might assure themselves of the practicability of maintaining the light. The apparatus was then removed from the South Foreland to Dungeness, and, provision having been made for restoring the old oil light in case of accident, the electric light was there permanently established, and its exhibition commenced on June 6, 1862. It may be added, that the long practical trial which it has since undergone, justifies its being adopted in other light-house stations, which is now about to be done.

Except in the arrangement of the driving gear, the magneto-electric apparatus employed at South Foreland, and afterwards installed at Dungeness, was similar in construction to that now exhibited. The machines consist each of six brass wheels, every wheel having sixteen helices, or bobbins, of insulated copper wire at equal distances around its circumference. Inside of each helix is placed a hollow core of soft iron. The six wheels are all firmly fixed on a shaft, which is driven by the steam-engine; and in turning, every core of each wheel is brought between two opposite poles of two magnets *at the same instant*; on continuing the rotation of the wheels, each core leaves, or quits, each pair of poles *at the same instant*. That these two essential conditions may be fulfilled, the horseshoe magnets are placed in rings of eight in each ring, with their sixteen poles in the same plane pointing inwards, towards the axle, and so adjusted that the distance from centre to centre of the poles is exactly equal to the distance from centre to

centre of the cores of the helices, sixteen in each wheel. The magnets are so arranged that, whether counting the poles around one ring, or counting longitudinally through the seven rings, the poles are alternately north and south poles.

Thus the iron core of any helix has its magnetism reversed sixteen times during one single revolution of the wheels. It is this reversing of the magnetism in the iron cores which induces a current of electricity in the helices; so that each helix and magnet is a small machine in itself, as each produces a current of electricity; and the whole machine is merely a combination of these separate currents, so as to produce a current of sufficient intensity to pass between the separated carbon-points of the lamp, and at the same time in sufficient quantity to produce a powerful light.

To accomplish these two ends in view, the helices of each separate wheel are connected one with the other throughout, and the two terminals of each of the six wheels are connected with two conductors leading to two insulated rings fixed on the shaft of the machine. Hence the compound current is carried off by brushes, made of brass or copper wires, in connection with the wires leading to the lantern.

In each machine there are ninety-six helices and fifty-six magnets.

In the magneto-electric machines the intensity of the current depends on the length of wire throughout the connected series of helices. The quantity of electricity depends on the quantity of magnetism induced in the soft iron cores, and on the velocity with which this quantity is taken up at each reversal of the poles. But it is found that the soft iron requires a certain time to become saturated, and if less time than this is allowed, it will not take up its full quantity. This it is that limits the speed of the machine. It has been found by experience that, with cores of the same weight as those in the machines now exhibited, 6,400 changes in the polarity per minute give the best result.

That the quantity of magnetism taken up by the soft iron cores may be as great as possible, the essential points are, that the magnets should be powerful, and that the cores of the helices should pass, in rotating, as near to the poles as possible without touching. In these machines the distance between the ends of the cores and the faces of the poles of the magnets is less than a millimetre. To preserve this distance great care is taken in adjusting and firmly fixing the magnets; for at the high speed of the machines—400 revolutions per minute—a stoppage of the light might occur, should a magnet be displaced. The same may be said of the helices. To prevent such an accident the helices are all doubly bolted throughout each series, from end to end of the machine; and the helices are retained firmly in their places by the cores being fixed in two flanges which are bolted on to the periphery of

each wheel, and through which the ends of the cores pass, and are flush with the external surface.

Thus it is evident that no wood or similar substance can with safety be employed to retain either magnets or helices in their places; for a change of humidity would disarrange all, and endanger the destruction of the machine. The expense, therefore, of mounting them entirely in brass, although it may at first appear excessive, is justified by the certainty secured for the light, and by the avoidance of expenses for repair. There have been no repairs required either by the magneto-machines or by the lamps since their first establishment in Dungeness.

The electricity, by means of the wires, arrives in the lantern. For fixed lights, two small lenses would be used, as at Dungeness, one fixed vertically over the other. Two regulators, or lamps, are employed for each lens, and these regulators are arranged on two travelling platforms, in such a manner that a mere touch is sufficient to withdraw one regulator and to slide another into its place.

The construction of the lamp, though simple, would be difficult to describe, without drawings, in the limited space of a catalogue. And since Professor Holmes is himself at hand in the Exhibition Building, and ready to explain the action of the apparatus to enquirers, a detailed description is the less necessary.

The beautiful machines now exhibited are intended for a light-house on the English coast, where they will be a lasting monument of the discoveries of Faraday and Holmes, the enterprise of the promoters, and the honour of England, the nation which has given this great benefit to the world.

ROCK LIGHT HOUSES.

The Bishop Rock Light House stands upon a rock about 30 miles from the main land of the coast of Cornwall, and five from St. Agnes, the westernmost island of the Scilly group. The rock, which is only 192 feet in extreme length, by 60 feet at its greatest breadth, is covered at high water, with the exception of one of its three pinnacles, (which from their fancied resemblance to a mitre have given it the name of 'Bishop,') and is exposed to the full force of the Atlantic wave. The tide rises here to a height of 16 feet, and as it was necessary to commence the lowest portion of the foundations at one foot below low-water spring-tides, it will be seen that the engineering difficulties to be encountered in the erection of a light-tower here were of no mean order. Indeed, one tower erected upon this site, on cast iron-piles, was washed away when on the eve of completion during a storm in the winter of 1847.

The designs for the present structure were by the late James Walker, Esq., then engineer to the Corporation of Trinity House, and the work was carried out under his directions by

Mr. Nicholas Douglass, their superintending engineer, who from his experience in the service in difficult and hazardous works, was selected as peculiarly fitted for carrying out such an undertaking.

The surface uncovered at low water being only 828 square yards, the whole of the masonry was prepared and fitted at St. Mary's Island, six miles distant, and fixed at the rock at such times as tide and weather would permit. A steam-tug, a cutter, and three stone barges were employed in this service.

The first stone (one of the 5th course) was laid on July 14, 1852, and the lowest stone is one foot below low water. The first complete course is one foot below high water. Built of Cornish granite from the Carnsew quarries near Penryn, the tower is solid up to twenty-three feet above high water, at which point the internal well-staircase commences. Twenty-three feet higher is the floor of the first room. The whole of the stonework was completed on August 28, 1857.

With constant vigilance, perseverance and courage, Mr. Douglass through the long period of seven years, worked patiently on to the completion of his task. It was only during the summer months, from March to October, that a landing could be made and held on the rock, and even then it often happened that an hour's work would be the most that could be done

after waiting many weeks for an opportunity. The sudden and dangerous rising of the sea on that coast rendered great precaution necessary to preserve the lives of the workmen, and it is not the least striking and satisfactory item in the success of this undertaking, that the whole was completed from first to last without loss of life or limb to any of the men engaged in its construction.

Since the erection of the 'Bishop' another stone light-tower of similar construction has been built, under circumstances of equal difficulty, upon the 'Smalls' rock off the coast of Wales, under the superintendence of Mr. James N. Douglass, now engineer to the Corporation. At the present time a light-house, of which a working model is exhibited, is in course of construction on the Wolf Rock, under the superintendence of Mr. William Douglass. Indeed to Mr. Nicholas Douglass and his two sons, James and William, may be attributed the practical success of some of the greatest triumphs of modern marine engineering.

The light, which is 110 feet above high water, was first exhibited on September 1, 1858, and it may be cited as an instance of the strength of the seas encountered there, that during a gale on January 30, 1860, the Bell on the Lantern Gallery, 100 feet above high water, was broken from its frame by a tremendous wave which passed completely over the Light House.

RENNIE, J. & G., 6 Holland-street, Blackfriars-road, London; Thames-street and Roan-street, Greenwich.

Marine Engineers and Shipbuilders.

High-pressure engine for steam launch, with surface condenser, exhibited among the Admiralty engines, Class 66. This description of engine is the first launch engine to which a surface condenser has been applied, on account of the rapid deterioration of the boilers of steam launches in the British Navy, and after several months' use, the boiler of launch No. 10, attached to H.M.S. 'Hector,' is now as clean and in as good order as when first made use of. Similar launch engines have been supplied to the British, Spanish, and Brazilian Navies, and also to one of the River Plate Governments, and of the launch engines ordered at the same time for the British Navy that with the surface condenser made by MESSRS. J. & G. RENNIE produced the greatest speed, viz.:—8·054 knots, on trial at Stokes Bay.

The following works have lately been carried out by this firm:

Two iron-cased armour-clad double or twin-screw vessels for the River Plate. Models exhibited in Class 66.

Two floating docks for the Spanish Government at Cartagena and Ferrol. Model exhibited in Class 66.

Dredging machines for India, Mauritius, Aden, Australia, and Russia.

Marine steam-engines with surface condensation and superheating apparatus for the Peninsular and Oriental Company, the Euphrates, India, and Egypt.

Steam jib cranes for Keyham and Woolwich Dockyards.

Double or twin-screw high-pressure gun-boats for the Spanish, East Indian, and Russian Governments. Models exhibited in Class 66.

Caissons for docks, for the English, Austrian and Spanish Governments.

Land engines with double cylinders, Woolf's system, and pumping engines for the Royal Mint, Australia, and London Docks, and Woolwich Arsenal. Engraving exhibited in Class 66.

Wrought-iron gun-carriages for service at Callao, Peru.

Centrifugal pump for Keyham Dockyard, 11 ft. 6 in. diameter.

Saddleback barges for the new fortifications at Bombay, India.

MESSRS. J. & G. RENNIE, with their recent improvements in the Euphrates steamer 'Dijleh,' have succeeded in diminishing the consumption of fuel to 2·4 lbs. per indicated horse power.

CLASS LXVI. a.

HER MAJESTY'S SECRETARY OF STATE FOR WAR,
WAR DEPARTMENT, LONDON.

HEAVY ORDNANCE, FIELD GUNS, SMALL ARMS, CAMP EQUIPAGE, ETC.

1 12-INCH WROUGHT-IRON MUZZLE-LOADING-
WOOLWICH RIFLED GUN, fitted with ele-
vating arc, tangent, and trunnion sights, also
top, fore and hind sights. Built up with cast-
steel tube, forged breech piece, trunnion
rings, and 8 coils of fibrous wrought-iron.

Weight 470 cwt. = 23,865 kils.
Breech preponderance . . . nil.

Length over all . 171"·5 = 4^m·356

„ of bore . 145"·0 = 3^m·683

Number of grooves 9

Width of „ 1"·500 = 38·10 mill.

Depth of „ 0"·200 = 5·08 „

Spiral increasing from 1 turn in 1200" =
30^m·48 or 100 calibres, to 1 turn in 600"
= 15^m·24 or 50 calibres.

Charge 70 lbs. = 31·75 kils.

Projectile . . . 600 „ = 272·1 „

V 1,240 feet = 378 metres

Mounted on a wrought-iron Casemate Carriage
and Platform, fitted with Armstrong's self-act-
ing compressor (9 plates, 118" long.)

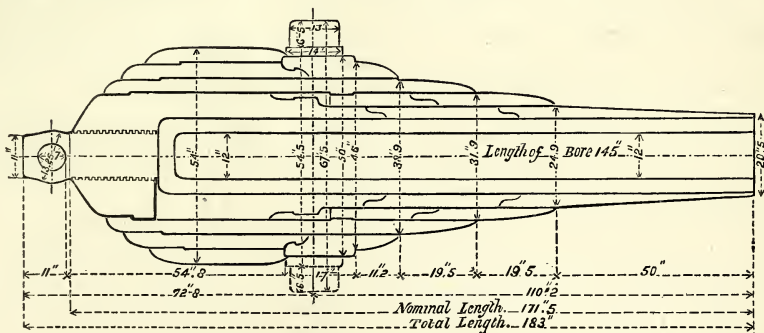
CARRIAGE, Weight 51 cwt. = 2590 kils.
The sides of the platform of fish-belly form,
19"·5 (= 495·3 mill.) deep in centre, and
10"·0 (= 254·0 mill.) at the ends.

Length 180" = 4^m·572

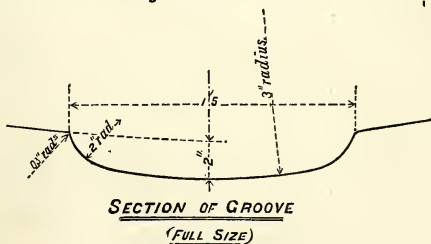
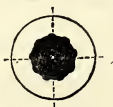
Weight 75 cwt. = 3808 kils.

Slope, 5°. Height to centre of gun 5 feet.

Equipped for land service.



SCALE $\frac{1}{4}$ INCH TO 1 FOOT.



SECTION OF GROOVE
(FULL SIZE)

2 9-INCH WROUGHT-IRON MUZZLE-LOADING-WOOLWICH RIFLED GUN, fitted with elevating arc, tangent, and trunnion sights, also top fore and hind sights. Built up with cast-steel tube, forged breech piece, trunnion ring, and 8 coils of fibrous wrought-iron.

Weight	241·2 cwt.	=	12,247 kils.
Breech preponderance	nil.		
Calibre	9"·000	=	228·6 mill.
Length over all	147"·0	=	3 ^m ·734
„ of bore	125"·0	=	3 ^m ·175
Number of grooves	6		
Width of „	1"·500	=	38·10 mill.
Depth of „	0"·180	=	4·57 „

Spiral, increasing from 0, to 1 turn in 405" (= 10^m·287) or 45 calibres.

Charges {	Battering	43 lbs.	=	19·5 kils.
	Service .	30 „	=	13·6 „
Projectile	250 „	=	113·4 „	
V = {	. . . . .	1,370 feet	=	417 ^m ·6
	. . . . .	1,230 „	=	374 ^m ·9

Mounted on a wrought-iron Naval Carriage and Slide, fitted with Armstrong's self-acting compressor, and Scott's running in and out gear.

CARRIAGE, Weight	37 cwt.	=	1879 kils.
Maximum {	Elevation	14°	
	Depression	8°	

SLIDE, Weight	58·2 cwt.	=	2955 kils.
„ Length	168" „	=	4 ^m ·267
„ Width (inside) 34"·5 „		=	0 ^m ·876

Slope, 1°·5 (slope of deck 3°.)

Equipped complete for naval service.

3 7-INCH WROUGHT-IRON MUZZLE-LOADING WOOLWICH RIFLED GUN, fitted with elevating arc, tangent and trunnion sights, also top fore and hind sights. Built up with cast-steel tube, forged breech piece, trunnion ring, and 7 coils of fibrous wrought-iron.

Weight	129·5 cwt.	=	6576 kils.
Breech preponderance 5·0 „		=	254 „
Calibre	7"·000	=	177·8 mill.
Length over all	125"·2	=	3 ^m ·180
„ of bore	111·0	=	2 ^m ·819
Number of grooves	3		
Width of „	1"·500	=	38·10 mill.
Depth of „	0"·180	=	4·57 „

Spiral, uniform, 1 turn in 245" (= 6^m·223) or 35 calibres.

Charges {	Battering	22 lbs.	=	10·0 kils.
	Service .	14 „	=	6·3 „
Projectile	115 „	=	52·2 „	
V = {	22 lbs.	1,440 feet	=	438 ^m ·9
	14 „	1,240 feet	=	378 ^m ·0

Mounted on a wrought-iron Naval Carriage and Slide, fitted with Armstrong's self-acting compressor.

CARRIAGE, Weight	27·7 cwt.	=	1,407 kils.
Maximum {	Elevation	18°	
	Depression	9°	

SLIDE, Weight	37·2 cwt.	=	1,889 kils.
„ Length	144" „	=	3 ^m ·657
„ Width (inside) 34"·5 „		=	0 ^m ·876

Slope, 1°·5.

Equipped complete for naval service.

4 7-INCH WROUGHT-IRON BREECH-LOADING POLYGROOVED RIFLED GUN, fitted with tangent and trunnion sights. Built up with coiled iron barrel, forged breech piece, trunnion ring, and 6 coils of fibrous wrought-iron. Breech closed by a vent-piece supported by a breech-screw.

Weight	81·1 cwt.	=	4,118 kils.
Breech preponderance 6·9 „		=	350 „
Calibre	7"·000	=	177·8 mill.
Length over all	120"·0	=	3 ^m ·048
„ of bore	99"·5	=	2 ^m ·527

Number of grooves . 76

Spiral, uniform, 1 turn in 259" (= 6^m·578) or 37 calibres.

Charge	11 lbs.	=	5·0 kils.
Projectile	90 „	=	40·8 „
V	1,150 feet	=	350 ^m ·5

Mounted on a wooden Casemate Sliding Carriage, and wooden Traversing Platform, to fire over a genouillère of 2' 7".

Carriage (Teak), } weight	40 cwt.	=	2,031 kils.
Platform (Teak)	27 „	=	1,371 „

Slope, 5°.

Equipped complete for land service.

5 64-POUNDER, WROUGHT-IRON MUZZLE-LOADING SHUNT RIFLED GUN, fitted with tangent and trunnion sights, also top fore and hind sights. Built up with coiled iron tube, of which the muzzle part is a double coil, supported by 1 triple coil at the breech.

Weight	61·4 cwt.	=	3119 kils.
Breech preponderance . 3 „		=	152·3 „
Calibre	6"·3	=	160 mill.
Length over all	111"·0	=	2 ^m ·819
„ of bore	98"·0	=	2 ^m ·489
Number of grooves	3		

Loading grooves	Width 0''·60 =	15·2 mill.
	Depth 0''·11 =	2·8 „
Shallow grooves	Width 0''·40 =	10·1 „
	Depth 0''·08 =	2·0 „

The incline to shallow grooves commences 24''·5 (622·3 mill.) from muzzle, and reaches upper level in 14'' (355·6 mill.). The last 10''·5 (266·7 mill.) are parallel.

Spiral, uniform, 1 turn in 252'' (=6''·401) or 40 calibres.

Charge . . .	8 lbs. =	3·6 kils.
Projectile . . .	64 „ =	29·0 „
V = . . .	1170 feet =	356''·6

Mounted on a wooden Ship Carriage for main deck—

Weight . . .	8·5 cwt. =	431·6 kils.
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Equipped complete for naval service.

6 10-INCH CAST IRON MORTAR.

Weight, 18 cwt. . .	=	914·1 kils.
Weight of carriage 18·5 cwt. . .	=	939·5 „
„ limber. 8·5 „ . .	=	431·6 „

Mounted on siege travelling carriage, with limber cart containing 10 shells.

Mortar carriage and limber packed

37·2 cwt. . .	=	1889 kils.
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Total weight . 55·2 „ . .	=	2803 „
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The carriage forms a mortar-bed, and before firing, the wheels are taken off, and the bed placed upon a horizontal platform.

7 64-POUNDER WROUGHT-IRON (WEDGE) BREECH-LOADING POLYGROOVED RIFLED GUN, fitted with tangent and trunnion sights. (Manufactured at Elswick, by Sir W. Armstrong & Co.). Built up with coiled iron tube, forged breech piece, trunnion ring, and 5 coils of fibrous wrought-iron. The breech closed by a steel stopper, supported by a wrought-iron wedge.

Weight . . .	61·2 cwt. =	3108 kils.
Breech preponderance 5·4 „ . .	=	274 „
Calibre . . .	6''·4 =	162·6 mill.
Length over all . . .	110''·0 =	2''·794
„ of bore . . .	92''·0 =	2''·337
Number of grooves . . .	70.	

Spiral uniform, 1 turn in 256'' (6''·502)

Charge . . .	8 lbs. =	3·6 kils.
Projectiles . . .	64 „ =	29·0 „
V = . . .	1170 ft. =	356''·6

Mounted on Siege Travelling Carriage—

Weight . . .	29·2 cwt. =	1483 kils.
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8 40-POUNDER WROUGHT-IRON BREECH-LOADING POLYGROOVED RIFLED GUN, fitted with tangent and trunnion sights. Built up with wrought-iron coiled barrel, forged breech piece, trunnion ring, and 3 coils of fibrous wrought iron. The breech closed after loading by a vent piece supported by a breech-screw.

Weight . . .	35·2 cwt. =	1787 kils.
Breech preponderance 4·7 „ . .	=	239 „
Calibre . . .	4''·75 =	120·6 mill.
Length over all . . .	121''·0 =	3''·073
„ of bore . . .	106''·4 =	2''·702
Number of grooves . . .	56.	

Spiral, uniform, 1 turn in 173''·4 (=4''·404) or 36·5 calibres.

Charge . . .	5 lbs. =	2·26 kils.
Projectile . . .	40 „ =	18·14 „
V = . . .	1200 feet =	365''·8

Mounted on Travelling Siege Carriage—

Weight . . .	30 cwt. =	1523 kils.
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9 12-POUNDER WROUGHT-IRON BREECH-LOADING POLYGROOVED RIFLED GUN, fitted with tangent and trunnion sights. Built up with coiled barrel, forged breech piece, trunnion ring, and 3 coils of fibrous wrought-iron. Breech closed by a vent piece supported by a breech-screw.

Weight . . .	8·47 cwt. =	430 kils.
Breech preponderance 1·7 „ . .	=	86 „
Calibre . . .	3''·000 =	76·2 mill.
Length over all . . .	72''·0 =	1''·829
„ of bore . . .	61''·4 =	1''·559
Number of grooves 38		

Spiral, uniform, 1 turn in 114'' (=2''·896) or 38 calibres.

Charge . . .	1·5 lbs. =	0·68 kils.
Projectile . . .	12 „ =	5·44 „
V = . . .	1,180 feet =	359''·6

Mounted on a wooden Field-Travelling Carriage, fitted with traversing arrangement, and Limber carrying 30 rounds of ammunition.

Carriage, weight . 15·2 cwt. . .	=	771·81 kils.
Limber, packed . 13·5 „ . .	=	685·49 „

Total weight, Gun, Carriage, and Limber packed, 37·17 cwt. = 1,887 kils.

Equipped complete for field service.

10 9-POUNDER WROUGHT-IRON BREECH-LOADING POLYGROOVED RIFLED GUN, fitted with tangent and trunnion sights. Built up with coiled barrel, forged breech piece, trunnion ring, and 3 coils of fibrous wrought-iron.

Breech closed by a vent piece supported by a breech-screw.

Weight . . .	6.18 cwt.	=	313.8 kils.
Breech preponderance . . .	0.74 „	=	37.6 „
Calibre . . .	3"·000	=	76.2 mill.
Length over all . . .	62"·5	=	1 ^m ·587
„ of bore . . .	52.5	=	1 ^m ·333

Number of grooves 38

Spiral, uniform, 1 turn in 114" (= 2^m·896), or 38 calibres.

Charge . . . 11½ lbs. . . = 0.51 kils.

Projectile . . . 9 „ . . = 4.08 „

V = . . . 1,040 feet = 316^m·9

Mounted on travelling carriage, with limber carrying 24 rounds of ammunition.

Carriage, weight . 11.5 cwt. = 584.0 kils.

Limber, packed . 13.7 „ . = 695.6 „

Equipped for naval service.

11 FORGE WAGON, with limber for field service.

Weight, packed . 32 cwt. = 1625 kils.

12 TRIPLE COIL OF FIBROUS WROUGHT-IRON (unwelded) employed in the breech of a 25-ton gun on the "Fraser" system.

Manufactured in the Royal Gun Factories.

Length of coil . . 96" = 2^m·438

Outside diameter . . 56" = 1^m·422

Inside diameter . . 28" = 0^m·711

Length of exterior bar . 240' = 73^m·150

„ intermediate „ . 202' = 61^m·568

„ interior „ . 165' = 50^m·291

Total weight . . 18 tons = 18,280 kils

13 COIL AND TRUNNIONS, forged hollow, for the breech of a 25-ton gun on the "Fraser" system. Manufactured in the Royal Gun Factories.

Weight, finished . 15 tons = 15,233 kils.

14 CASE, CONTAINING ROYAL LABORATORY STORES, VIZ. :—

SHOT, solid, Round, various natures

— „ Cylindrical „

— Case „

SHELLS, for muzzle-loading rifled guns, complete and in section, common, 9", 8", 7", 64-pdr. and 7-pdr.

— Shrapnel do. do.

— Palliser 9", 8", and 7"

— Common, double, 7"

SHELLS for breech-loading rifled guns, common 7", 64-pdr., 40-pdr., 20-pdr., 12-pdr.

— Ditto ditto ditto, segment

SHELLS for breech-loading rifled guns, segment, unloaded

— Shrapnel, 7" and 64-pdr.

— Spherical, naval and common

— „ Boxer's diaphragm shrapnel

— „ mortar 13-inch

— „ Martin's liquid

ROCKETS, Hale, whole and in section

— Boxer's life-saving apparatus; signal.

MANBY SHOT.

CARCASS, 13-inch

„ SMOKE BALL, 13-inch.

SIGNAL LIGHTS, long and short

PARACHUTE LIGHT BALL, Boxer, 10-inch

FUSES, *Time*, whole and in section, 7½ and 20 seconds Naval: Armstrong's E. with Freeth suspension; Boxer's wood, 9 sec. and 20 sec. for muzzle-loading rifled guns; 5 sec. and 10 sec. for 7-pdr. mountain gun; R. O., for breech-loading rifled guns; 2-inch common; 1-inch shrapnel; mortar, long and short; Manby shot; hand grenade; fuze implementations.

— Percussion, complete, in parts and in section; Petmann's land service; general service; Armstrong's field service, with Freeth modification

— Electric, Abel

CARTRIDGES, filled with coal dust, for smooth-bored and rifled guns, muzzle-loading and breech-loading

AMMUNITION FOR SMALL ARMS, ball and blank, Enfield musket 1853; Artillery carbine; Snider converted Enfield, Boxer; Westley Richards' carbine, &c.

CAPS, percussion, complete, and showing manufacture

BARRELS FOR POWDER, whole and half

CASES FOR CARTRIDGES, rectangular, corrugated and pentagon

CYLINDERS, zinc

LUBRICATORS, various

PORTFIRES, common; coast guard; life-saving

CROMO-LITHOGRAPHS

COFFIN'S CARTRIDGE FILLING APPARATUS.

15 ROYAL SMALL ARMS FACTORY CASE, containing specimens of:—

Enfield rifle, pattern '53, muzzle loader

Whitworth rifle, pattern '62, „

Whitworth short rifle, pattern '63, „

Snider Enfield rifle, breech loader

Snider Short Enfield „

Snider Naval Enfield „

Snider Lancaster Enfield „

Artillery carbine, pattern '61, muzzle loader

Cavalry carbine, pattern '61, muzzle loader
 Snider artillery carbine breech loader
 Snider cavalry carbine "
 Westley Richards' carbine "
 Cavalry rifle pistol, 8-inch
 10-inch pistol fitted with moveable butt.
 Colt's revolver pistol
 Deane & Adams' revolver pistol

Light cavalry sword
 Artillery staff sergeant's sword

Engineer " "

Rifle regts. " "

Highland regts. " "

Infantry " "

Drummer's, rifle regts. " "

" Highland regts. " "

" Infantry " "

Pioneers " "

Naval cutlass

Service spear lances

Exercise lances

Cuirasses' front and back foils.

Exercise foils.

Examples of manufacture, shewing—

The various stages in the manufacture of the stock.

The various operations in the manufacture of the barrel.

The component parts of the Snider breach-loading action, in their several stages of manufacture, with the dies, mills and tools employed for each operation.

The component parts of the bayonet, lock and furniture in various steps of manufacture.

Specimens of nipple wrench, muzzle stopper and snap cap.

16 QUARTER-MASTER JONES' (R.E.) IRON BANDS, for gabions, bridges, &c.

Specimen of gabion made ready for filling with earth

Specimen of band, connected, for bridging purposes

Model of moveable protection (Sap-Roller) for sappers engaged in constructing advanced works

Photographs of construction of bridges

17 ARMOURER'S FIELD FORGE, with tools complete

18 ARMOURER'S FIELD TOOL CHEST

19 ARMOURER'S FIELD MATERIAL CHEST

20 SECTION OF TARGET, representing *Warrior* construction, full size

21 SECTION OF TARGET, representing *Lord Warden* construction, full size

22 SECTION OF TARGET, representing *Minotaur* construction, full size

23 SECTION OF TARGET, representing *Hercules* construction, full size

24 SECTION OF TARGET, representing *Bellerophon* construction, full size

25 SPECIMENS of the military clothing of each of the Services in the British army

26 AMBULANCE WAGON on steel springs, with moveable sides and ends, fitted to hold 8 persons (6 sitting, and two on stretchers).
 Weight . . 14·7 cwt. = 746·4 kils.

27 MEDICAL CART on steel springs, with moveable sides, fitted with boxes.
 Weight . . 20 cwt. = 1016 kils.

28 STRETCHER, for field service and surgical operations.

29 CASE, containing specimens of wrought iron. Royal gun factories

30 WROUGHT-IRON SHIELD for land defence, rolled by John Brown & Co., Sheffield, July, 1864. This is a portion of a plate which weighed 20 tons, and was 21 inches (533 mill.) thick before rolling. Material, best Yorkshire and Derbyshire cold blast iron, with a mixture of foreign pig iron. Thickness, 13"·5 (343 mill.). This plate was fired at from a distance of 200 yards with steel shot of 7", 8" and 9" calibre, weighing respectively 115 lbs., 150 lbs. and 220 lbs., but with charges reduced to represent distances of 600 and 1000 yards.

31 WROUGHT-IRON PLATE, rolled by the Millwall Iron Works Co., September, 1863, for H.M.S. *Bellerophon*, and selected for experiment on a target representing that vessel.

Length . . . 20' 9" = 6^m·32
 Width . . . 4' 3" = 1^m·30
 Thickness . . . 6"·0 = 152·4 mill.
 Weight . . . 188 cwt. = 9546 kils.

It exhibits the effects of 18 projectiles, varying in weight and power, from a Whitworth 70 pdr. to a spherical 10"·5 steel shot of 169 lbs (76·6 kils.). The actual penetrations are all produced by 7" shot of about 115 lbs. (52 kils.) of steel, or iron cast in chill (Palliser shot).

32 HARNESS AND SADDLERY

HARNESS, Drivers, Royal Artillery

SADDLETREE, universal, troopers

,, officers

,, harness, drivers

,, ,, luggage

SADDLE, officers

,, universal, troopers

33 SPECIMENS OF IRON, cut by M. Perrin's endless band saw, in Royal Carriage Department, Woolwich

COLONEL CLERK'S (R.A.) telemeter for military purposes

MODELS of 68-pounders and 9-pounders s.b. guns by Mr. J. Allen, Royal Carriage Department

MODELS of 24-pounder and 18-pounder guns of 18th century

LITHOGRAPHS OF CARRIAGES, SLIDES, &c.

PHOTO-LITHOGRAPHS of same on reduced scale

34 KIT OF CAVALRY, private soldier

,, INFANTRY ,, ,,

35 SPECIMENS OF HORSE SHOES, artillery and cavalry**36 TOOLS:—**

Carpenters', shoemakers', farriers', shoeing-smiths', bricklayers' and masons', saddle-tree makers', coopers', tailors', wheelers', collar-

makers', pioneers', miners', tinmen's, camp equipage and picketing.

37 FIRE ENGINE, HAND, Captain Fowke's pattern, made by Shand and Mason**38 FORGE AND PACK-SADDLE****39 MEDICAL AND SURGICAL INSTRUMENTS.** BOXES CONTAINING MEDICINES, BANDAGES, SPLINTS, &c., required for service in the field**40 PHOTOGRAPHS AND DRAWINGS** of artillery subjects.**41 ARMS AND ACCOUTREMENTS OF THE VARIOUS BRANCHES OF THE SERVICE**, disposed round the walls**BARRACK HUT—****1** Hospital Ward with ordinary furniture and conveniences. Lavatory, water-closet and bath-rooms attached.**2** In this room are combined articles used in soldiers' 'Recreation Room,' 'Cook House,' and 'Canteen.'**3** Married soldiers' quarter**4** Soldiers' barrack-room with storeroom lavatory and water-closet attached

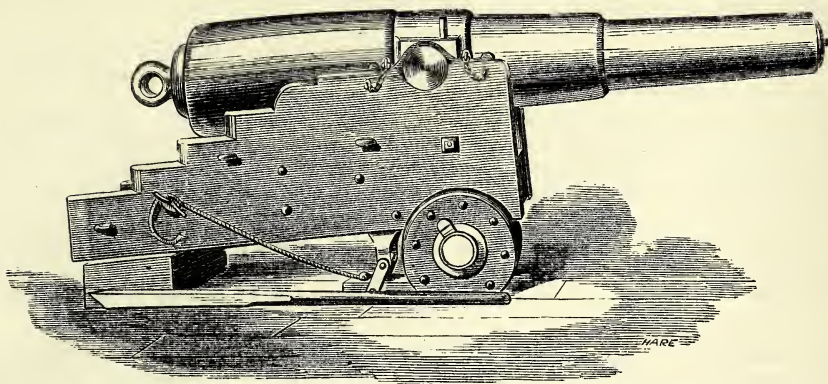
Articles used in Equitation Drill and in Gymnasia are also shown in this room.

5 Two-stalled stable

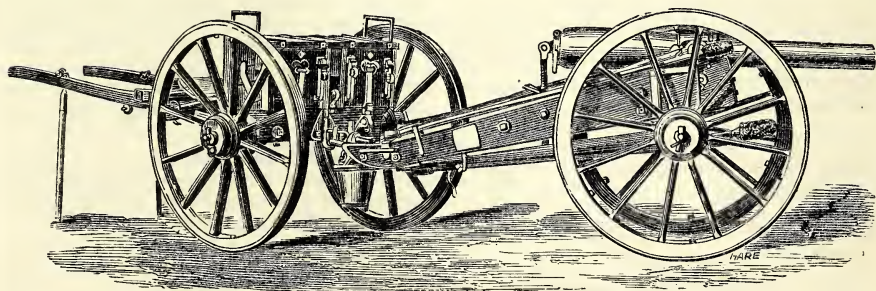
THE WHITWORTH COMPANY (LIMITED).—*Works, 44 Chorlton-street, Manchester;
London Office, 28 Pall Mall, s.w.*

Manufacturers of the 'Whitworth' Patent Rifled Steel Ordnance and Ammunition, for
Naval, Siege, or Field Guns.

Also of 'Whitworth' Rifled Small Arms.



70-pounder Rifled Gun on Broadside Carriage.



12-pounder Field Gun, with Carriage and Limber.

Patent 'Whitworth' Steel, for Guns or Steel Projectiles, and 'Whitworth' Case Shot.
Sole Makers of Boxer's Patent Shrapnel Shell and Time Fuzes.

ARMSTRONG, SIR W. G., & CO., *Elswick Works, Newcastle-on-Tyne, England.*

(A). A wrought-iron 12½-ton 9-inch muzzle-loading rifled gun, constructed throughout on the coil system, and mounted on a wrought iron carriage and slide.

The gun is rifled according to the "Woolwich" method used for similar guns, in H.B.M.'s service.

The projectiles weigh 250lb., and the full charge of British service powder weighs 43lb.

The gun and carriage have been proved at sea, and according to the British service rule of proof.

The carriage and slide weigh together 4½ tons. The compressor for checking recoil is wholly of iron, and is thrown in and out of action by a lever handle, placed on one side of the carriage, which acts of itself if neglected, and serves also to control the motion of the gun when running in or out in a seaway. The degree of compression is adjusted by a regulating lever handle, placed on the opposite side of the carriage.

The general construction of the gun, carriage, and slide, as originated by Sir W. Armstrong and Co., is now adopted for H.B.M.'s land and sea service.

The wooden framework represents the section of an iron-clad frigate, and exhibits the mode of fixing and working the gun in a broadside port.

(B). A 3-in. muzzle loading rifled field gun, weighing 9 cwt., constructed with a steel barrel reinforced by superimposed coils of wrought iron, and mounted on a carriage with a limber attached, both wholly of wrought iron.

The gun is rifled upon the 'shunt' method, used for the 4-ton 6·3-inch m. l. guns of H.B.M.'s service.

The projectiles weigh 12 lb. and the service charge 1½ lb.

Gun carriage, limber, ammunition, and equipments complete, weigh in all 37½ cwt.

The wheels may be taken to pieces, and the various parts replaced by screwing.

(C). Specimens and sections of various projectiles and fuzes, with other ordnance accessories.

(A). Un canon rayé se chargeant par la bouche, en fer forgé, pesant 12½ tonnes—12,688 kilogr.—et du calibre de 9 pouces—0 m. 23 c.—construit en entier d'après le système à rubans, et monté sur affût et coulisse de fer forgé.

Ce canon est rayé d'après la méthode en usage à l'Arsenal de Woolwich pour les pièces semblables du service de Sa Majesté Britannique.

Le poids des projectiles est de 250 livres—123 kilogr. 500—et celui de la pleine charge de poudre du service anglais de 43 livres—19 kilogr. 522.

Ce canon et son affût ont été éprouvés en mer, et selon les conditions d'épreuve du service anglais.

L'affût et la coulisse pèsent ensemble 4½ tonnes—4,568 kilogr. Le comprimeur destiné à amortir le recul est entièrement en fer, et est mis en action ou au repos par un bras de levier placé sur un côté de l'affût, qui agit de lui-même s'il est négligé, et sert aussi à contrôler le mouvement du canon alors qu'il s'avance ou recule dans le roulis. Le degré de compression est ajusté par un bras de levier régulateur, placé sur l'autre côté de l'affût.

Le système de construction générale de ce canon, des affût et coulisse, tel qu'il a été initié par Sir W. ARMSTRONG ET CIE., est maintenant adopté pour le service de la marine et de l'armée de Sa Majesté Britannique.

La charpente en bois représente une section d'une frégate cuirassée, et montre la manière de fixer et manœuvrer le canon dans un sabord de bordée.

(B). Une pièce de campagne rayée se chargeant par la bouche, du calibre de 3 pouces—0 m. 7·554 c.—(pesant 9 cwt.—458 kilogr.) construite avec âme en acier, renforcée par des rubans superposés de fer forgé, et montée sur affût avec fourgon, l'un et l'autre entièrement en fer forgé.

Ce canon est rayé d'après le 'shunt system' en usage pour les pièces de 4 tonnes—4,030 kilogr.—et 6·3 pouces—0 m. 16 c.—de calibre du service de Sa Majesté Britannique.

Les projectiles pèsent 12 livres—5 kilogr. 449—et la charge de service 1½ l. 0 k., 795 gr.

Affût, fourgon, munitions et équipement complet pèsent en tout 37½ cwt.—1,905 kilogr.

Les roues peuvent se démonter en plusieurs pièces et leurs différentes parties se remettre en place au moyen de vis.

(C). Spécimens et sections de divers projectiles et fusées, avec autres accessoires d'artillerie.

ARMSTRONG, SIR W. G., & CO., *Elswick Works, Newcastle-on-Tyne, England.*

(A.) Eine gezogene Kanone von gehämmertem Eisen, 12½ Tonnen Gewicht, 9zöllige Mündung, von vorn zu laden, und durchgehend nach dem 'Coil System' gearbeitet; das Gestell und die Gleitbahn sind gleichfalls von gehämmertem Eisen.

Diese Kanone ist, wie ähnliche in Woolwich behandelt werden, gezogen und genau wie die in der Artillerie Ihrer Britischen Majestät im Gebrauche.

Die Geschosse wiegen 250 Pfund, und die volle Ladung von Britischem Ordonnanz-Pulver wiegt 43 Pfund.

Diese Kanone in ihrer gegenwärtigen Beschaffenheit wurde an Bord eines Schiffes nach den Vorschriften der Britischen Admiralität practischen Versuchen unterworfen.

Das Gestelle und die Gleitbahn zusammen wiegen 4½ Tonnen. Die Vorrichtung zur Verminderung des Zurückprallens ist ganz von Eisen, und wird durch ein besonderes Hebeeisen gehandhabt, welches der Art an der Seite angebracht ist, dass es von selbst die nöthige Wirkung hervorbringt, sollte ein Versehen stattfinden; durch dieselbe Vorrichtung wird auch das Hin- und Herrollen des Geschützes bei hoher See überwacht. Die Stärke des so bewirkten Druckes wird durch ein Hebeeisen bestimmt, welches an der entgegengesetzten Seite des Gestelles angebracht ist.

Die allgemeine Construction dieses Geschützes, und welche von Sir W. ARMSTRONG & Co. ursprünglich erfunden worden ist, wird jetzt in der Armee und Marine Ihrer Britischen Majestät angewendet.

Das hölzerne Gerüst stellt die Durchschnittsseite einer gepanzerten Fregatte und die Art und Weise vor, wie Kanonen an der Breitseite aufgestellt und bedient werden.

(B.) Eine 3zöllige gezogene von der Mündung ladbare Feldkanone, 9 Centner wiegend; der Lauf ist von Stahl, durch Lagen von gehämmertem Eisen verstärkt; das Gestell und der Protzwagen sind ausschliesslich von gehämmertem Eisen.

Dieses Geschütz ist nach der 'Shunt'-Methode gezogen, wie dies mit allen von 4 Tonnen, 6,3 Zoll, an der Mündung ladbaren Geschützen in den Arsenalen Ihrer Britischen Majestät erzeugten Geschützen der Fall ist.

Die Geschosse wiegen 12 Pfund und die vorgeschriebene Ladung 1¼ Pfund.

Gestell, Protzwagen, Munition und Zugehör wiegen in allem 37½ Centner.

Die Räder können zerlegt und die etwa ersetzt werden müssenden Stücke mit Schrauben befestigt werden.

(C.) Muster und Theile von verschiedenen Geschossen, Zündern und anderen Artillerie-Gegenständen.

(A.) Cannone di ferro battuto di 12½ tonnellate, da 9 pollici, caricabile dalla bocca, rigato costruito, interamente sul sistema del tortiglione e montato su affusto e piattaforma in ferro battuto.

Il cannone è rigato secondo il metodo usato a Woolwich per simili cannoni pel servizio Reale.

I proiettili pesano 250 lbe. e la carica regolare colla polvere del servizio Britannico pesa 43 lbe.

Il cannone e l' affusto sono stati provati sul mare, e secondo la regola di prova del servizio Britannico.

L' affusto e piattaforma insieme pesano 4½ tonnellate. Il compressore per impedire il rinculo è interamente di ferro ed è messo in azione o in riposo da un manubrio a leva situato da un lato dell' affusto, che agisce da sè anche se trascurato, e serve anche a regolare il movimento del cannone nello scorrere innanzi e indietro col moto del mare. Il grado di compressione è aggiustato da manubrio a leva regolatore, posto al lato apposto dell' affusto.

La costruzione generale del cannone, affusto e piattaforma come proposta da Sir W. ARMSTRONG & CIA., è adesso adottata pel servizio Reale di terra e di mare.

L' intelaiatura in legno rappresenta la sezione di una fregata corazzata, e dimostra il modo di piantare e manovrare il cannone in una cannoniera di fiancata.

(B.) Cannone da campagna rigato da 3 pollici caricabile dalla bocca, pesante 9 cantara, costruito con una canna d'acciaio rinforzata da tortiglione sovrapposto in ferro battuto, e montato su d' un affusto con avantreno annesso interamente di ferro battuto.

Il cannone è rigato sul metodo detto 'shunt,' come usato pei cannoni da 4 tonnellate 6-3 pollici caricabili dalla bocca, del servizio Reale.

I proiettili pesano 12 lbe. e la carica di servizio 1¼ lba.; affusto, avantreno, munizione, ed equipaggiamento completo pesano in tutto 37½ cantara.

Le ruote possono smontarsi in pezzi, e esser rimesse insieme a vite.

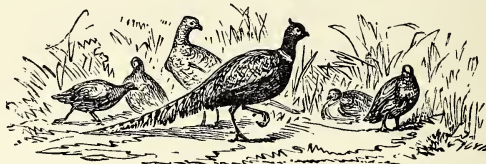
(C.) Campioni e sezioni di vari proiettili e spolette con altri accessori d' artiglieria.

GROUP VII.

CLASS LXVII.

CHAMBERLIN, JAMES, 1 Post-office-street, Norwich, England.

Aromatic Spanish Meal, for Rearing and Feeding Pheasants.
'Spanish Meal' Aromatique, pour Elever et Nourrir les Faisans.



ENGLISH PRICE.

35s. the hundred weight, delivered free at Great Eastern Railway Station, London. Casks included. Cash must accompany order.

The wonderful success attending the use of my Spanish meal for feeding pheasants induces me to say that for years it has been my desire to introduce a food which would not only add strength and development to the newly hatched birds, but prevent all diseases; and I am happy to state, from numerous letters I hold from noblemen and gentlemen, my efforts have been crowned with triumphant success.

It is to be noted that many gamekeepers have their prejudices, and prefer using ants' eggs, maggots and flesh, even in a putrid state. Can this be good? decidedly not! it is the precursor of all diseases to which pheasants are subjected.

Aromatic Spanish meal contains the most nutritious boiled meat, fragrantly spiced, ground down by powerful machinery, and so judiciously blended that the long-sought desideratum of feeding and keeping the stomachs of the birds warm is accomplished, creating a stamina which repels the chills and damps of early summer.

Agent in Paris—MR. D. H. BRANDON,
Civil Engineer, 13 Rue Gaillon.

On receipt of five stamps, Mr. Chamberlin will send, post free, a book with instructions to rear and feed pheasants, partridges, &c., with numerous opinions of the excellent qualities of Spanish Meal.

Zoological Society of London, Regent's Park, N.W.,
September 10, 1866.

Sir,—I have much pleasure in bearing testimony to the *excellent qualities* of your 'Spanish Meal,' which has been used for some time past in feeding the very valuable collection of *Indian, Chinese, and other pheasants* in the gardens of this society, with the most *satisfactory results*.

I remain, sir, yours truly,

A. D. BARTLETT, Superintendent.

PRIX FRANÇAIS.

40 f. les 50 kilog., livrés sans frais à la Station de la Ligne du Nord à Paris. Fût compris. L'argent doit accompagner le commande.

Le succès prodigieux qui résulte de l'emploi de mon 'Spanish meal' pour nourrir les faisans, m'engage à constater que pendant plusieurs années j'ai éprouvé le désir d'introduire une nourriture qui non seulement donnât de la force et du développement aux oiseaux nouvellement éclos, mais qui prévint toute espèce de maladie; et je suis heureux de certifier par les nombreuses lettres que j'ai reçues des plus hauts personnages, que mes efforts ont été couronnés d'un succès complet.

Il est à remarquer que beaucoup de gardes-chasse ont leurs préjugés, et qu'ils préfèrent employer des œufs de fourmis, des mites, et de la viande, même dans un état de putréfaction. Cela peut-il être bon? certainement non; cela ne peut être que l'avant-coureur des maladies auxquelles les faisans sont sujets.

L'aromatique 'Spanish meal' contient de la viande bouillie la plus nutritive, épicée agréablement, moulue par une très puissante machine, et si judicieusement mélangée, que le moyen si longtemps cherché de nourrir les jeunes faisans, et d'entretenir la chaleur dans leurs estomacs, est enfin trouvé. Le 'Spanish meal' crée une force intérieure qui résiste au froid et à l'humidité des premiers jours d'été.

Agent à Paris—M. D. H. BRANDON,
Ingénieur Civil, 13 Rue Gaillon.

En recevant cinquante centimes de timbres-poste, M. Chamberlin enverra franco un livre contenant les instructions nécessaires pour élever et nourrir les faisans, les perdrix, etc., avec les nombreuses attestations des excellentes qualités du 'Spanish Meal.'

Société Zoologique de Londres, Regent's Park, N.W.,
le 10 septembre 1866.

Monsieur,—C'est avec le plus grand plaisir que je constate les *excellentes qualités* de votre 'Spanish Meal,' qui a servi depuis quelque temps à nourrir la très-précieuse collection de *faisans indiens, chinois, et autres*, dans le jardin de la dite société, avec les *résultats les plus satisfaisants*.

Croyez-moi, etc.,

A. D. BARTLETT, Surintendant.

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON.

ILLUSTRATIONS OF THE FOOD DIVISION OF THE SOUTH KENSINGTON MUSEUM.

Substances showing the composition of a healthy human body, weighing 11 stones, or 154 pounds.

Series illustrating the daily supply and waste of a healthy working man, weighing 11 stones, or 154 pounds.

Heat-giving, flesh-forming, and mineral substances, in various kinds of animal and vegetable food.

Substances illustrating the comparative composition of eleven different kinds of vegetable food.

Substances illustrating the comparative composition of twelve different kinds of animal food.

Series of thirteen cases, representing the chemical analysis of the following articles of diet, namely:—Wheat, Bran, and Oats, Beans and Peas, Rice and Lentils, Potatoes and Carrots, Grapes and Gooseberries, Tea and Cocoa, Coffee and Tobacco, Milk, three kinds of Meat, three kinds of Fish, Beers, and Wines.

Series of mounted specimens, illustrating the varieties of Hares and Rabbits, indigenous to Great Britain. In a glazed case.

Series of mounted specimens, illustrating the varieties of Pheasant, which have been introduced into Great Britain. In a glazed case.

Series of mounted specimens of Grouse, Ptarmigan, and Capercailzie, in illustration of the Game Birds of Great Britain. In a glazed case.

Stuffed heads of the following breeds of Oxen:—The Hereford, Short Horn, Long Horn, Polled Angus, Scotch Runt, and Gallo-way.

Models in wax of a Horse's Tongue and a Bullock's Tongue.

Illustrations of diseased meat.

Seven mounted specimens of different species of Crabs and Lobsters, illustrating edible crustacea.

Series illustrative of the development of the common Oyster.

Selected substances used in the adulteration of different kinds of Food.

A cheap and easily prepared Filter, called 'The Poor Man's Filter.'

A series of 34 coloured drawings or diagrams illustrating the Edible and Poisonous Fungi of Great Britain.

Diagram of the Chemical and Physiological Classification of Food.

Diagram of the Dietetic value of various kinds of Vegetable Food.

Table of the Elements and Compounds of the Human Body.

Diagram showing the assumed average composition of entire Carcasses of Butcher's Meat.

Diagram showing the comparative consumption of Tea, Sugar, and Tobacco in certain countries named.

Forty-two printed descriptive Labels in glazed frames.

CLASS LXXII.

CORBETT, JOHN, *British and Imperial Salt Works, near Bromsgrove, Worcestershire, England.*

These works are amongst the most extensive in England. The purity of the brine springs from which this salt is manufactured insures an article beautiful in colour and fine in quality.

Shipping ports for exportation—London, Gloucester, Bristol, Hull, and other ports.

Offices in London—115 Lower Thames-street.

Ces salines se rangent parmi les plus vastes qui existent en Angleterre. La pureté des sources salées d'où provient le sel que manufacture J. Corbett, assure un article de couleur magnifique, et de la plus belle qualité.

Ports d'exportation—Londres, Gloucester, Bristol, Hull et autres.

Bureaux à Londres—115 Lower Thames-street.

Diese Salzwerke gehören zu den ausgedehntesten in England. Die Reinheit der Salzquellen, von welchen dieses Salz gewonnen wird, macht es möglich, einen Artikel zu produciren, welcher schön in Farbe und fein in Qualität ist.

Verladungshäfen für Ausfuhr: London, Gloucester, Bristol, Hull und andere Häfen.

Comptoir in London—115 Lower Thames-street.

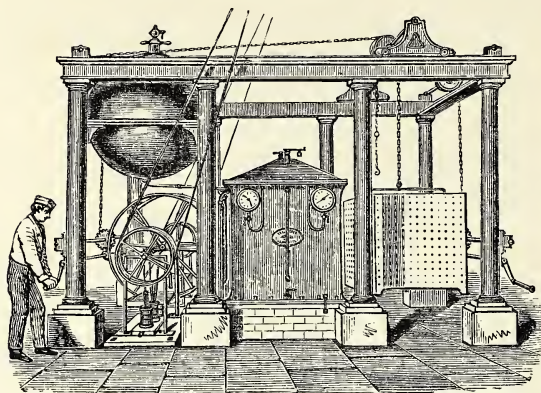
Queste saline sono le più ampie in Inghilterra. La purezza delle sorgenti salse dalle quali si ottiene questo sale ne assicura un prodotto bellissimo per colore e qualità.

Porti di imbarco pell' esportazione—Londra, Gloucester, Bristol, Hull ed altri porti.

Ufficio in Londra—115 Lower Thames-street.

BURGESS, JOHN, & SON, 107 Strand (corner of the Savoy steps) and Savoy-street, Savoy-hill, Fountain-court, London.

Patented and other Preparations of the Gorgona Anchovies, Pickles, Sauces, &c.



stance même par une pression de 45 livres—20 kilogr. 430 gr.—par pouce carré—6,45 c. Ces conserves ont le mérite d'être immensément supérieures aux conserves de ménage, tant sous le rapport de la pureté que sous celui du bon goût.

Beigefügt ist eine Zeichnung von MAMFIELD's patentirtem Einmache-Apparat, kürzlich aufgestellt von Herren JOHN BURGESS &

Subjoined is a drawing of MAMFIELD's patent Pickling Apparatus lately erected by Messrs. JOHN BURGESS & SON, who are the sole licensees; it consists of a large air-tight chamber or receiver, capable of holding 100 gallons of vegetables, and is fitted with two sets of air-pumps for exhausting and condensing the air in the receiver, worked by an engine; a tank for vinegar is attached, as shown in drawing. The whole of the metal parts of the machinery with which the vinegar comes in contact has been made entirely of platinum. Atmospheric pressure is the great feature of this process. After the vegetables have been thoroughly exhausted of air and superfluous moisture the pickling vinegar is forced into the very substance of the vegetable at a pressure of 45 lbs. to the square inch. These pickles possess the merit of being far superior to home-made ones in point of purity and flavour.

SOHN, welche die einzigen Patent-Inhaber sind. Der Apparat besteht aus einer grossen luftdichten Kammer oder Empfänger, welcher 100 Gallonen Gemüse hält und mit zwei durch Dampf getriebene Luftpumpen zum Auspumpen und Verdichten der Luft in dem Empfänger versehen ist; ein Essigbehälter ist beigefügt, wie in der Zeichnung gesehen werden kann. Die metallenen Theile der Maschinerie, mit welchen der Essig in Berührung kommt, sind ganz aus Platina gemacht. Der hauptsächlichste Umstand dieses Verfahrens ist die Anwendung von Luftdruck. Nachdem die Gemüse völlig der Luft und überflüssigen Feuchtigkeit entleert worden sind, ist der Essig zum Einmachen in die Substanz der Gemüse, unter einem Druck von 45 Pfund auf den Quadratzoll, hineingetrieben. Diese Pickles besitzen den Vortheil, dass sie viel besser in Bezug auf Reinheit und Geruch als die in Hauswirthschaften zubereiteten sind.

Ci-jointe est une planche représentant l'appareil à fabriquer les conserves au vinaigre de MAMFIELD, breveté, récemment érigé par MM. JOHN BURGESS ET FILS, seuls cessionnaires du brevet; cet appareil consiste en une large chambre ou récipient imperméable à l'air, pouvant contenir 100 gallons des légumes à conserver—454 litres—et est muni de deux systèmes de pompes à air, mues par une machine à vapeur, qui épuisent et condensent l'air dans le récipient; à cette chambre est attaché, ainsi qu'on peut le voir dans la planche ci-dessus, un réservoir pour le vinaigre. Toutes les parties métalliques de l'appareil avec lesquelles le vinaigre peut se trouver en contact ont été entièrement fabriquées en platine. La pression atmosphérique constitue le caractère principal de ce procédé. Lorsque les légumes ont été complètement épuisés d'air et d'humidité surabondante, le vinaigre, destiné à les conserver est introduit de force dans leur sub-

Qui unito è un disegno dell'apparato patentato MAMFIELD's per preparare frutti in aceto, eretto recentemente dai Signi. JOHN BURGESS & FIGLIO, soli autorizzati dall'inventore. Consiste in un gran recipiente pneumatico della capacità di 100 galloni di frutti, ed è fornito di due sistemi di pompe ad aria per esaurire o condensare l'aria nel recipiente, attivate da un motore; annessa vi è una cisterna pell'aceto, come si vede nel disegno. Tutte le parti metalliche del meccanismo che vengono in contatto coll'aceto sono fatte interamente di platino. La pressione atmosferica è il gran distintivo di questo processo. Dopo che i frutti sono affatto esausti d'aria e di superflua umidità, l'aceto è spinto entro la polpa del frutto ad una pressione di 45 lbs. per pollice quadrato. Questi frutti hanno il merito di essere superiori ai casalinghi e per purezza e per gusto.

FRY, J. S., & SONS, *Bristol and London.*

Manufacturers of Chocolate and Cocoa.

Obtained Prize Medals at the International Exhibitions, London, 1851; New York, 1853; Paris, 1855; London, 1862; and Dublin, 1865. Manufacturers by Special Appointment to the Queen and Prince of Wales.



This manufacturing house has been established upwards of one century, and produces chocolate and cocoa in great variety, including the finest chocolate in tablets, and other forms; and cocoa adapted for general consumption. The business not only includes the preparation of these goods by powerful steam machinery, but also making them up into packages of all descriptions, in which department a large number of hands are employed.

J. S. FRY & SONS have had the honour of supplying the Royal Family for upwards of 100 years, and have received the appointments of Manufacturers to the Queen and Prince of Wales. The prize medals awarded, as stated above, are a gratifying proof of the position assigned by the most competent judges to the manufactures of this firm.

Several descriptions are especially adapted for exportation, and are carefully prepared so as to retain their freshness and delicacy for a long period. In many of the British Colonies these articles are well known and appreciated.

Ont obtenu des Médailles aux Expositions Internationales de Londres, 1851; New-York, 1852; Paris, 1855; Londres, 1862; et Dublin, 1865. Fournisseurs spéciaux de la Reine et du Prince de Galles.

Cette maison est établie depuis plus d'un

siècle, et fabrique une grande variété de chocolats et cacaos, y compris le chocolat le plus fin en forme de tablettes et autres; et aussi le cacao adapté à la consommation générale. En outre de la préparation de ces articles au moyen de puissantes machines à vapeur, la maison J. S. FRY ET FILS en fait aussi l'emballage en paquets et colis de toutes sortes, branche de leurs affaires qui occupe un nombre considérable d'ouvriers.

J. S. FRY ET FILS ont eu l'honneur de fournir la Famille Royale depuis plus de cent ans, et ont été nommés Fournisseurs spéciaux de la Reine et du Prince de Galles. Les médailles qui leur ont été décernées, ainsi qu'on l'a vu plus haut, sont une preuve satisfaisante de la position qui été assignée par les juges les plus compétents aux produits de cette maison.

Plusieurs sortes de ces produits sont fabriquées spécialement en vue de l'exportation et sont soigneusement préparés de façon à conserver longtemps toute leur fraîcheur et leur délicatesse. Ces articles, au reste, sont bien connus et appréciés dans nombre de colonies anglaises.

Erlangten Preis-Medaillen auf den internationalen Ausstellungen zu London, 1851; New York, 1853; Paris, 1855; London, 1862; und Dublin, 1865. Fabricanten (durch spezielle Ernennung) für die Königin und den Prinzen von Wales.

Dieses Fabrikhaus besteht seit über einem Jahrhundert und producirt Chocolate und Cacao in einer grossen Mannigfaltigkeit, worunter die feinte Chocolate in Tafeln und in anderer Form; ebenso den zu allgemeinem Verbrauch bestimmten Cacao. Das Geschäft umfasst nicht nur die Zubereitung dieser Waaren durch kraftvolle Dampfmaschinen, sondern auch die Verpackung derselben in Päckchen aller Arten, in welchem Zweige eine grosse Menge Leute beschäftigt werden.

J. S. FRY & SÖHNE haben die Ehre gehabt, die königliche Familie seit mehr als 100 Jahren zu versorgen, und sind zu Fabricanten für die Königin und den Prinzen von Wales ernannt worden. Die zuerkannten Preismedaillen, wie oben erwähnt, sind ein genügender Beweis für die von den kompetentesten Richtern den Fabricaten dieser Firm zuertheilten Stellung. Verschiedene Arten eignen sich besonders für Ausfuhr und sind sorgfältig zubereitet, so dass sie ihre Frischheit und Feinheit für eine lange Zeit bewahren. In vielen der Britischen Colonien sind diese Artikel wohlbekannt und werden hoch geschätzt.

CLASS LXXIII.

THE BURTON BREWERY COMPANY (LIMITED),

Burton-upon-Trent, England.

East India Pale, also Mild and Strong Ales, Single and Double Stouts.

Ale pâle des Indes Orientales, Ales douces et fortes, Stouts de Première et de Seconde Qualité.

LONDON AGENCY,

4 & 5 Endell-street, Long Acre.

AGENCE CONTINENTALE À PARIS,

50 Rue Basse du Renepart, Boulevard des Capucines.

ALLSOPP, SAMUEL, & SONS, *Brewers, Burton-on-Trent, England.*

Messrs. S. ALLSOPP & SONS beg to call attention to their *East India Pale Ale*, orders for which will be received either at their offices No. 3 *Rue Scribe, Paris*; at the Brewery at *Burton*; or at any of their Stores, as under:—

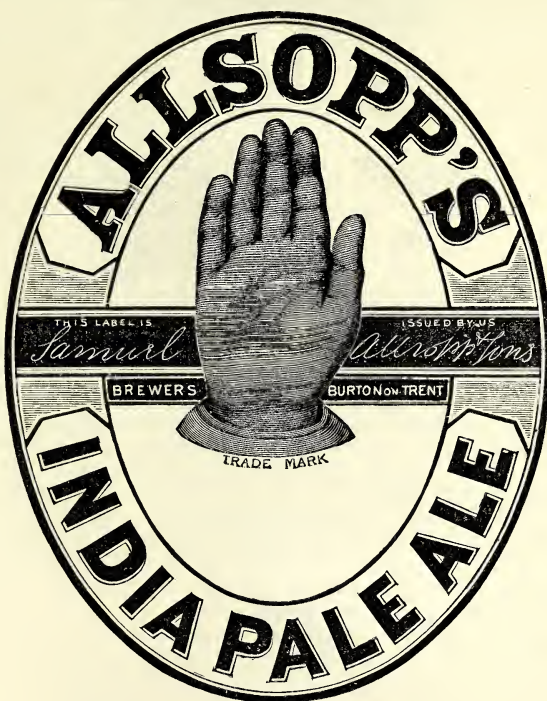
London, 61 King William-street,
City, E.C.
Brighton, 6 Marine-parade
Liverpool, Cock-street
Birkenhead, 26 Hamilton-street
Manchester, 9 St. Ann's-square
Leeds, New Post Office
Birmingham, 35 New-street
Derby, London-road
Ashbourne, Market-place
Leicester, 52 Granby-street
Dudley, Market-place

Chesterfield, Low-pavement
Nottingham, Long row
Newcastle-on-Tyne, Grainger-street
Peterborough, Long-causeway
Wolverhampton, Exchange-street
Worcester, The Cross
Sheffield, Exchange-buildings
Stoke-upon-Trent, Wharf-street
Southampton, 170 High-street
Norwich, London-street
Bath, 5 Edgar-buildings

Cheltenham, 388 High-street
Cardiff, 17 High-street
Swansea, Wind-street
Merthyr, High-street
Bristol, 13 King-street
Hull, 2 Market-place
Exeter, Queen-street
Dublin, 1 Crampton-quay
Cork, 25 Cook-street
Glasgow, 115 St. Vincent-street
Edinburgh, 12 St. Andrew's-square

Arrangements have been made for an extensive supply of these ales in the Refreshment Department of the Exhibition, so that intending purchasers may judge for themselves of their quality and condition.

Lists of prices can be obtained at any of S. ALLSOPP & SONS' Stores, as above.



MM. S. ALLSOPP ET FILS ont l'honneur de recommander à l'attention du public leur fameuse ale pour les Indes Orientales (*East India Pale Ale*), et d'annoncer que toute commande sera reçue soit à leurs bureau à *Paris, rue Scribe*, No. 3, soit à leur Brasserie, à *Burton-on-Trent*, soit enfin à leurs Dépôts ci-dessus mentionnés.

Des arrangements ont été faits pour un large assortiment de bières dans le Buffet de l'Exposition, de manière à ce que les personnes qui désireraient en acheter, puissent juger par elles-mêmes de leur qualité et de leur condition.

La liste des prix peut être obtenue à n'importe quel Dépôt de MM. S. ALLSOPP ET FILS.

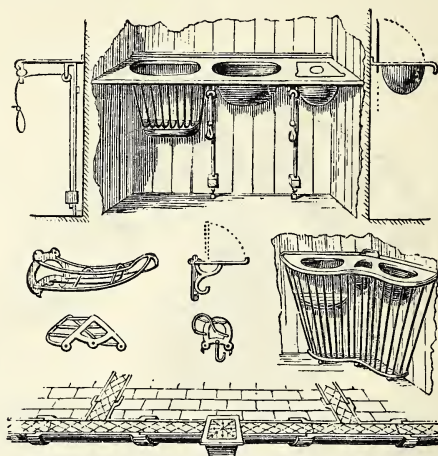
GROUP VIII.

CLASS LXXV.

COTTAM & CO., *Iron Works, 2 Winsley-street (opposite the Pantheon), Oxford-street, London, w.*

Original Inventors of the Improved Stable Fittings and Harness Brackets (now so generally specified by Architects).

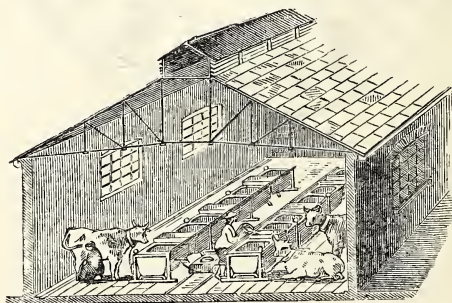
COTTAM & Co. have been awarded the Medals of the Great Exhibition, 1851; Paris, 1855; and the International of 1862, for progressive and general improvements in these Fittings, and for conservatories and carriage entrance gates in iron.



The model of stable exhibited, comprising the iron enamelled fittings, &c., a quarter the full size, for 2 stalls, and a loose box, of part of which the annexed engraving is an illustration. The cost of the fittings complete, full size and fixing, including the mangers, ramps, head stall plates, wood partitions, and lining, iron traps, gutter, and brick paving, averages about 100*l*.

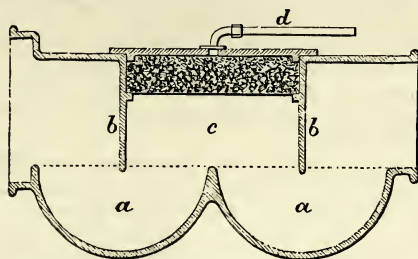
Wrought iron ventilating brackets for hanging saddles, 14*s*. 6*d*., and single, 35*s*., and double, 60*s*., harness per set.

More detailed particulars of the above, and all other kinds of stable fittings in iron and enamel, in the illustrated catalogues, to be obtained gratis of the agent at the stand, and of the inventors, COTTAM & Co., 2 Winsley-street, Oxford-street, London, w.



COTTAM's patent portable united cow fittings, all iron, cheaper than wood not fixtures, removable at pleasure. For particulars, see COTTAM's Catalogue.

COTTAM'S patent effluvium interceptor trap, for preventing noxious gases and bad smells | entering dwelling-houses, hospitals, stables, &c., &c. from drains, sewers, cesspools, &c.

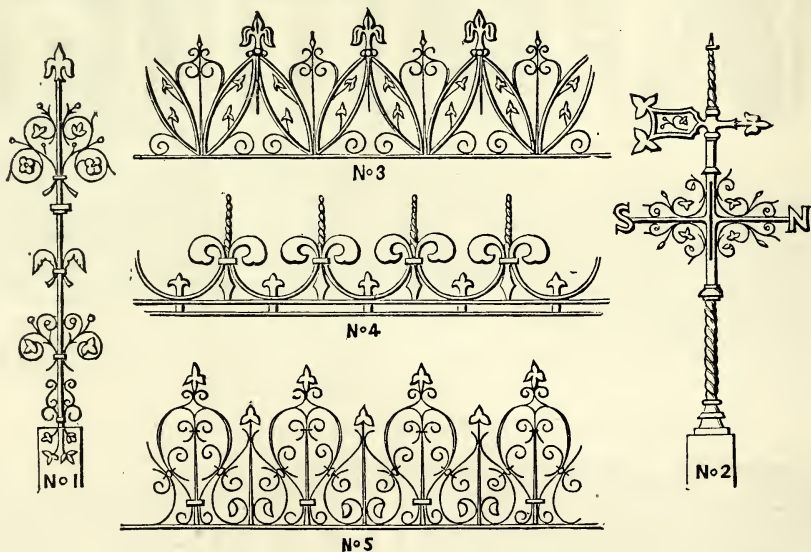


The cut represents a section of the interceptor trap, with the ordinary inlet and outlets for drain pipes. It is fixed close to the outer wall of the building, the receptacle for the water lute, is in two compartments, *a a*, into each of which a diaphragm or plate *b*, dips, and an intercepting chamber, *c*, is thus formed, by means of which the sewer gas, forcing a pas

sage, is caught and carried off, by a pipe *d*, to any convenient place for its escape. The intercepting chamber is provided with a box of charcoal, through which the gases permeate, and are rendered free of deleterious qualities.

For further explanation, see the model and trap exhibited, also pamphlet and testimonial.

	£	s.	d.
A wrought iron ornamental terminal, No. 1	10	0	0
A ditto Vane, No. 2	10	0	0
Cast iron ornamental cresting, about 2 ft. high, per ft., No. 3	0	10	6
Ditto, ditto, per ft., No. 5	0	10	6
Wrought iron ditto ditto, about 9 inches high, per ft., No. 4	0	12	6



See specimens exhibited on gable ends and ridge of testing-house roof.

COTTAM & Co., 2 Winsley-street (opposite the Pantheon), Oxford-street, London, W.
Manufacturers of all kinds of iron work, both plain and ornamental, for buildings and other purposes.

MUSGRAVE BROTHERS, *Ann-street Iron Works, Belfast.*



Prize Medal, International Exhibition, 1862, and of the Royal Agricultural Society of England, &c.

Médaille à l'Exposition Internationale de 1862, celle de la Société Royale d'Agriculture d'Angleterre, etc.

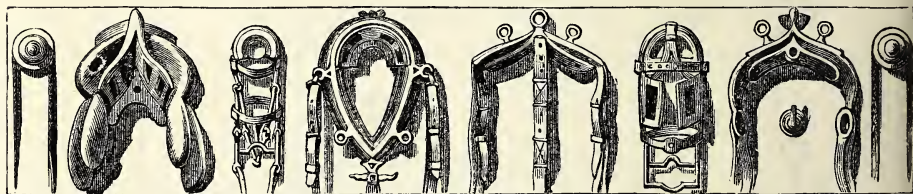
Exhibitors in Paris Exhibition both in Class 24, main building of the Exhibition, and Class 75, English building in Park.



MUSGRAVE'S PATENT STABLE FITTINGS, AND MUSGRAVE'S PATENT HARMLESS LOOSE BOXES.

MUSGRAVE'S patent fittings have been employed by H.R.H. the Prince of Wales for the new stables at Sandringham. Gentlemen are particularly requested to examine these inventions in the Paris Exhibition, as they are unlike those of any other maker, and were admitted to excel all of their class in the Exhibition of 1862. They can be seen in first-class stables in every county in England; and MUSGRAVE BROTHERS are now fitting several very large establishments under directions of London architects noted for employing only what is the best of its kind.

Les appareils intérieurs pour écuries, brevetés, de MUSGRAVE FRÈRES ont été employés par S.A.R. le Prince de Galles pour les écuries récemment construites à Sandringham. Messieurs les visiteurs à l'Exposition Universelle de Paris sont priés de vouloir bien examiner ces inventions, qui diffèrent de celles de tout autre fabricant et qui étaient considérées comme les meilleures de leur classe à l'Exposition Internationale de 1862. Elles peuvent être vues dans toutes les écuries de premier ordre dans chaque comté de l'Angleterre, et les Messieurs MUSGRAVE FRÈRES s'occupent dans ce moment de leur érection dans plusieurs grands établissements, sous la direction de certains architectes de Londres, bien connus pour ne pas employer que les meilleurs matériaux dans leurs constructions.



MUSGRAVE'S PATENT HARNESS BRACKETS (A NEW INVENTION),

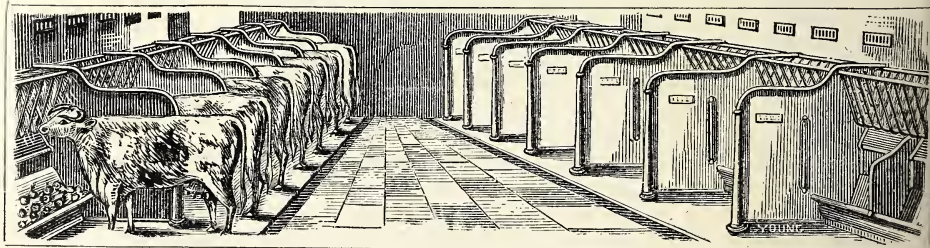
These harness brackets, with polished wood cappings on iron framework, are very strong, yet have a light and handsome appearance; a free admission of air below quickly dries the stuffing. Each bracket is exactly the form of the article intended to rest on it, thus keeping the saddle or harness in proper shape, and preserving the leather from cracking.

Priced engravings sent post free on application to

Ces crochets pour harnais, avec pommes en bois poli sur un châssis en fer, sont d'une construction très-forte, avec néanmoins l'apparence de légèreté et de grâce; l'admission libre de l'air au-dessous du crochet rend la bourre bientôt sèche. Chaque crochet est de la forme exacte de l'article que l'on désire pendre là-dessus, et la selle ou le harnais étant ainsi retenu dans sa propre forme, évite tout dommage au cuir.

Planches, avec prix-courants, envoyées franco sur demande adressée à

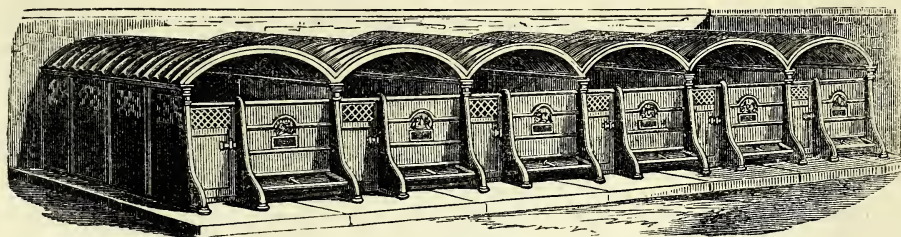
Exhibited in Class 75, Paris Exhibition (the English building in the Park).



MUSGRAVE'S PATENT IRON COW-STALLS, AS USED IN THE GOVERNMENT MODEL FARMS.

These iron cow-stalls are perfect in their arrangements for feeding and ventilation; every part being of iron, they are indestructible, inexpensive, very compact, cleanly, and healthful for the animal. Should sickness occur, if the iron work be painted, and the walls washed with lime, they can neither harbour nor communicate contagion. This system, in fact, is found to be the only true safeguard against the spread of rinderpest or other epidemic.

Ces salles à vaches, en fer, sont d'une disposition parfaite, ne laissant rien à désirer tant à l'égard de la pâture que de la ventilation; étant construites entièrement de fer, elles sont indestructibles, peu coûteuses, très-compactes, propres, et convenables à tous égards pour assurer la santé des animaux. En cas de maladie quelconque, si la ferrure est peinte et les murs de l'écurie blanchies à lait de chaux, elles ne pourront ni loger ni communiquer la contagion. En effet, ce système a été trouvé le seul qui puisse fournir une défense efficace contre la propagation de la peste bovine ou d'aucune autre épidémie.

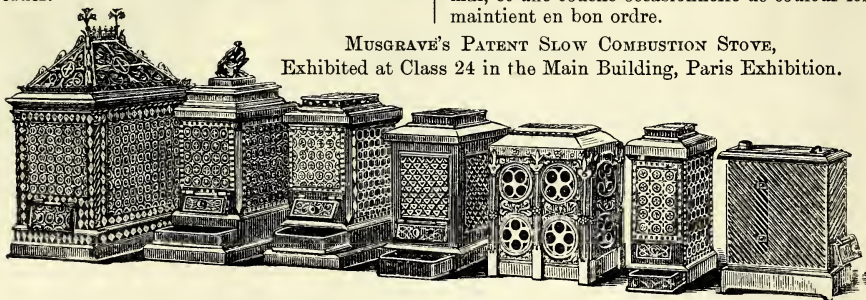


MUSGRAVE'S PATENT IRON PIGGERIES AND DOG KENNELS.

These piggeries are made entirely of iron, and may be moved about if necessary. The system of ventilation keeps the air always sweet. The troughs are easily cleaned, emptied, and refilled without disturbing the animal and an occasional coat of paint keeps them in good order.

Ces étables à porcs sont construits entièrement de fer, et, s'il soit nécessaire, peuvent être changés de place. La méthode adoptée pour leur ventilation rend l'air toujours pur. Les auges sont facilement nettoyées, vidées et remplies, sans incommode en aucune façon l'animal, et une couche occasionnelle de couleur les maintient en bon ordre.

MUSGRAVE'S PATENT SLOW COMBUSTION STOVE,
Exhibited at Class 24 in the Main Building, Paris Exhibition.



This stove is employed by the Ecclesiastical Commissioners, and is the nearest approach to warming by hot water. It will burn in churches from Saturday till Sunday evening, without attention during the hours of worship. In halls, will burn day and night for weeks with little care. Capable of warming a large apartment for 24 hours, at a cost of 3d.; and deserving of special attention, because of its safety, healthfulness, durability, and extreme simplicity.

Priced engravings sent free on application to

Cette poêle est employée par les Commissaires Ecclésiastiques, et son opération se rapproche plus exactement que celle d'aucune autre au chauffage par l'eau chaude. Elle s'adapte bien au chauffage des églises, étant capable d'entretenir un feu du samedi jusqu'au dimanche soir sans qu'on la soigne durant les heures du service divin. Dans les vestibules elle brûlera jour et nuit pendant plusieurs semaines, n'exigeant que bien peu de soin de la part des domestiques. Elle chauffera un appartement assez large durant 24 heures, au coût de 30 c. seul, et étant sûre, saine, durable, et simple dans son opération, elle mérite une attention spéciale.

Planches, avec prix-courants, envoyées franco sur demande adressée à

MUSGRAVE BROTHERS, Ann-street Iron Works, Belfast.

GROUP IX.

CLASS LXXXIII.

BROWN, J. B., & CO., 90 Cannon-street, and 148 Upper Thames-street, London.

New Patent B B Lawn Mowing Machines, Improved Galvanised Wire Netting, Ornamental Wire Fencing.

Nouvelles Machines B B, brevetées, à faucher les Pelouses, Filets en Fil métallique galvanisé, perfectionnés, Clôtures d'Ornement en Fil métallique.

Neue patentirte B B Mähmaschinen für Ziergrasplätze, verbesserte verzinkte Drahtnetze, verzierte Drahtverzäunungen.

J. B. BROWN & Co.'s New Patent Lawn Mower combines all the latest improvements in lawn-mowing machines, being simple in construction, very light, silent in movement, easily worked, and so strong and durable as to be literally unbreakable—an all-important feature in machines of this class; the ordinary cast-iron being entirely done away with, and malleable iron substituted in all breakable parts, and every part being numbered and accurately made to standard gauges. The workmanship and finish are also of a superior character; the entire machine being quite equal to a revolution, so to speak, in lawn-mowers.

Favourite size hand machine, for one man, 14 in., 5*l*. 10*s*.; for two men, 16 in., 6*l*. 10*s*.; 18 in., 7*l*. 10*s*.; 20 in., 8*l*.; 22 in., 8*l*. 10*s*.; 24 in., 9*l*. Favourite pony machine, 30 in., 17*l*. 10*s*.; horse machine, 36 in., 24*l*. 10*s*.

J. B. BROWN & Co.'s improved wire netting, galvanised after made, 1½ in. mesh, for small rabbits, light, 4¼*d*. per lineal yard, 24 in. high; strong, 6¼*d*.; 2-inch mesh for poultry, light, 3¾*d*. per yard; strong, 5¾*d*.

J. B. BROWN & Co.'s improved ornamental and portable Fencing. Detailed priced lists of this and all their other manufactures to be had on application at their stand in the Exhibition, or to their London address.

Les Nouvelles Faucheuses pour Pelouses, brevetées, de J. B. BROWN et C^{ie}., combinent tous les perfectionnements les plus récents apportés dans ces sortes de machines, ces faucheuses étant d'une construction simple, très-légères, fonctionnant sans bruit, étant faciles à faire agir, et tellement solides et durables, qu'elles sont littéralement indestructibles—tous caractères de la dernière importance dans les machines de cette classe; le fer malléable ayant été substitué, dans toutes les parties susceptibles de se briser, à la fonte ordinaire, qui a été totalement supprimée, et chaque pièce étant numérotée et fabriquée, avec soin sur mesures étalon. La main d'œuvre et le fini de ces machines sont également d'un caractère supérieur; en un mot, elles constituent dans leur ensemble une véritable révolution, pour ainsi dire, dans la construction des faucheuses pour pelouses.

Faucheuse à main, pour un homme, dimension favorite, 35·56 c., 187·50 fr.; do. pour deux hommes, 40·64 c., 162·50 fr.; 45·72 c.,

187·50 fr.; 50·80 c., 200 fr.; 55·88 c., 212·50 fr.; 60·96 c., 225 fr. Faucheuse favorite pour poney, 76·20 c., 437·50 fr.; do. pour cheval, 91·44 c., 612·50 fr.

Filets en fil métallique, perfectionnés, de J. B. BROWN et C^{ie}., galvanisés après fabrication, maille de 1·59 ces., pour petits lapins, légers, 0·45 ces. par yard—91·43 ces.—linéaire, 60·96 ces. de hauteur; forts, 66 ces.; à maille de 5·8 ces. pour volaille, légers, 0·40 ces.; forts, 61 ces.

Prix courants et listes détaillées de tous objets de clôture perfectionnés, d'ornement, et portatifs, fabriqués par J. B. BROWN et C^{ie}., sur demande faite à leur Exposition au Champ de Mars, ou à leur adresse à Londres.

J. B. BROWN & Co.'s neuer patentirter Ziergrasplatz-Mäher vereinigt in sich alle die neuesten Verbesserungen in Mähmaschinen für Ziergrasplätze, da er einfach in Bauart, sehr leicht, geräuschlos, wenn in Thätigkeit, sehr leicht zu arbeiten und so stark und dauerhaft ist, dass er wörtlich nicht zu zerbrechen ist, eine sehr wichtige Eigenschaft in Maschinen dieser Klasse; das gewöhnliche Gusseisen ist ganz und gar nicht angewandt und dafür Schmiedeeisen gebraucht in allen zerbrechlichen Theilen, und jeder Theil ist numerirt und genau nach Originalmassen gemacht. Die Arbeit und Vollendung sind ebenso vorzüglich, und die ganze Maschine ist, so zu sagen, einer Umwälzung in Grasplatz-Mähern zu vergleichen.

Handmaschine, von beliebter Grösse, für einen Mann, 14 Zoll, 36¾ Thlr.; für zwei Männer, 16 Zoll, 43½ Thlr.; 18 Zoll, 50 Thlr.; 20 Zoll, 53¾ Thlr.; 22 Zoll, 56¾ Thlr.; 24 Zoll, 60 Thlr. Beliebte Maschine für ein Pony, 30 Zoll, 116¾ Thlr.; Pferde-Maschine, 36 Zoll, 160¾ Thlr.

J. B. BROWN & Co.'s verbesserte Drahtnetze, verzinkt nach der Verfertigung, Masche 1½ Zoll, für kleine Kaninchen, leicht, 3 Sgr. 6 Pf. per Längenyard, 24 Zoll hoch; stark, 5 Sgr. 6 Pf.; Masche 2 Zoll, für Geflügel, leicht, 3 Sgr. 3 Pf. per Yard, stark, 4 Sgr. 9 Pf.

J. B. BROWN & Co.'s verbesserte und tragbare verzierte Drahtverzäunungen. Ausführliche Preis-Courante von diesem und allen andern ihrer Fabricate sind zu haben auf gefällige Anfrage an ihrem Stande in der Ausstellung oder zu ihrer Londoner Adresse.

CLASS LXXXIV.

SUTTON & SONS, *Seedsmen to the Queen, the Emperor of the French, &c. &c., Royal Berkshire Seed Establishment, Reading, England.*

Seed Growers and Merchants.
Producteurs et Marchands de Graines.

Priced catalogues gratis and post free to any part of the world.
Catalogues et prix courants envoyés gratis et franco dans toutes les parties du monde.



Suttons' grass seeds for all soils.
Semences des graminées de Sutton pour tous les sols.

Messrs. SUTTONS' stand,
Group IX. Class 87,
will include—

Collection of vegetable seeds, showing the sorts most generally cultivated in England, and the purity of the seeds supplied by SUTTON & SONS.

Collection of farm seeds, showing the sorts most generally cultivated in England, and the purity of the seeds supplied by SUTTON & SONS.

Collection of flower seeds, consisting of the most showy kinds cultivated in England, and showing the purity of the seeds supplied by SUTTON & SONS.

Specimens of agricultural and ornamental grasses grown by SUTTON & SONS, Reading, Berks, England.

L'Exposition de MM. SUTTON,
Groupe IX. Classe 87,
comprendra :

Une collection de graines potagères, montrant les espèces cultivées le plus généralement en Angleterre, et la pureté de celles fournies par SUTTON ET FILS.

Une collection de semences agricoles montrant les espèces cultivées le plus généralement en Angleterre, et la pureté de celles fournies par SUTTON ET FILS.

Une collection de graines de fleurs, se composant des espèces les plus brillantes cultivées en Angleterre, et montrant la pureté de celles fournies par SUTTON ET FILS.

Enfin des spécimens des graminées agricoles et d'ornement, produites par SUTTON ET FILS, à Reading, Berks, Angleterre.

GROUP X.

CLASS LXXXIX.

SCIENCE AND ART DEPARTMENT, SOUTH KENSINGTON, LONDON.

COLLECTIONS OF THE MOST RECENT YEARLY REPORTS

PUBLISHED BY SOME OF THE CHARITABLE, BENEVOLENT, AND VOLUNTARY SOCIETIES AND INSTITUTIONS OF GREAT BRITAIN AND IRELAND, MADE AT THE REQUEST OF THE IMPERIAL COMMISSION.—(See also Group II. Class VI.)

This collection is as complete as it was possible to make it. It is hoped that it may possess a value, as shewing the means by which, in a country where local self-government is one of the most cherished privileges of the nation, voluntary associations supplement the municipal administration.

It has been thought advisable to classify these reports in two groups—

1. Those furnished by the metropolitan institutions, of which the collection is less incomplete than that of the provincial societies.

The whole estimated income of the various charitable and benevolent societies of London was, for 1865, over £2,400,000.

2. Such reports of provincial institutions as could be obtained in the very limited time and with the resources that could be devoted to their collection.

Besides the reports found in these two Groups, there are two other classes which it does not seem quite convenient to include in either—the reports of the volunteer corps of the United Kingdom; and those of the mechanics' institutes and other literary and scientific associations similarly constituted, and having analogous objects.

The Reports in the first Group are divided into the following classes:—

- 1 Hospitals and infirmaries for medical treatment
- 2 Dispensaries. Under this head are included lying-in charities where the women are attended at their own homes
- 3 Asylums for lunatics and idiots
- 4 Asylums and charitable institutions for the blind, deaf and dumb
- 5 Asylums for the indigent
- 6 Refuges, reformatories, ragged schools, and orphanages for men or boys. Refuges for both sexes are included under this head
- 7 Refuges, reformatories, penitentiaries, and Orphanages for women and girls
- Provident societies

- 9 Religious societies and missions
- 10 Educational charities
- 11 Miscellaneous charities

The second Group is divided into the same classes, with the addition of one for parochial and municipal reports.

The following is a list of the Reports:—

Note (p) signifies that the report will be found in the portfolio.

* Some of these Reports have been sent in MS. but it was thought right not to exclude them.

FIRST GROUP.

1. Hospitals and Infirmaries for Medical Treatment.

Brompton Hospital for Consumption
 Charing Cross Hospital
 Chelsea Home
 City of London Hospital for Diseases of the Throat
 City of London Lying-in Hospital
 " " Orthopædic Hospital
 Central London Orthopædic Hospital
 Dental Hospital
 German Hospital
 Great Northern Hospital
 Guy's Hospital
 Hospital for Sick Children
 " " Diseases of the Throat
 " " Women
 " " Diseases of the Skin
 King's College Hospital
 London Hospital
 " Fever Hospital
 " Infirmary
 " Mesmeric Infirmary
 " Surgical Home
 Metropolitan Free Hospital
 Middlesex Hospital
 National Hospital for the Paralysed and Epileptic
 National Sanatorium for Consumption and Diseases of the Chest
 Ophthalmic Hospital
 Queen Charlotte's Lying-in Hospital
 Royal Free Hospital

Royal Infirmary for Diseases of the Chest
 Royal Infirmary for Children and Women
 Royal London Ophthalmic Hospital
 Royal Orthopædic Hospital
 St. Bartholomew's Hospital
 St. George's Hospital
 St. Luke's Hospital
 St. Mary's Hospital
 St. Mark's Hospital
 St. Peter's Hospital
 Samaritan Free Hospital
 Seaman's Hospital
 West London Hospital
 Westminster Hospital

2. Dispensaries (19).

Dispensaries, Bloomsbury.—Chelsea, Brompton, and Belgrave.—City.—City of London and East London.—Eastern.—Finsbury.—Farringdon General and Lying-in Charity; Rules and Constitution of.—Islington.—Metropolitan.—Paddington Maternity.—Public Dispensary.—Royal General.—Royal Maternity Charity.—Royal South London.—St. George's and St. James's.—St. Mary-le-bone General.—Surrey.—Westminster.—Westminster General.—

3. Asylums for Lunatics and Idiots (4).

Asylum for Idiots
 Bethlem Hospital
 Bridewell and Bethlem
 Hanwell County Lunatic Asylum

4. Asylums and Charitable Societies for the Blind, Deaf and Dumb.

Alexandra Institute for Blind Women and Girls
 Association for Promoting the General Welfare of the Blind
 Association in Aid of the Deaf and Dumb
 Asylum for the Support and Education of Indigent Deaf and Dumb Children
 Hetherington's Blind Charity (p)
 London Society for Teaching the Blind to Read
 School for the Indigent Blind

5. Asylums for the Indigent (18).

Annuitant's Homes
 Benefit Societies' Asylum, Metropolitan
 Benevolent College, Royal Medical
 Benevolent Institution (Aged and Infirm Journeymen Tailors)
 Bookbinders' Pension and Asylum Society
 Convalescent Institution, Metropolitan
 Cripples' Home
 Christian Union Almshouses
 Destitute Sailors' Asylum
 Fishmongers and Poulterers' Institution
 Friendly Female Society

Home for confirmed Invalids
 Hospital, Royal Scottish
 Incurables, British Home for
 Incurables, Royal Hospital for
 Licensed Victuallers' Asylum
 Pawnbrokers' Charitable Institution
 Peabody, Mr., Gift to the Poor of London
 Sailors' Home, The

6. Refuges, Reformatories, Ragged Schools, &c. for Men or Boys (44).

Adult Orphan Institution
 Alexandra Orphanage
 Asylum for Fatherless Children
 Boys' Home, The
 Boys' Refuge, The
 Brockham Home, The
 British Orphan Asylum
 Brook Street Refuge
 Clergy Orphan Corporation
 Commercial Travellers' Schools
 Cripples' Home and Female Refuge
 Dudley Stuart Nightly Refuge for the Houseless Poor
 East London Ragged School Shoeblack Society and Refuge
 Farm School, The Philanthropic Society's
 Field Lane Ragged School
 Foundling Hospital
 Grotto, The
 House of Charity for Distressed Persons in London
 Houseless Poor, Refuge for the
 Infant Orphan Asylum
 Industrial School and Refuge, St. Pancras
 Islington Reformatory and Refuge for Boys
 Jews' Orphan Asylum
 London Orphan Asylum
 Marine Society
 Merchant Seamen's Orphan Asylum
 Night Refuge for Homeless Men
 Orphan Working School
 Ragged and Industrial Schools (Maida Hill)
 Ragged School Union
 Ragged School Shoeblack Society (Central)
 Ragged School Shoeblack Society (West of London)
 Reformatory and Refuge Union
 Refuge for the Destitute
 Refuges for Homeless and Destitute Children (St. Giles and St. George, Bloomsbury)
 Royal Caledonian Asylum
 St. Anne's Society, Royal Asylum of
 School for the Destitute
 Scriptural Knowledge Institution
 South London Ragged School Shoe-Black Society
 Welsh Charity School

7. Refuges, Reformatories, Penitentiaries, &c. for Women and Girls (33).

Asylum for Female Orphans
 British Penitent Female Refuge

Church Penitentiary Association
 Coburg Home, The
 Christian Association for Young Women
 Elizabeth Fry's Refuge
 Establishment for Gentlewomen during Temporary Illness
 Female Orphan Home
 Female Servants' Home Society
 Governesses' Benevolent Institution
 Governesses' English and Foreign Temporary Home (Protestant)
 Guardian Society
 Home for Female Orphans
 Home for Girls (Paddington)
 Homes of Hope
 Industrial Home
 Industrial Home for Girls
 Industrial Home for Girls and Home for Incurable and Infirm Women
 Invalid Asylum
 Kensington Girls' Industrial School
 London Diocesan Penitentiary, The
 London Female Penitentiary
 London Female Preventive and Reformatory Institution
 Magdalen Hospital
 National Society for the Protection of Young Girls
 Provisional Protection Society
 Raines' Charities
 Royal Female Philanthropic Society
 St. James's Home (Hammersmith)
 St. John's House and Sisterhood
 St. Matthew's Home for Female Orphans
 Sailors' Orphan Girls' School and Home
 School of Discipline
 Society for the Rescue of Young Women and Children
 Soldiers' Daughters' Home
 Training Refuge for Destitute Girls

8. *Provident Societies* (11).

Carvers' and Gilders' Asylum
 Cabmen's Home, The
 Congregational Pastors' Insurance Aid Society, The
 Hair Dressers', The British Benevolent and Provident Institution
 Linen and Woollen Drapers, Silk Mercers, Lacemen, Haberdashers, and Hosier's Institution
 Metropolitan Commercial Travellers and Warehousemen's Association
 National Provident Institution
 Provident Dispensary (Paddington)
 Provident Dispensary (Portland-place)
 Provident Society of Dancers and Teachers of Dancing
 Solicitors' Benevolent Association

9. *Religious Societies and Missions* (70).

Army Scripture Readers and Soldiers' Friend Society
 Baptists' Missionary Society

Bible Translation Society
 British and Foreign Bible Society
 British and Irish Baptist Home Mission
 Central Christian Institute
 Central Africa Mission
 Chapel Building Society (London Congregational)
 Christ Church (Chelsea) Parochial Reports
 Church of England Young Men's Society
 Church Missions to Roman Catholics in Great Britain
 Church Missionary Vernacular Schools
 Church Missionary Society, Proceedings of
 Church Pastoral Aid Society
 Christian Vernacular Education Society for India
 City Young Women's Christian Association
 Colonial Bishops' Fund
 Colonial and Continental Church Society
 Colonial Missionary Society
 Columbia Mission
 Country Towns Mission
 Ecclesiological Society
 Employment of Additional Curates in Populous Places
 English Monthly Tract Society
 Evangelical Alliance
 Female Mission to the Fallen
 Foreign Aid Society
 Hawaiian Church Mission
 Home Missionary Society
 Home Teachers and Books, Society for Supplying to the Blind
 Incorporated Society—Enlargement, Building, and Repairing Churches and Chapels
 Irish Evangelical Society
 London City Mission
 London Diocesan Church Building Society
 London Diocesan Home Mission
 London Domestic Mission
 London Missionary Society
 London Society for promoting Christianity amongst the Jews
 Missions to Seamen
 Missions of the United Brethren
 Naval and Military Bible Society
 Open Air Mission
 Operative Jewish Converts' Institution
 Orrissa Mission
 Prayer Book and Homily Society
 Presbyterian Church in England
 Primitive Methodist Missionary Society
 Propagation of the Gospel in Foreign Parts
 Protestant Alliance
 Protestant Association
 Pure Literature Society
 Ragged Church and Chapel Union
 Register of Evangelists
 Religious Tract Society
 St. George's Mission
 Scriptural Knowledge Institution for Home and Abroad
 Seamen's Christian Friend Society
 Society for Promoting Christian Knowledge
 Society for Promoting the due Observance of the Lord's Day

Society for Assisting to Apprentice the Children of Dissenting Ministers of Evangelical Sentiments

Society for Irish Church Missions

Society of S. Anselm for the Diffusion of Good Books

South American Missionary Society

Sunday Rest Association

Thames Church Missionary Society

Trinitarian Bible Society

Turkish Mission Aid Society

Weekly Tract Society

West London Auxiliary to the London City Mission

Young Men's Mutual Improvement Society

10. Educational Charities (24).

British and Foreign School Society

City of London College

Congregational Board of Education

Countess of Huntingdon College

Female School Society, Ladies' Hibernian

Home and Colonial School Society

Home and Colonial Training Institution

Indian Female Normal School, The

Jews' Free School, Westminster

Medical Benevolent College, The Royal

National Society for Promoting the Education of the Poor

Philological School

Queen's College, London

Royal British School for Boys, The City of London

Royal Naval School

Royal Naval Female School

School for the Destitute

St. John's Foundation School

St. John's Servants' School

Sunday School Union

The London Diocesan Board of Education

Welsh Education Committee

Working Men's College

Yorkshire Society's Schools

11. Miscellaneous Charities and Societies (87).

Aged Pilgrims' Friends' Society

Agricultural Benevolent Institution, Royal

Army Medical Officers' Benevolent Society (p)

Architect's Benevolent Society

Artists' Annuity Fund (p)

Artists' Benevolent Fund

Artists' General Benevolent Institution (p)

Associate Institution for the Protection of Women

Association for the Relief of the Poor (p)

Benevolent Society of Blues

Benevolent Society of St. Patrick

British and Foreign Sailors' Society

British Ladies' Society, Reformation of Female Prisoners

Builders' Benevolent Institution

Cab and Omnibus Men's Sunday Rest Society

Cheesemongers' Benevolent Institution

Church of England Book Hawking Union

City of London General Pension Society (p)

City of London Truss Society

Corps of Commissionaires (p)

Covent Garden Theatrical Fund

Cumberland Benevolent Institution (p)

Discharged Criminals, Reformation and Employment of

Discharged Prisoners' Aid Society, The

Discharged Prisoners' Relief Committee

Distressed Widows, Society for the Relief of

Early Closing Association

Employment of Needlewomen, Institution for the

Employment of Women, The Society for promoting the

Female Emigrant Society, British Ladies'

Female Protection, The St. Mary-le-bone

French Benevolent Society

Foreigners in Distress, Society of Friends of

Friend of the Clergy Corporation

Friends of Poland, Literary Association of the

General Domestic Servants' Benevolent Institution

Goldsmiths' Benevolent Institution

Institution for Nursing Sisters

Iron, Hardware, and Metal Trades' Pension Society

Italian Benevolent Society (p)

Justices Clerks' Society (p)

Lambeth Pension Society

Law Association

London Aged Christian Society

London Philanthropic Society

London Street Reform Society

Master Mariners' Benevolent Society

Medical Benevolent Fund

Medical Men, Relief of Widow and Orphans of

Merchant Seamen's Fund (p)

Metropolitan Association for Improving the Dwellings of the Industrious Classes

Minister's Friend or Associate Fund

National Benevolent Institution

National Temperance League

National Truss Society

Organ Builders' Benevolent Institution

Patriotic Fund, Report of Royal Commissioners (p)

Poor Clergy Relief Society

Poor Pious Clergymen, Society for the benefit of

Protestant Union for the Benefit of the Widows

and Children of Protestant Ministers

Railway Benevolent Institution

Royal Benevolent Institution (p)

Royal Humane Society

Royal Literary Fund

Royal National Life Boat Institution

Royal Naval Benevolent Society

Royal Society of Musicians

Royal Society for the Prevention of Cruelty to Animals

Royal Society for the Preservation of Life from Fire

Samaritan Society

Schoolmasters and Schoolmistresses' Benevolent Institution
 Ship Brokers' Benevolent Society
 Shipwrecked Fishermen and Mariners' Royal Benevolent Society
 Society for the Relief of Clergymen, and the Widows and Children of Clergymen
 Society for the Discharge and Relief of Persons Imprisoned for Small Debts
 Society for Relief of Distress
 Society for Schoolmasters
 Society for Improving the Condition of the Labouring Classes
 Society for Promoting the Employment of Women
 Society for the Suppression of Mendicity
 Society for the Suppression of Vice
 Sons of the Clergy, Corporation of the
 Tallow Chandlers' Benevolent Society
 The Nightingale Fund for Training Nurses (p)
 Temporary Home for Lost and Starving Dogs
 United Law Clerks' Society
 United Association for the Christian and Domestic Improvement of Young Women (p)
 Watch and Clock Makers' Benevolent Institution
 Wesleyan Dorcas Society

SECOND GROUP.

1. Hospitals and Infirmaries for Medical Treatment.

Aberdeen—Gordon's Hospital
 Hospital for Incurables (p)
 Ophthalmic Hospital
 Royal Infirmary
Ashton-under-Lyne—District Infirmary
Aylesbury—General Infirmary (p)
Bath—Infirmary for Diseases of the Eye
 Ear and Eye Infirmary
 General or Mineral Water Hospital
 Mineral Water Hospital
 United Hospital
Bedford—General Infirmary
Belfast—Lying-in Hospital
Blackburn—General Infirmary
Berkshire and Reading—Homœopathic Dispensary
 Royal Berkshire Hospital
Bolton (Little)—Infirmary and Dispensary
Bradford—Eye and Ear Hospital
 Infirmary and Dispensary
Bridgwater—Infirmary
Brighton—County Hospital
 Sussex and Brighton Infirmary
Bristol—Hospital for Sick Children
Bury St. Edmund's—Suffolk General Hospital (p)
Cambridge—Addenbrooke's Hospital
Canterbury—General Kent and Canterbury Hospital (p)
Cardiff—Infirmary and Dispensary
Chester—General Infirmary
Chichester—West Sussex, East Hampshire, and Chichester Infirmary and Dispensary (p)

Colchester—Essex and Colchester General Hospital
Coventry and Warwickshire—Hospital
Denbigh—Denbighshire Infirmary and General Dispensary (p)
Derby—Derbyshire General Infirmary (p)
Dorset—County Hospital (p)
Dublin—Adelaide Hospital, The
 Chalmer's Hospital
 Cow Pock Institution (p)
 Hospital for Incurables
 House of Recovery and Fever Hospital
 Institution for the Diseases of Children
 Coombe Lying-in Hospital
 Mercers Hospital
 St. Mark's Ophthalmic Hospital and Dispensary
 Whitworth Medical and Surgical Hospital
Dumfries—Dumfries and Galloway Royal Infirmary
Durham—County Hospital, The
Edinburgh—Eye Infirmary
 Hospital for Sick Children, Royal Edinburgh
 Royal Maternity or Lying-in Hospital
East Sussex, Hastings, and St. Leonard's—Infirmary
Exeter—Devon and Exeter Hospital
 Infirmary for Diseases of the Eye
Gloucester—General Infirmary (p)
Grav. send—Dispensary and Infirmary
Guildford—Royal Surrey County Hospital
Hereford—General Infirmary
Hull—General Infirmary
Huntingdon—County Hospital
Inverness—Northern Infirmary
Leamington—Warneford General Bathing Institution and Leamington Hospital
Leeds—General Infirmary
 House of Recovery
Leicester—Infirmary and Fever House
Lincoln—County Hospital
Liverpool—Hospital for Consumption
 Infirmary for Children
 Northern Hospital
 Royal Infirmary, Lunatic Asylum, and Lock Hospital
 Southern Hospital
Londonderry—City and County Infirmary (p)
Maidstone—Ophthalmic Hospital
 West Kent General Hospital
Manchester—Clinical Hospital and Dispensary
 Eye Hospital
 General Hospital for Sick Children
 Lock Hospital
 Royal Hospital and Dispensary
 Royal Infirmary
 St. Mary's Hospital and Dispensary
Margate—Royal Sea-Bathing Infirmary
Middlesborough—Infirmary
Monmouth—General Hospital (p)
Northampton—The Cottage Hospital (p)
 General Infirmary
Nottingham—Eye Infirmary
 General Hospital
Norwich—Norfolk and Norwich Hospital

Paisley—Infirmary and Dispensary
Plymouth—South Devon and East Cornwall Hospital
 Royal Eye Infirmary
Scarborough—Royal Northern Sea-Bathing Infirmary
Shrewsbury—Salop Infirmary (p)
Southampton—South Hants Infirmary
Stafford—General Infirmary
Sunderland—Hospital for Sick Children Infirmary and Dispensary
Swansea—Infirmary
Taunton and Somerset—Hospital
Wakefield—Clayton Hospital
Walsall—Cottage Hospital
Waterford—New Ross Houghton Fever Hospital
 New Ross Lying-in Hospital (p)
Winchester—County Hospital
Worcester—General Infirmary
 Ophthalmic Institution (p)

2. Dispensaries.

Aberdeen—Dispensary, Vaccine, and Lying-in Institution (p)
Bath—Eastern Dispensary
 Western Dispensary
 Southern Dispensary (p)
Beverly—Dispensary
 Lying-in Charity (p)
Bideford—Dispensary (p)
Brighton and Hove—Lying-in Institution
Canterbury—Dispensary
 Lying-in Charity (p)
Chichester—Lying-in Charity (p)
Colchester—Lying-in Charity
Deal and Walmer—Dispensary and Infirmary
Edinburgh—New Town Dispensary
 Royal Dispensary
 Society for Relief of Poor Married Women
Exeter—Dispensary
 Homœopathic Dispensary (p)
 Lying-in Charity (p)
Evesham—Lying-in Charity (p)
Falmouth—Public Dispensary and Humane
Hastings—Dispensary
 Lying-in Charity (p)
Hereford—Dispensary
Hull and Sculcoates—Dispensary (p)
 Lying-in Charity (p)
Jedburgh—Dispensary (p)
Lancaster—General Dispensary and House of Recovery
Leamington—Dispensary for the Homœopathic Treatment of Chronic Disease (p)
Leeds—Public Dispensary
Lincoln—General Dispensary
Liverpool—North Dispensary
 South Dispensary
 East Dispensary
Monmouth—Dispensary (p)
Northampton—Royal Victoria Dispensary
Nottingham—Dispensary for the Relief of the Sick Poor

Penzance—Public Dispensary (p)
Plymouth—Public Dispensary
Preston—Dispensary
St. Leonards—Lying-in Charity (p)
Scarborough—Dispensary
Southampton—Dispensary and Humane Society
Wigan—Dispensary
Worcester—Dispensary

3. Asylums for Lunatics and Idiots.

Aberdeen—Royal
Aylesbury—Buckingham County Pauper
Bath—Idiot
Bedford, Hertford, and Huntingdon—The 'Three Counties Asylum'
Belfast—District Hospital for the Insane
Cambridgeshire—Pauper
Cheshire—County
Cumberland and Westmoreland—County
Derbyshire—County
Devon—Lunatic Asylum
Dorset—County Lunatic Asylums
Dublin—Richmond District Lunatic Asylum
 St. Patrick's Hospital for Idiots
Dumfries—Crichton Royal Institution
Durham—County Asylum
Eastern Counties—Asylum for Idiots and Imbeciles
Edinburgh—Royal Asylum for the Insane
Essex—Lunatic Asylum
Gloucester—County Lunatic Asylum
Hants—County Lunatic Asylum
Kent—County Lunatic Asylum
Lancaster, Prestwich, and Rainhill—County Lunatic Asylums
Lincoln—Lunatic Hospital
Lincolnshire—County Lunatic Asylum
Littlemore—Lunatic Asylum
Monmouth—Joint Lunatic Asylum
Newcastle-upon-Tyne—Pauper Lunatic Asylum
Norfolk—Lunatic Asylum
Northampton—General Lunatic Asylum
North Wales—Counties Lunatic Asylum
Nottingham—County and Borough
Nottingham—County and Town
Northumberland—Pauper
Prestwich—County
Salop and Montgomery—Counties
Somerset—County Pauper
Stafford—County
Staffordshire—County
Suffolk—Lunatic Asylum
Surrey—Lunatic Asylum
Sussex—County Lunatic Asylum
Wakefield—Pauper Lunatic Asylum
Warwick—County Lunatic Asylum
Wilts—County Asylum
Worcester—County and City Pauper

4. Asylums and Charitable Societies for the Blind, Deaf, and Dumb.

Aberdeen—Institution for Deaf and Dumb
Bath—Blind School
 Institution for the Blind, Deaf, and Dumb

Belfast—Ulster Society
Brighton—For Instruction
 Institution for the Deaf and Dumb
Bristol—Asylum for the Blind
 District Institution of the Deaf and Dumb
Doncaster—Deaf and Dumb Children
Dublin—Catholic Institution for the Deaf and Dumb
 Richmond National Institution for the Instruction of the Blind
 St. Mary's Catholic Asylum for Industrious Female Blind
 The National Institution and Molyneux Asylum for the Blind of Ireland
Edinburgh—Asylum for the Indigent and Industrious Blind
 Deaf and Dumb Benevolent Society
 Deaf and Dumb Institution
 Association for the Education of the Blind
 School for Blind Children
Hastings—Society for the Instruction and Relief of the Blind
Leicester—Association for Promoting the General Welfare of the Blind
Liverpool—School for the Deaf and Dumb
 School for the Indigent Blind
 Workshops for the Blind and Home Teaching Society for the Out-door Blind
Londonderry—Deaf and Dumb School
Manchester—Adult Deaf and Dumb Benevolent Association
 Henshaw Blind Asylum
Nottingham—Midland Institution for the Blind
Paisley—Society for the Blind
Swansea—Cambrian Institution for the Deaf and Dumb

5. Asylums for the Indigent.

Brighton—Howell's Almshouses
Dublin—Methodist Asylum for Aged Christian Females
 Royal Medical Benevolent Fund
Edinburgh—Convalescent House
Falmouth—Royal Sailors' Home and Infirmary (Cornwall)
Hastings—Home for Invalid Gentlewomen
Leicester—Trinity Hospital
Margate—The Alexandra Philanthropic Home
Newark—St. Leonard's Hospital

6. Refuges, Reformatories, Ragged Schools, etc., for Men and Boys.

Aberdeen—Gordon's Hospital (p)
 House of Industry and Refuge
 Industrial School Association
 Old Mill Reformatory School
Bath—Evening Ragged School Society
 Refuge for the Destitute
 Sutcliffe Industrial School
Belfast—Night Refuge for the Homeless Poor

Birmingham—Penn Street Ragged and Industrial Schools
Bolton—Industrial Ragged School
 Luke Boardman's Ragged Schools
Brighton—Fishermen's Club and Home (p)
 Home for Invalid Children (p)
 Home for Orphan Boys (p)
Bristol—Park Row Certified Industrial School
Chester—Certified Ragged Industrial School Society
Colchester—Ragged Schools
Dublin—General Orphan Home
 Male Orphanage of the Society of St. Vincent de Paul (p)
 Night Asylum for the Houseless Poor
 Orphan Refuge
 Protestant Orphan Society
 Ragged School and Refuge
 Saint Brigid's Orphanage
 Protestant Orphan Society (Donegal)
Dumfries—Hospital for the Maintenance, Education, and Guardianship of Destitute Orphans
Edinburgh—Cauvin's Hospital
 Donaldson's Hospital (p)
 George Heriot's Hospital
 The House of Refuge for the Destitute
 Wellington Reformatory Farm School
Gloucester—Industrial Ragged School
Gravesend—Ragged School and Penny Bank
Hastings—Ragged Schools
 Society and Sailors' Orphan Home
Leeds—Guardian Society
 Ragged and Certified Industrial School
 Reformation of Juvenile Offenders
Liverpool—Asylum for Orphan Boys
 Industrial Ragged Schools
 Infant Orphan Asylum
 The Kirkdale Industrial Ragged School
 Training Ship 'Indefatigable'—for the Sons and Orphans of Sailors and other Poor and Destitute Boys
Londonderry—Gwyn's Charitable Institution
 Protestant Orphan Society
 Ragged and Industrial School
Manchester—Heyrod Street Night Asylum
 Ragged School and Mission Hall
 Reformatory for Juvenile Criminals
Nottingham—Ragged School
Oldham—Ragged School Society
Paisley—Ragged School
 Reformatory Institution (Miss Kibble's)
Preston—Mill Hill Ragged School
Southampton—Boys' Industrial Ragged School
Sunderland—Ragged and Industrial School
Worcester—County and City Orphan Asylum

7. Refuges, Reformatories, Penitentiaries, etc., for Women and Girls.

Aberdeen—Industrial Asylum and Reformatory
 Sheriff Watson's Female Industrial School
Bath—Home for Nurses (p)
 Limpley Stoke Reformatory School for Girls
 Penitentiary

Belfast—Provident Home for Friendless Females
The Ulster Female Penitentiary
Birmingham and the Midland Counties
Magdalen Asylum
Bradford—Female Refuge
Brighton—Asylum for Poor Females
Female Servants' Home
Girls' Industrial Home
Home for Female Penitents
Bristol—Asylum for Poor Orphan Girls
Female Refuge Society
Industrial Home for Destitute Girls
Park-row Asylum
Preventive Branch Female Mission Society
Red Lodge Girls' Reformatory School
Young Women's Christian Association and Home
Chester—Female Home
Female Penitentiary
Clifton—Home for Friendless Young Women of Good Character
Colchester—Industrial School (p)
Devon and Exeter—Female Penitentiary
Dublin—Asylum for Aged Females
Derry Female Penitentiary (p)
Diocesan Society for assisting the Widows and Orphans of the Clergy (p)
Female Penitentiary
Drummond Institution for the Orphan Daughters of Soldiers
Heylesbury-street Asylum
House of Refuge
Providence Home
St. Vincent's Female Orphanage
School for educating the Daughters of the Irish Clergy
Shelter for Females Discharged from Prison
Solomon Walker's Methodist Female Orphan School
The Midnight Mission and Female Refuge
Dumfries and Maxwelltown,
Female Industrial Home
Durham—County Penitentiary
Diocesan Female Training School
Durham and Northumberland
Girls' Reformatory
Edinburgh—Association of Elder's Wives and Daughters
Dean Bank Institution for the Reformation of Juvenile Female Delinquents
Girls' House of Refuge
Industrial Home for Fallen Women
Magdalen Asylum
Trades Maiden Hospital
Training Home for Friendless Girls
Exeter—Female Refuge
Servants' Home
St. Martha's Orphanage and Nursery
Falmouth—Maria Camilla Training School (p)
Hastings—School of Industry
Hereford—St. Martin's Home for Penitents
Hull—Female Penitentiary
Temporary Home for Fallen Women
Leamington—Female Penitentiary
Female Temporary Home

Leicester—The Newarke Female Asylum
Liverpool—Benevolent Society
Female Orphan Asylum
Female Penitentiary
Girls' Industrial and Ragged Schools
Lancashire Female Refuge
Magdalen Institution
Toxteth Park Girls' Reformatory School
Lincoln—Penitent Females' Home
Manchester—Female Orphan Asylum
Female Refuge and Servants' Home
Governess's Institution and Home
Juvenile Female Refuge
St. Mary's Home Church House of Refuge
Nottingham—Girls' Industrial Training Institution
Plymouth—Female Orphan Asylum
Female Penitentiary
Ripon—Industrial Home for Girls
Southampton—County of Hants Female Penitentiary (p)
Swansea—House of Mercy

8. Provident Societies.

Aberdeen—National Security Savings' Bank
Banbury—Band of Hope (p)
Bank for Savings (p)
Co-operative Industrial Society Limited (p)
Dorcas Society (p)
United Christian Benefit Society (p)
Bath—Bathwick Provident Society (p)
Friendly Society
Blackburn—Philanthropic Burial Society
Bolton—Bank for Savings (p)
Brighton—Provident and District Society
Provident Dispensary
Bristol—Trade Protection Society
Canterbury—Benevolent Fund
Colchester—Provident Asylum Society
Provident Labourers' Society (p)
Edinburgh—Friendly Society of Dissenting Ministers in Scotland
Exeter—West of England Building Society (p)
Western Provident Association (p)
Evesham—Guesham and Bengeworth Medical Provident Institution
Falmouth—Blanket Club (p)
Coal Provident Society (p)
Industrial Report (p)
Penny Bank (p)
Provident Clothing Society (p)
Savings Bank (p)
Grantham—Contributory Coal Society (p)
Old Amicable Society (p)
Savings Bank (p)
Self Aiding Dispensary (p)
Union—Independent Labourers Self Aiding Medical Club (p)
Hastings and St. Leonards—Hastings Blanket Lending Society (p)
Hastings and St. Leonards Penny Bank (p)
St. Leonards Provident Clothing and Coal Clubs (p)
St. Mary's Clothing and Provident Society (p)

Hereford—Clothing Society (p)
Savings Bank (p)
Leamington—Permanent Benefit Building Society
Leicester—Provident Dispensary
Provident Institution or Bank for Savings (p)
Lincoln—Savings Bank (p)
Liverpool—Governesses' Benevolent Institution
Provident Society
Londonderry—Savings Bank (p)
Manchester—District Provident Society (Manchester and Salford)
Hulme Philanthropic Burial Society
Industrial Co-operative Society (p)
Provincial Licensed Victuallers' Defence League
Newark—Provident Clothing Society
Wesleyan Friendly Society
Northampton—Artizans and Labourers' Friend Society
Nottingham—Provident Medical Aid Institute
Preston—District Provident Society (p)
Waterford—New Ross Dorcas Society (p)
Wolverhampton—Sick Club
York—Penny Savings Bank

9. Religious Societies and Missions.

Aberdeen—Evangelistic Association
Banbridge—Bible Society
Banbury—Auxiliary Bible Society
Auxiliary Society for promoting Christianity among the Jews
Church Missionary Society and North Oxfordshire Association
Society for promoting Christian Knowledge and for the Propagation of the Gospel in Foreign Parts
Sunday School Union
Temperance Society
Bath—Observance of the Lord's Day
Auxiliary Bible Society
Bible and Domestic Female Mission
Church Pastoral-Aid Association
Church of England Young Men's Society
City Mission
Evangelical Alliance
Protestant Alliance
Religious Tract Society
Society for Promoting Christian Knowledge
Young Men's Christian Association
Belfast—Sabbath School Society for Ireland
Brighton—Auxiliary to the United British Army Scripture Readers' and Soldiers' Friend Society
Auxiliary to the London Society for Promoting Christianity among the Jews
Bible Women's Mission
Church Missionary Association
East Sussex Auxiliary to the British and Foreign Bible Society
Home Missionary Society (Sussex)
Ladies' Bible Association
Society for Promoting Christian Knowledge
Town Mission
Bristol—Seamen's Friend Society and Bethel Union
Young Men's Christian Association
Chester—City Mission
Chichester—Diocesan Association
Society for the Propagation of the Gospel in Foreign Parts
Society for Promoting Christian Knowledge
Temperance Society
West Sussex Book-Hawking Association
Coventry—Young Men's Association
Dublin—Church Education Society
City Mission
Hibernian Bible Society
Home Missionary Society
Irish Clergy Sons Education Society
Irish Society—for promoting the Scriptural Education and Religious Instruction of Irish Roman Catholics
Island and Coast Society
Protestant Association
Scripture Readers' Society for Ireland
Sunday School Society for Ireland
Dumfries—Town Mission
Edinburgh—Religious Improvement of the Remote Highlands and Islands
City Mission
Ladies' Continental Association, The
Ladies' Association on behalf of Jewish Females
Medical Missionary Society
Female Missions in connection with the Church of Scotland
Home Missionary Society
Scottish Coast Mission
Scottish Ladies' Society's Mission
Scottish Episcopal Church Society
Society in Scotland for propagating Christian Knowledge
The Howard Association
The Religious Tract Society
Exeter—Society for promoting Christian Knowledge
Falmouth—Auxiliary Bible Society, British and Foreign
Auxiliary to the Religious Tract Society
British and Foreign Sailors' Society
Scripture Readers' Society
Glasgow—National Bible Society of Scotland
Scottish Christian Unitarian Association
Leeds—Auxiliary Bible Society
Church Institute and Sunday School Association
Church Missionary Association
Ladies' Bible and Household Mission
Religious Tract Society
Town Mission
Young Men's Christian Association
Leicester—Domestic Mission Society
Temperance Society

Liverpool—Church Aid Society
 Christian Men's Union and Workmen's Hall
 Diocesan Society, The
 German Church
 Ladies' Parochial Bible and Domestic Mission
 Mariners' Church Society
 Society for Missions to Seamen
 Town Mission
Londonderry—Bible and Colportage Society of Ireland
 Presbyterian City Mission
 Presbyterian Bible Women's Mission
 Presbyterian Church
 Presbytery of Derry
 Presbytery of Donegal
 Young Men's Christian Association
Manchester—Church Institute
 City Mission
 Diocesan Church Building Society
 Gaythorn Christian Institute
 United Kingdom Alliance
 Young Men's Christian Association
Middlesburgh—Town and Sailors' Mission
Nottingham—Mission Hall
 Narrow Marsh Ragged School
 Town Mission and Mission Ragged Schools
Paisley—National Bible Society of Scotland
 Sabbath School Union
 Society for the Monthly Distribution of Tracts
Penzance—Town Mission
Plymouth—Town Mission
Preston—Orphan Sabbath School
 Religious Tract Society Auxiliary
 Temperance Society
Sunderland—Auxiliary Bible Society
Wakefield—Church Institution
Wigan—Sunday School Union
Worcester—Church Choral Association

10. Educational Charities.

Banbury—Christ Church Schools (p)
 Church Passage Infant School (p)
 National Schools for Boys, Girls, and Infants (p)
Bath—Bathwick Victoria Infant School
 Blue Coat School
Beverley—Boys National School (p)
 Foundation School
 Girls and Infant Schools (p)
 National School (Woodmansey and Thearne) (p)
 National School (St. Mary's) (p)
 National School (Tickton) (p)
 Wesleyan School (p)
Bideford—British School (p)
 Infant School (p)
 National and Sunday School (p)
Birmingham—Blue Coat Charity School
 Proprietary School
 Protestant Dissenting School
 Spring Hill College
Bolton—British School

Brighton—St. Mary's Hall
 Agnew House Institution for Training Servants
 Sussex Board for Local Examinations
 „ Educational Association
Chichester—Boys and Girls School
 Central National Schools
 Infant's School
Colchester—Church of England Charity Schools
 Infant School
 National Schools (p)
Denbigh—National Schools
Derby—National Schools, St. Peter's Parish
Dublin—Newtown and Mount Mellick Schools
 Queen's Institute
Dumfries & Maxwelltown—Benevolent Society's Schools
 Education Society
Durham—Education of Schoolmasters
Edinburgh—Angus Club
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Evesham—Bengeworth School and Charitable Institution (p)
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 Deacles Blue Coat School
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Hunslet (Leeds)—National and Sunday Schools
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Lancaster—National and Sunday Schools, St. Anne's
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Penzance—Grammar School
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Reading—Boys' British School
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11. Miscellaneous Charities and Institutions.

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Bradford—Tradesmen's Benevolent Institution
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 Edwd. Joye's Charity, and
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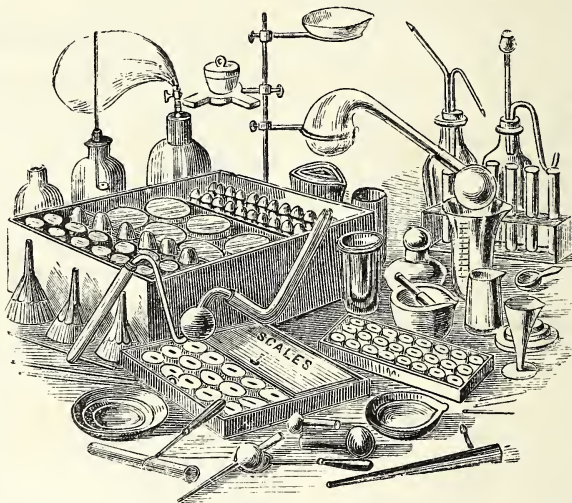
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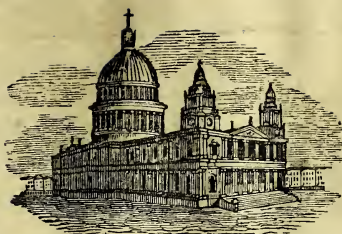
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